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NUNAVUT WATER BOARD HEARING

RE: MEADOWBANK GOLD MINE PROJECT TYPE A WATER LICENSE

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HEARING HELD AT THE  
COMMUNITY CENTRE  
BAKER LAKE, NUNAVUT  
APRIL 16, 2008

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1 APPEARANCES:  
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4 Mr. G. Kakkiarniun Member  
5 Mr. G. Porter Member  
6 Mr. T. Tatatuapik Member  
7 Mr. R. Hanson (by phone) Member

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3 -Mr. M. Nadler Nunavut Regional Director  
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17 -Mr. J. Lindell

18 -Ms. J. Ehaloak

19 -Mr. L. Manzo

20 -Mr. S. Hartman Environmental and Water Officer,  
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1 (PROCEEDINGS COMMENCED AT 9:02 A.M.)  
2 THE CHAIR: Please feel welcome. Bob, I  
3 didn't hear you; are you on the line?  
4 MR. HANSON: I'm sorry, I didn't hear  
5 you. I am here, Lootie. Thank you very much.  
6 THE CHAIR: Thank you. So before we go  
7 on, carry on the business for the day, I like to ask Guy  
8 Kakkiarniun to say a prayer.  
9 (OPENING PRAYER)  
10 THE CHAIR: Thanks, Guy. Can I ask  
11 Dionne to do the housekeeping for us before we go on --  
12 okay, or the Staff. Go ahead.  
13 PROCEDURAL MATTERS:  
14 MR. CARR: Thank you, Mr. Chair. Don  
15 Carr here.  
16 I have a few more items to enter as exhibits, if  
17 there are no objections. Exhibit Number 4, electronic  
18 INAC MG Water License Presentation, April 2008,  
19 submitted by Michael Nadler; Item 5, hard copy Indian  
20 and Northern Affairs, Meadowbank Gold Project, April  
21 2008, submitted by Michael Nadler; Exhibit 6, electronic  
22 "AEM Public Community Presentation\_r3", April 2008,  
23 submitted by Larry Connell; Exhibit 7, the hard copy AEM  
24 Community Presentation Meadowbank Gold Mine Project,  
25 April 2008, submitted by Larry Connell. That's it.  
26 THE CHAIR: Thank you. Any objection to

1       this? Thank you. I take it there's none.  
2               EXHIBIT NO. 4:  
3               ELECTRONIC INAC MG WATER LICENSE PRESENTATION,  
4               APRIL 2008, SUBMITTED BY MICHAEL NADLER.  
5               EXHIBIT NO. 5:  
6               HARD COPY INDIAN AND NORTHERN AFFAIRS,  
7               MEADOWBANK GOLD PROJECT, APRIL 2008, SUBMITTED  
8               BY MICHAEL NADLER.  
9               EXHIBIT NO. 6:  
10              ELECTRONIC "AEM PUBLIC COMMUNITY  
11              PRESENTATION\_R3", APRIL 2008, SUBMITTED BY LARRY  
12              CONNELL.  
13              EXHIBIT NO. 7:  
14              HARD COPY AEM COMMUNITY PRESENTATION MEADOWBANK  
15              GOLD MINE PROJECT, APRIL 2008, SUBMITTED BY  
16              LARRY CONNELL.  
17      INAC RESPONSE TO AEM QUESTION:  
18      THE CHAIR:                      So we'll carry on from  
19      yesterday's agenda. Could I ask INAC to come back to  
20      intervention table. Okay, thank you, INAC. Does Staff  
21      have some more questions?  
22      MR. NADLER:                     Mr. Chair, if you will --  
23      THE CHAIR:                     Before we carry on --  
24      MR. NADLER:                     -- I was hoping --  
25      THE CHAIR:                     Sure, Michael, go ahead.  
26      MR. NADLER:                     Thank you. Mr. Chair, I was

1 hoping, if you will, that we might clarify a response to  
2 a question we received yesterday.  
3 THE CHAIR: Staff? Okay, yes.  
4 MR. NADLER: We'd just like to clarify a  
5 response to one of the questions that was posed  
6 regarding cover layer on waste rock. Might we begin?  
7 THE CHAIR: Yes, sure.  
8 MR. NADLER: Thank you, Mr. Chair.  
9 THE CHAIR: Go ahead.  
10 MR. NADLER: Again, we were hoping to  
11 clarify a response to a question received yesterday  
12 regarding cost estimates for reclamation and the depth  
13 of rock cover over waste rock and tailings.  
14 The Proponent's cost estimates for reclamation are  
15 based on the use of a cover of 2.5 metres based on their  
16 presentation of yesterday over waste rock and tailings.  
17 INAC has two concerns regarding the depth of cover  
18 proposed by Agnico-Eagle, one of these relates to  
19 modelling, the other to the Ekati example.  
20 Cover over waste rock is meant to bury waste rock  
21 deeply enough that it freezes permanently. Each winter,  
22 as all of us know, the ground freezes to the surface.  
23 Each summer, it thaws to a certain depth. The space  
24 between the surface and the deepest level of thawing is  
25 called the active layer.  
26 With regard to modelling, for its modelling on

1 reclamation and rock cover, the Proponent considered an  
2 active layer of 2 metres. However, we know from site  
3 data collected at the Meadowbank site that the depth of  
4 the active layer is closer to 2.15 metres. Given that  
5 the active layer is already deeper than the Proponent's  
6 models and given that on-site data reflects solid  
7 ground, which freezes more quickly than rock piles, INAC  
8 has limited confidence in the Proponent's estimate.

9 With regard to the Ekati example, we recognize that  
10 the Ekati mine is in a slightly different climatic zone  
11 than the Meadowbank Project. However, there are  
12 important similarities, primary among these similarities  
13 is that the Ekati's monitoring data is for rock piles.  
14 As we know, rock piles are looser than solid ground.  
15 There's more air permeation. They have a different  
16 characterization than solid ground with regard to  
17 freezing and thawing of permafrost. Moreover, even if  
18 the two projects are in different parts of the Arctic,  
19 the difference between the Ekati estimate of 5 metres  
20 and the Proponent's estimate of 2 metres is quite  
21 significant. So in comparing its own estimate, our  
22 Department felt that the 5 metres found at Ekati would  
23 be too conservative for the climate around Baker Lake,  
24 but that 2 metres or even 2.5 metres is likely too  
25 optimistic, and we struck a balance at 4 metres for our  
26 estimates.



1           Given that the Board might be contemplating a  
2 two-phase water license and given that the Proponent  
3 will be undertaking progressive reclamation, we would  
4 make three recommendations.

5           The first recommendation would be that the initial  
6 license base its assessment of security for first five  
7 years of mine life and mine operations on a 4 metre  
8 cover. This would be a conservative response to the  
9 lack of good data on the active layer.

10          The second would be that the Proponent undertake a  
11 physical testing of different cap depths and designs  
12 over different types of waste rock and monitor the  
13 results and provide these annually to the Water Board.

14          The third would be to require that the Proponent  
15 prepare and submit a plan for this testing and  
16 monitoring within 12 months of the date of the license.  
17 With good physical testing and monitoring information in  
18 hand, security estimates for the waste rock cover for  
19 the second licensing phase and the remainder of the mine  
20 life would be much more accurate as they would reflect  
21 five years of active layer data collection.

22          Thank you, Mr. Chair.

23 THE CHAIR:                               Thank you, INAC. Staff, any  
24 more questions? Dionne?

25 MS. FILIATRAULT:                       Mr. Chairman, before we  
26 continue with questions from the Staff, because this is

1 sort of new information and is a new recommendation  
2 that's tabled, I think it's only appropriate to allow  
3 Agnico to respond.  
4 THE CHAIR: Thank you. Agnico?  
5 MR. CONNELL: Thank you, Mr. Chairman.  
6 I would like to respond to that, but I'd also like  
7 some time to prepare on that basis, so I propose that I  
8 do that response at the -- when we have an opportunity  
9 to do the replies, if that would be okay with you.  
10 THE CHAIR: Yes, it's okay.  
11 MR. DONIHEE: Mr. Chairman, John Donihee.  
12 Perhaps the Staff could finish their questions of  
13 INAC, and that would give us a few moments just to  
14 gather our thoughts before we reply.  
15 THE CHAIR: Okay, thank you. Staff?  
16 CONTINUED NWB STAFF QUESTION INAC:  
17 MR. HOHNSTEIN: Thank you, Mr. Chair. Dave  
18 Hohnstein.  
19 Steve's finished. Karlette, did you want to carry  
20 on?  
21 MS. TUNALEY: You go ahead.  
22 MR. HOHNSTEIN: I'll do mine. Okay, Dave  
23 Hohnstein.  
24 Just one clarification question for INAC, and  
25 unfortunately I didn't write down the page number on the  
26 presentation in the intervention, but there was a

1 reference to the discharge from Tear Drop Lake based on  
2 the industrial waste discharge guidelines, and we would  
3 like clarification as to why those guidelines were  
4 referenced rather than the guidelines for discharge of  
5 treated municipal waste water.  
6 THE CHAIR: Thank you, INAC?  
7 MR. NADLER: I think we'd recommend that  
8 our -- given the question has a relatively technical  
9 answer, we'd prefer our technical specialist be sworn in  
10 to respond. Thank you, Mr. Chair.  
11 KEN ARMSTRONG, sworn:  
12 MR. ARMSTRONG: Ken Armstrong, Mr. Chairman.  
13 With respect to the industrial discharge, the  
14 concern that we have is that the quality of effluent --  
15 back up a step here. Between the technical hearing and  
16 our hearing today, Agnico-Eagle provided some updated  
17 information with respect to the quality of effluent  
18 arising out of the sewage treatment plant before it's  
19 discharged to Tear Drop Lake.  
20 Now, the quality of effluent proposed to be  
21 discharged from Tear Drop Lake to the environment was  
22 established or identified as 25 milligrams per litre BOD  
23 and 25 milligrams per litre total suspended solids. The  
24 information that Agnico-Eagle provided from their  
25 manufacturer, from the supplier of the sewage treatment  
26 plant, indicated that the total suspended solid levels

1 would be 100 milligrams per litre and 80 milligrams per  
2 litre BOD, so 100 milligrams per litre of suspended  
3 solids.

4 This provides us quite a bit of discomfort in that  
5 discharging that level of effluent to Tear Drop Lake  
6 will make it very difficult to achieve the water quality  
7 levels required for discharge to the environment.

8 Therefore, in looking at the guidelines for  
9 industrial water quality for the Nunavut area, January  
10 2002, sewage treatment levels indicated in that document  
11 indicate an average of about 15 milligrams per litre  
12 total suspended solids and BOD prior to entering Tear  
13 Drop Lake. We would be satisfied with seeing that the  
14 sewage treatment plant would provide a level of  
15 treatment that would ensure that the 25 milligrams per  
16 litre suspended solids and BOD are achievable from Tear  
17 Drop Lake.

18 And the other item is that Tear Drop Lake is also a  
19 storm water receiver, so it's also acting as a dual  
20 function in that capacity.

21 THE CHAIR: Thank you. Any more  
22 questions from Staff?

23 MR. HOHNSTEIN: Thank you, Mr. Chairman.

24 Yes, we do have about three more questions.

25 MS. TUNALEY: Thank you, Mr. Chair.

26 My questions again are clarifications, and I'll just

1 refer to the written intervention. On page 5, regarding  
2 Part D, "Conditions Applying to Construction", there's a  
3 table there that provides timetables for submissions to  
4 the Board for specific and nonspecific structures  
5 related to water use. And I'm just wondering if you  
6 could clarify what this table means as far as the dates  
7 and that are concerned. It says, for example, "Dams and  
8 dikes ten days"; is that ten days following some  
9 specific time?

10 THE CHAIR: Thank you, Staff.  
11 MR. NADLER: Mr. Chair, it will just take  
12 me a moment to absorb the page. It's part of a broader  
13 sweep of information. It will just take me a moment to  
14 absorb.

15 THE CHAIR: If you need question time,  
16 we can take a break.

17 MR. NADLER: I think we'll give an answer  
18 in just a moment, Mr. Chair. Forgive us, it's just --  
19 there's a table at the back of the intervention. It  
20 will just take me a moment.

21 THE CHAIR: Okay.  
22 MR. NADLER: Thank you for your patience,  
23 Mr. Chair.

24 This table relates to the adaptive management  
25 approach that would be undertaken during mine  
26 construction and mine operations, so it assumes that

1 plans that are included in the approved Nunavut Water  
2 Board management plan might be changed due to  
3 adaptation. And so what these time frames are are  
4 advanced dates to inform the Water Board of the  
5 information on a subsequent page, on page 6 of that. So  
6 that information would be provided because what we're  
7 seeing is an adaptation to the existing plan, according  
8 to the time frame found in the second -- or, rather, in  
9 the two columns.

10 So what it is is it's just an -- the time frames are  
11 in advance of the construction or the measure of the  
12 step.

13 Mr. Chair, I hope that responds sufficiently to the  
14 question. We should have made that clear. I regret  
15 it's kind of implicit, not explicit, in the text.

16 MS. TUNALEY: That helps. Thank you very  
17 much. My next question, Mr. Chair?

18 THE CHAIR: Yes, go ahead.

19 MS. TUNALEY: Yesterday I think Steve  
20 asked you a question about your recommendation that  
21 noncontact water be monitored and asked if it should be  
22 regulated, and you said yes, INAC said yes to that. So  
23 my question in follow-up is what standards would you  
24 recommend that discharge be regulated to?

25 THE CHAIR: Thank you. INAC?

26 MR. ARMSTRONG: Mr. Chairman, Ken Armstrong.

1           The water standards for noncontact should be the  
2 industrial water quality levels 2002 for Nunavut. The  
3 appropriate title is the Nunavut Department of  
4 Sustainable Developments Guidelines for Industrial Waste  
5 Water Standards. I believe it's January 2002.  
6 THE CHAIR:                           Thank you. Any more  
7 questions, Karlette?  
8 MS. TUNALEY:                       Thank you, Mr. Chair. I  
9 have one more question.  
10          Regarding the incinerator and INAC's recommendation  
11 on page 10 of their written intervention, again, a  
12 clarification with respect to the appropriate ash  
13 standards for the disposal of bottom ash from the  
14 incineration of municipal wastes. If I could get  
15 clarification regarding what standard they're referring  
16 to.  
17 THE CHAIR:                       Thank you. INAC?  
18 MR. ARMSTRONG:                   Mr. Chairman, could I get a  
19 clarification on which page you're talking about?  
20 THE CHAIR:                       Karlette?  
21 MS. TUNALEY:                   It's page 10.  
22 MR. ARMSTRONG:                   Mr. Chairman, Ken Armstrong.  
23 I'll just read part of our -- or the text in our  
24 intervention. It reads: (As Read)  
25           Agnico-Eagle should analyze the ash produced  
26           from the incineration of organics, organic

1                   wastes, and sludges prior to disposal of ash in  
2                   the landfill. Appropriate ash standards, such  
3                   as those used for the disposal of bottom ash,  
4                   from the incineration of municipal wastes should  
5                   apply.  
6       I believe the reference for this should be the CCME  
7       guidelines for incineration.  
8       THE CHAIR:                   Thank you. Any more  
9       questions from Staff? Thank you.  
10      I like to ask Bob Hanson, do you have a question,  
11      Bob?  
12      MR. HANSON:                   Bob Hanson, Mr. Chairman.  
13      No, I don't have a comment. I would like to make sure  
14      that all people speaking say their name first for the  
15      record. Thank you, Mr. Chair.  
16      THE CHAIR:                   Thank you, Bob. You have  
17      any questions, Nunavut Water Board? Tommy?  
18      NWB QUESTIONS INAC:  
19      MR. TATATUAPIK:               My name is Tommy Tatatuapik.  
20      I'm a Board Member of the Nunavut Water Board. In  
21      regards to the plastic, the plastic bags and so on, and  
22      some scrap metals, are they going to be separated, or  
23      are they going to burn them in incinerator? They tend  
24      to be hazardous to the air. Are they going to burn them  
25      or destroy them in different incinerators?  
26      THE CHAIR:                   Thank you. INAC?



1 MR. ARMSTRONG: Ken Armstrong, Mr. Chairman.  
2 Could I have you repeat the beginning of that  
3 question? I didn't have the monitor on the right  
4 channel here.  
5 THE CHAIR: Please repeat your question,  
6 Tommy, the first part of your question.  
7 MR. TATATUAPIK: My name is Tommy Tatatuapik  
8 of the Nunavut Water Board. I was referring to plastic.  
9 They tend to be hazardous to -- when they are being  
10 burned through incinerator, and also scraps such as  
11 metals, are they going to be separated and burn them in  
12 separate incinerators?  
13 THE CHAIR: Thank you. INAC?  
14 MR. ARMSTRONG: Mr. Chairman, Ken Armstrong.  
15 The question should actually be directed to  
16 Agnico-Eagle. However, the comments that we have  
17 received and reviewed thus far indicate that only  
18 organics are going to be and sewage sludge are going to  
19 be burned in the incinerator. Therefore, plastics and  
20 metals and other like materials that would be found in  
21 the waste stream will be separated and taken to the  
22 landfill.  
23 MR. LANDA: Mr. Chair, if I could follow  
24 up on that, please. It's Ken Landa from Justice Canada.  
25 There may actually be a need for Agnico-Eagle to  
26 clarify that because my understanding of the evidence

1 was that packaging materials that came into contact with  
2 food were being classified as organics, so maybe we do  
3 need to hear from Agnico-Eagle on that.

4 THE CHAIR: Thank you. Larry?

5 AEM RESPONSE TO NWB QUESTION:

6 MR. CONNELL: Thank you, Mr. Chairman.  
7 Larry Connell.

8 All what you've heard is correct; the company will  
9 be segregating metals. Those will go to the landfill.  
10 We will segregate the plastics that are normally part of  
11 our operation, they would also be segregated, taken to  
12 the landfill.

13 The only thing that would be incinerated would be  
14 packaging that comes in contact with food, and some of  
15 that may be plastics, some of it will be cardboard, some  
16 will be other materials. And also we will have the  
17 plastic bags obviously that the kitchen scraps are in,  
18 those would be going to the incinerator stream, but  
19 those would be the only plastics that would go to the  
20 incinerator stream would be the packaging or the bags  
21 that contained the organic materials.

22 THE CHAIR: Thank you. Any more  
23 questions from Nunavut Water Board? If there's no more  
24 questions, thank you, INAC and Staff.

25 MS. FILIATRAULT: Thank you, Mr. Chairman.  
26 Just to point out that AEM needs to clarify some of the

1 recommendations before we -- before you let INAC be  
2 dismissed, thank you.

3 THE CHAIR: Okay, thank you, Staff.  
4 Applicant?

5 AEM CLARIFICATION RE: RECOMMENDATIONS:

6 MR. CONNELL: Thank you, Mr. Chairman.  
7 It's Larry Connell.

8 I just want to go back and add some -- quite a bit  
9 of information actually or clarity to what we've heard  
10 over this issue, and what we've actually said.

11 Originally in our application submission, we had a  
12 cover thickness of 2 metres. That was not an assumption  
13 that came from the modelling; that was the outcome of  
14 the modelling. That's what the model told us that the  
15 capping layer should be. So I think that that should be  
16 clarified.

17 The other thing we've heard is that the average  
18 active layer at the Meadowbank site as we've measured it  
19 is 2.15 metres. That too isn't quite true. Those are  
20 for boreholes in close proximity to the talik zone.  
21 They aren't for boreholes throughout the site.

22 Having said that, in our submission, in our  
23 recommendation of what the security should be to the  
24 Board, the 26.1 million, that is based on 4 metres.  
25 That is INAC's number at the end of the five-year  
26 period. We've -- in order to move this along and to

1 accept that, we said, It is time we just take the 26.1  
2 million, which is the 4 metre, and that's what we've  
3 included in that estimate that we've -- under the  
4 recommendation we made to the Board. So we moved from  
5 our original 2 metre, and under the argument that we  
6 would produce that data during the first five-year  
7 license term.

8 Yesterday, we heard a lot of questioning from the  
9 Board Staff over this, especially from Stephen, was  
10 looking for some clarity on information with regards to  
11 capping layer. And I think there is information out  
12 there that should be provided to them that helps us to  
13 provide some additional information. This capping of  
14 tailings and waste rock is not new in the north. It's  
15 not unique. We're not proposing something that has not  
16 been done in the past. It has been done here in the  
17 north, and there is some record of that work that we can  
18 look to.

19 The active layer, the depth of an active layer is  
20 actually dependent upon the material characteristics  
21 including the grain size and the moisture content, and  
22 we've heard that through INAC as well, and that's quite  
23 true. The measured depths of the active layer for the  
24 Ekati waste rock dumps, they're reported to be in the  
25 order of 5 metres. That active layer thickness at Ekati  
26 hasn't yet stabilized, and the ground temperatures there

1 are continuing to get colder with time. That's from the  
2 same report that INAC provided to all of us to look  
3 through.

4 The data from Meadowbank, the area there indicates  
5 that we are in a different climate setting to Ekati, and  
6 we do have shallower active layers, and there's data  
7 available from other sources to support that. And just  
8 one of these sources of data that I'd like to put  
9 forward is the Circumpolar Active Layer Monitoring  
10 Program -- it's acronym is CALM -- and it has measured  
11 active layers in Baker Lake since 1997 in this region.  
12 They have been measuring the active layer, and the 2004  
13 annual thaw depth was 1.79 metres. And I'd like to put  
14 forward for submission to the Board a document that  
15 lists where this information came from.

16 The Board has indicated in its previous ruling to us  
17 that we should actively engage prior to the hearings  
18 with other parties trying to resolve these issues, and  
19 we have done that on this issue. And so this  
20 information I'm putting forward was actually supplied to  
21 INAC and to the Kivalliq Inuit Association leading up to  
22 this hearing. It's not new information to them, but it  
23 was information that was never put on the record because  
24 it was done in between the final interventions, and so  
25 it would have been new evidence. We would like to ask  
26 if this could be now put on the record so that some of

1 this data is actually available to Board Staff and to  
2 the Board.

3 Another spot where we could reference people to look  
4 at for what evidence or what factual information is out  
5 there that we can look to, the Government of Canada  
6 through NRCan through the MEND Program has actually put  
7 out a report. It's entitled "Covers for Reactive  
8 Tailings Located in Permafrost Regions Review", and it's  
9 MEND Report 1.61-4, and it's dated in October 2004.

10 There are four recent case histories in that report  
11 that look at test pads constructed over reactive  
12 tailings in continuous permafrost, and they provide  
13 information on parameters that govern the design of a  
14 cover to maintain the tailings in a frozen state. The  
15 case histories are from Nanisivik, from the Raglan mine  
16 in Nunavik, from the Lupin mine, and from the Rankin  
17 Inlet mine, the old Rankin Inlet nickel mine. They  
18 represent different tailings operation, different cover  
19 designs, and different approaches and different physical  
20 and climate conditions.

21 Now, just to summarize, but I think this report's  
22 worth people referencing, at Raglan, for example, there  
23 was a 1.2 metre layer of mine rock underlain by 1.2  
24 metres of crushed sand and gravel esker, and the  
25 measured active layer there was 1.9 metres.

26 At Nanisivik, there were five test pads 2 metres

1 thick covered with various stratigraphies. The active  
2 layer varied depending on the moisture content, from 1  
3 metre at 34 percent moisture to 1.5 metres at 7 percent  
4 moisture; that's the active layer.

5 At Lupin, it was 0.6 to 1.6 metres cover of sand and  
6 gravel esker material with an active layer of function  
7 of location of the groundwater surface. The 1.3 metres  
8 for no cover and fully saturated tailings to 1.8 metres  
9 when the groundwater surface with the base of the cover,  
10 that was the active layer experienced there.

11 At Rankin Inlet there was 1 metre of cover sand and  
12 gravel esker material over an oxidizing sulphate  
13 tailings. 0 degrees, the thaw -- at 0 degrees, the thaw  
14 depth was estimated at 2.7 metres. So we do have a  
15 variance.

16 Our commitment or what we said to the Board was we  
17 understood that this was an issue, was going to be an  
18 issue, and so we proposed a cautious approach; that is  
19 that we bond for the INAC-proposed 4 metre during this  
20 first license term, that we use the INAC estimates at  
21 the end of year five of the operation, and that we  
22 establish fuel tests to demonstrate the performance of  
23 various cover thicknesses under actual conditions. We  
24 can set up these test plots as soon as we get into  
25 operation. We don't have to wait for tailings so that  
26 we can get the maximum data for this next license

1 period.

2 In our submission, we had already talked about  
3 instrumentation that we are going to be putting into  
4 place to monitor depth of thaw. For example, we have  
5 instrumentation going into the dikes, and that's  
6 outlined within our submission or within the materials  
7 as part of the water license. That will give us  
8 information that we can use very early in the life of  
9 the mine to calibrate against the thermal modelling that  
10 we've already done for this cover.

11 So, in essence, I believe that there is a lot of  
12 information out there to work from on a cover. At the  
13 end of the day, our commitment is to close out the  
14 tailings in the PAG rock in a manner where the active  
15 thaw layer does not reach the underlying tailings or PAG  
16 rock. We believe that final depth of this cover should  
17 be determined after the -- from the development of data  
18 in the field and not something that the Board should  
19 have to prescribe through a license condition.

20 We support the recommendation that INAC's put  
21 forward. We think that is a solid approach, and it  
22 actually coincides with what we were putting in front of  
23 the Board. Thank you, Mr. Chair.

24 THE CHAIR: Thank you.

25 PROCEDURAL MATTERS:

26 MS. EMRICK: I think I heard a proposal



1 to add two new exhibits, is that correct, one or two?  
2 MR. CONNELL: One submission, this report  
3 which is entitled "INAC Review by Brodie Consulting  
4 Limited on Meadowbank Reclamation Cost Estimate,  
5 Meadowbank Gold Project, Nunavut". It's a technical  
6 memorandum from Golder, dated April 2nd, 2008.  
7 MS. EMRICK: So, Mr. Chair, I would  
8 suggest we just check to see if there's any objections  
9 to adding that as an exhibit, and then we can proceed  
10 with doing that now.  
11 THE CHAIR: Thank you. Any objection to  
12 it?  
13 MR. NADLER: No objections, Mr. Chair.  
14 Michael Nadler.  
15 THE CHAIR: Thank you.  
16 MS. EMRICK: Are there any objections  
17 from any of the other parties?  
18 MR. MANZO: No objections from NTI.  
19 MS. EMRICK: I think, hearing no  
20 objections, then we would add that as an exhibit, and  
21 could we also have it filed electronically?  
22 MR. CONNELL: Yes.  
23 MS. EMRICK: Okay, so that will be --  
24 which exhibit numbers are we at? So the hard copy will  
25 be added as Exhibit 8 and the electronic copy as Exhibit  
26 9. Thank you.

1 EXHIBIT NO. 8:  
2 HARD COPY OF A REPORT ENTITLED "INAC REVIEW BY  
3 BRODIE CONSULTING LIMITED ON MEADOWBANK  
4 RECLAMATION COST ESTIMATE, MEADOWBANK GOLD  
5 PROJECT, NUNAVUT", TECHNICAL MEMORANDUM FROM  
6 GOLDER, DATED APRIL 2, 2008.  
7 EXHIBIT NO. 9:  
8 ELECTRONIC COPY OF A REPORT ENTITLED "INAC  
9 REVIEW BY BRODIE CONSULTING LIMITED ON  
10 MEADOWBANK RECLAMATION COST ESTIMATE, MEADOWBANK  
11 GOLD PROJECT, NUNAVUT", TECHNICAL MEMORANDUM  
12 FROM GOLDER, DATED APRIL 2, 2008.  
13 THE CHAIR: Okay, thank you. Where do  
14 we move from here now? Okay, thank you, INAC, for your  
15 presentation.  
16 MR. NADLER: Thank you, Mr. Chair. Thank  
17 you, everyone.  
18 PRESENTATION BY EC:  
19 THE CHAIR: Okay, continue on. The next  
20 interveners will be Environment Canada. Can we have  
21 them sworn in or affirmed.  
22 GLENN GROSKOPF, ANNE WILSON,  
23 sworn:  
24 THE CHAIR: Thank you. Please go ahead,  
25 Environment Canada.  
26 MS. WILSON: Thank you, Mr. Chairman.

1 Good morning, Chairman and Members of the Board. My  
2 name is Anne Wilson. I work with Environment Canada as  
3 a Water Pollution Specialist. With me today is Glenn  
4 Groskopf, who is a Mining Specialist also with  
5 Environment Canada.

6 I would also like to acknowledge other folks of EC  
7 who helped with the submission. Ivy Stone worked on  
8 abandonment and reclamation; Wade Romanko on  
9 emergencies; and Dave Fox on incineration.

10 To give you an overview of the presentation ahead,  
11 I'm just going to have one slide on our mandate, then  
12 we'll go into the water quality and groundwater issues.  
13 I'll turn it over to Glenn next for tailings and waste  
14 rock management, and I'll discuss some waste management,  
15 emergencies, and closure and reclamation issues.

16 The next slide, please.

17 With respect to our mandate and role, the primary  
18 relevant legislation and standards that EC either  
19 administers or adheres to which influence this  
20 presentation include Section 36(3) of the Fisheries Act,  
21 and those are the pollution prevention provisions, also  
22 the Metal Mining Effluent Regulations, the Canadian  
23 Environmental Protection Act, and two sets of  
24 Canada-wide standards for mercury emissions and for  
25 dioxins and furans.

26 The water quality issues that I'm going to cover

1 today include lake dewatering, the aquatic monitoring  
2 programs, setting effluent quality criteria, the water  
3 quality predictions that AEM has made, water quality in  
4 the pit lakes, and a slide on groundwater monitoring.

5 To go to lake dewatering, AEM has two main areas  
6 that they're going to be drawing down the natural lakes  
7 to make room for their attenuation ponds and to manage  
8 water. When they're doing this dewatering, the amounts  
9 they can discharge will have to be controlled by the  
10 amount of sediments in the waters in order to protect  
11 the waters that they're being discharged to. EC had  
12 some specific comments on the monitoring and various  
13 ways to regulate it.

14 We recommend the -- okay, to start with, we support  
15 the approach outlined by AEM in their dike construction  
16 and dewatering management plan. We had recommended the  
17 use of discrete samples, and AEM has clarified that the  
18 values they use to judge whether water is having an  
19 effect or not in the environment is the maximum in a  
20 profile, so they are using discrete samples.

21 It's also been clarified for me that the use of a  
22 6-day average for TSS isn't necessary. They are using  
23 for their monthly averages all of the days in the  
24 30-day, so 7 days was fine as they proposed. I had  
25 misread that.

26 We would also recommend submission of a dewatering

1 plan as a condition of the water license. This would  
2 just be a simple plan that states what they're going to do,  
3 when, and their thresholds. They've got a lot of that  
4 in their current plan.

5 The next slide is to do with their water quality  
6 monitoring programs. There is a lot of monitoring that  
7 has to go on at this site: They've got the SNP  
8 monitoring or their compliance monitoring, which is  
9 internal to the project; there's the receiving  
10 environment monitoring also known as aquatic effects  
11 monitoring or management planning; and then under the  
12 Metal Mining Effluent Regulations, there's the  
13 environmental effects or EEM monitoring programs. We  
14 would also like to see ongoing groundwater monitoring.  
15 This is an important aspect for water management and  
16 closure planning. Oh, and one I haven't mentioned on my  
17 slide is the DFO Fisheries authorization monitoring.

18 So how are all of these going to be harmonized?  
19 Well, there are a few differences between the types of  
20 programs, and one of the reasons we want to have the  
21 Aquatic Effects Management Plan in addition to the EEM  
22 is there are tiny issues with the EEM. The reporting  
23 time lines are a little bit long for good management  
24 action in the EEM. The AEMP would have annual reporting  
25 and be used more immediately for their adaptive  
26 management, so they'll see right away if something is

1 going in a direction it shouldn't and be able to take  
2 the right action.

3 The AEMP would also presumably include some way to  
4 measure if we're seeing more productivity in the lake,  
5 which means right now the lakes don't have a lot of fish  
6 or a lot of algae or phyto -- or zooplankton, but is the  
7 mine adding nutrients that are making the lakes be more  
8 productive. That isn't normally included under an EEM,  
9 so we're looking for a comprehensive program that gives  
10 the EEM components, which are required by law, and  
11 supports them with the EEM information.

12 The Proponent has done a good job of giving us a  
13 framework for this, and I was able to read their 2006  
14 and 2007 reports last night briefly, very quickly, and  
15 they have covered pretty much what we would hope they  
16 would. There are a few minor details that we would like  
17 to see addressed or updated or changed. And I think  
18 that once the water license is issued, it's important to  
19 have all this monitoring formalized in a consolidated  
20 plan and further construction phase sampling and  
21 analysis plans provided beyond the first one that we've  
22 got now for the construction of dikes and dewatering.

23 As far as the timing, there was a bit of discussion  
24 yesterday with INAC's presentation, and thinking about  
25 the timing issue as far as having the first update done  
26 in March 31st, '09, I think this should be developed

1 somewhat in collaboration with the departments working  
2 with water. And the proposed '08 monitoring should --  
3 it would be very good to have some feedback on that to  
4 the Proponent. I don't exactly know what form that  
5 would take because it has to happen pretty quickly  
6 before they set up for this upcoming field season, which  
7 is really only a few months away.

8 Some examples on that would be just for the '08  
9 monitoring, that we would like to see sediment  
10 variability better characterized. They have been using  
11 samples that are all mixed together so that you don't  
12 have individual samples at their stations, which would  
13 show the range of variability, so I think a little  
14 further work on the individual samples would be good.  
15 And we don't have a sense of winter water quality. I  
16 think that would be something they should get before the  
17 open pits start, so over -- like probably next April.

18 And there may be some other comments on the AEMP  
19 when I've had a chance to go through it properly, and  
20 I'm sure DFO and others would have a few comments. So  
21 there's a lot on monitoring for the environmental  
22 monitoring.

23 The next slide is to do with the site water quality  
24 monitoring, and we received an update in Appendix C that  
25 I had a table consolidating all the different  
26 requirements, and so we had identified a few specific

1 concerns with the parameters proposed, and the  
2 intervention has details, so I'm just going to give you  
3 a few examples of the things, rather than go through all  
4 of them.

5 For example the diffuser discharge stations, CM-4  
6 and CM-5, don't have quite a broad enough suite of  
7 analyses planned for them. I think they need to get  
8 more parameters because this is what characterizes the  
9 effluents and this is what we're going to be looking at  
10 to say, Why are we seeing whatever we're seeing in the  
11 receiving environment. And the timing of that should be  
12 in advance of discharge as well as during discharge.

13 I did want to flag a mistake I made -- the second  
14 one here, my goodness -- the tailings storage  
15 facilities, CM-8 parameters, I flagged that they should  
16 include analysis for nitrogen compounds, and I said,  
17 "but should not require cyanide compounds"; that's  
18 wrong. CM-5 should not require cyanide compounds. I  
19 just wanted to correct that on the record.

20 There's a question of the waste rock pile  
21 monitoring. They only propose to monitor dissolved  
22 metals. We would like to see totals done at least  
23 annually as well to see what the most metals available  
24 might be. I appreciate that their models did use  
25 dissolved, and their comparisons are on that basis.  
26 However, we don't have guidelines for dissolved metals,



1 and most of our comparisons are done on total metals.

2 There are closure monitoring aspects outlined in the  
3 intervention. I appreciate that those will be for the  
4 next license, but they can be planned for in the closure  
5 and reclamation plan as it's updated in this license.

6 Going on to effluent quality criteria. It's been a  
7 nice iterative process between the Proponent and  
8 stakeholders, us mainly, as far as discussions on what  
9 we should have as end-of-pipe criteria and why, and by  
10 and large, we agree on most of them. There are some  
11 things though that EC feels need to be a little more  
12 conservative.

13 Among those, I would say the main one would be that  
14 turbidity be regulated. We also feel that the chloride  
15 levels proposed are higher than we would like to see.  
16 And we would like to see, probably as a management plan  
17 rather than regulated, but there be some duration  
18 specified for surface runoff TSS so that it's -- I  
19 expect this Proponent would address any ongoing surface  
20 runoff that caused erosion, but just so that there are  
21 time frames associated with that.

22 Now, I guess I'll jump into turbidity. That's kind  
23 of the big one here, and I hope -- please stay with me,  
24 this will take a little while. First off, I want to say  
25 that, as we all know, the lakes up here are almost  
26 distilled water. They're ultra-oligotrophic, so they're

1 really, really pristine and clean, and we want to keep  
2 them that way.

3 This was the way the people who live in the  
4 Northwest Territories felt about Lac de Gras, and so  
5 when it came to the Diavik water license, turbidity was  
6 put in as a regulated parameter when it came to  
7 dewatering the areas behind their dikes, a very similar  
8 situation to this.

9 I just want to go over a little bit the difference  
10 between total suspended solids and turbidity and how  
11 they're measured, just so that that's clear. If you  
12 have some sand and you have some baby powder or talcum  
13 powder, one's kind of coarse and one's kind of fine, mix  
14 them all together, put them in a bottle of water, and  
15 shake it all up. So the fine stuff is going to float,  
16 and the heavier sand is going to sink, but we don't know  
17 how much sand we have in our water. So I've got a  
18 sponge here and I know how much my sponge weighs; if I  
19 pour my sample through my sponge and then weigh the  
20 sponge with the sample, I'll know how much of that would  
21 be the sand.

22 Basically that's a very simplified explanation of  
23 how we measure total suspended solids. They're poured  
24 through a filter. Things of a certain size stay in the  
25 filter and can be measured. The part that's turbidity  
26 that I'm concerned about is the part that goes through

1 the filter and stays in the water. The tiny clay-sized  
2 particles will float for days to weeks. They don't like  
3 to settle out; they stay suspended. When they do that,  
4 they prevent the sunlight from going through the lake  
5 water and reduce what's available for algae and -- algae  
6 that live both in the water column and in the sediments  
7 to photosynthesize. So we want to minimize that effect  
8 to the extent possible.

9 If we were going to only regulate total suspended  
10 solids, you could put a lot of turbidity out into the  
11 lake before you hit your total suspended solids limit.  
12 I pulled out a few numbers from the Diavik dike  
13 dewatering monitoring.

14 Early on when they first started dewatering, both  
15 turbidity and total suspended solids were less than 1,  
16 and they were both the same. As they got further into  
17 it, the TSS was still about twice what the turbidity was  
18 and was still under their license limits. As they got  
19 closer to the bottom of the lake sediments, the  
20 suspended fines increased until they were more than the  
21 total suspended solids. And it was actually the  
22 turbidity that was regulated and had them stop  
23 dewatering, and of course, the dewatering, they still  
24 were able to get 60 percent of the lake water out even  
25 without hitting 10 NTU's, which is the measure of  
26 turbidity. And at that time, they'd hit 7 milligrams

1 per litre of TSS.

2 So I just wanted to make the point too that while  
3 turbidity is often used as a surrogate for TSS, in the  
4 Diavik experience, they were pretty close to 1:1, but at  
5 the beginning, one was way higher than the other, and at  
6 the end, it had flipped, so it's not a real accurate way  
7 to know exactly what your TSS is. And the reason for  
8 that, of course, is that your sediments are changing.  
9 As you drawn down your lake, you get changes.

10 So enough about turbidity, probably more than  
11 enough.

12 The other aspect for license limits is the chloride  
13 that we haven't quite come to agreement on, and we note  
14 that chronic effects can be seen at levels of chloride  
15 that are about 313 milligrams per litre to 500  
16 milligrams per litre. That won't be an issue at the  
17 edge of the mixing zone. We acknowledge that the edge  
18 of the mixing zone is going to be quite low. If it was  
19 2,000 milligrams per litre as proposed, it would be 32  
20 milligrams per litre, which shouldn't be an issue.  
21 However, the predictions for chloride in the document  
22 Water Quality Predictions, I think the highest one I saw  
23 for Portage was 420 milligrams per litre, so I'm not  
24 convinced that we really need to go as high as 2,000. I  
25 know they want a margin of safety there, but I think  
26 that that might be more than what is needed.

1           I was just going to add a comment that we are okay  
2           with the higher nitrate levels that are suggested. I  
3           looked at the benthic invertebrates that live in the  
4           area and some of the zooplankton, and they would be  
5           fairly robust to that.  
6           Okay, I'm going to leave effluent quality now and go  
7           to the water quality predictions. There is still some  
8           uncertainty regarding the modelling of nitrogen  
9           compounds from the cyanide breakdown and regarding the  
10          levels of ammonia which will accumulate in the  
11          attenuation pond and reclaim pond. AEM has committed to  
12          monitor and periodically remodel these.  
13          We do support this approach, and, you know, we're  
14          going to learn as we go along what is actually  
15          happening. Modelling is our best guess. One of the  
16          things I would like to see as a license condition is an  
17          approved ammonia management plan -- and there's  
18          examples, like Diavik had to do one and other companies  
19          have them -- to ensure source control because that's  
20          really where it all starts. You want to prevent your  
21          problems.  
22          Next is pit lakes water quality. We have had some  
23          discussions on what's going to happen in the pits after  
24          closure. It's predicted that there will be a cleaner  
25          top layer of water, and the bottom layer of water will  
26          have a little more density because of the salts that

1       come up from the groundwater. The layer between them,  
2       separating is called a chemocline. So we had sought  
3       clarification of the role that groundwater inputs or  
4       discharges were going to have in this pit water quality  
5       and how stable that layer was going to be: Was it going  
6       to break down as predicted; how is that going to affect  
7       water quality at closure.

8       We did get clarification on the inputs that were  
9       used in the modelling, and those look conservative  
10      enough, but there are still questions on the  
11      stratification. I think that it's important to keep  
12      remodelling this as further groundwater data quality are  
13      available, but this can be addressed in future closure  
14      estimates -- I'm sorry, in future closure updates.

15      Just going to the groundwater monitoring. Initially  
16      in our view, we had identified some problems with the  
17      handling of groundwater data, although we did agree that  
18      data were adequate to predict the salinity and major ion  
19      concentrations in dissolved metals. What we would like  
20      to see is a stand-alone groundwater monitoring plan. I  
21      think it's important that the permanent wells be robust,  
22      be installed soon, not necessarily go back where the  
23      ones that there's been problems with were because those  
24      sites are going to be covered over anyways, and this  
25      should be planned for -- to happen as soon as possible  
26      to get that data.

1           Okay, I'm going to turn the mike over to Glenn at  
2           this point.

3           MR. GROSKOPF:                           Thank you, Anne. My name is  
4           Glenn Groskopf. I'm with Environment Canada.

5           I'll be talking on tailings and waste rock issues,  
6           and it's the management of these solid wastes from the  
7           mine that are going to be critical for the long-term  
8           impact of the development. And the specific issues that  
9           I'll address relate to, I guess, one of the fundamental  
10          underlying design components to those waste facilities,  
11          that being the effectiveness of the cover to isolate the  
12          active zone from the reactive material, the actual  
13          segregation of material to ensure that you don't have  
14          problematic rock in that cover.

15          And with that, I'll now go through the slides. The  
16          first one is on design depth on the active zone. It's  
17          been already fairly extensively discussed, and from  
18          the -- design of the cover and its thickness has already  
19          been fairly extensively discussed, and the Department, I  
20          guess, concurs with where the discussion is heading in  
21          terms of looking at that cover design and, as we get  
22          real data, being able to put that into the model and  
23          confirm what the thickness would be for the long-term  
24          protection of the reactive material.

25          The next one, the next slide relates to contingency  
26          planning for the waste rock piles, and that relates to

1 the fact that should, in the course of evaluation, there  
2 be found either to be substantially more problematic  
3 rock to deal with or that the cover design requires  
4 significant modification, that there should be always a  
5 contingency that can be undertaken to ensure that the  
6 site is -- can be decommissioned safely. For example,  
7 such actions to be a commitment that, failing the  
8 proposal, waste rock could be relocated into one of the  
9 pits or cover material otherwise augmented to ensure  
10 that the material is not going to degrade and affect the  
11 environment in the long term.

12 Till characterization, this relates to a comment  
13 that some of the material, and it's about 10 percent of  
14 the till, is probably acid rock, may be problematic and  
15 in generating drainages that could affect the water  
16 quality, and we just wanted to underscore the importance  
17 of ensuring that none of that material gets  
18 inadvertently incorporated into any of the structures  
19 where it would affect water quality.

20 And lastly, site rock -- mine rock segregation. As  
21 I indicated earlier, segregation of the material to  
22 ensure that it's properly disposed of is key and  
23 fundamental to handling of solid waste at this mine.  
24 It's been stated that the segregation of the rock would  
25 be on the basis of sulphur content, as well as I believe  
26 the document suggests that total metal content may be



1 required as another means to address metal leaching.  
2 The company is committed to updating and adapting  
3 its plans as it advances and as additional data is  
4 obtained, and we're certainly in agreement that is a  
5 good approach to take. However, we suggest that really  
6 you should have a segregation plan in mind, and if you  
7 don't have sufficient data, you should be quite  
8 conservative initially, and as you get greater  
9 confidence, you're able to reduce that, particularly  
10 given that many of these materials are going to be  
11 incorporated into long-term structures where the removal  
12 may be more difficult.

13 And I guess related to that is once you have a  
14 segregation system, I think one of the other key  
15 components is routinely audited to ensure that it is  
16 working as expected. Rock units aren't always  
17 necessarily as homogeneous as first anticipated, and  
18 though certainly it's not exceptional to have rock units  
19 even within a drill core varying quite considerably in  
20 terms of their environmental character, certainly when  
21 you go then to try to extract information to a whole  
22 mining block, it can be more challenging. And through  
23 auditing, you can confirm that your rule that you're  
24 using for segregating is working and that, as you get  
25 greater confidence, you can then have greater time  
26 between those audits as you're within the same rock

1 units.

2 And that, I guess, concludes my part of the  
3 presentation. Thank you.

4 MS. WILSON: Okay, so I'm going to switch  
5 gears now -- it's Anne Wilson again -- to waste  
6 management. Just a couple of topics here. We're going  
7 to look at the incineration, compliance with the  
8 Canada-wide standards in connection with that, and  
9 landfarm operations.

10 Okay, I'll start out by saying we appreciate AEM's  
11 cooperative approach to implementing the best technology  
12 for incineration, and we looked at the incinerator specs  
13 yesterday, and there's further work being done based on  
14 that. Their plans are to incinerate used petroleum  
15 products, food waste, and sewage treatment sludge until  
16 it can go to the tailings facility. And they are  
17 looking at getting a dual chamber, high temperature  
18 incinerator and ensuring that it has enough capacity for  
19 the camp including redundancy. They have committed to  
20 stack testing to ensure that there is compliance with  
21 the Canada-wide standards, and they initially had stated  
22 that incinerator ash will be disposed of by spreading  
23 within the landfill following some testing for  
24 compliance with environmental guidelines that the GN  
25 has.

26 So EC would like to see the incinerator -- or

1 incineration management plan as one of the license  
2 conditions, as there are other waste management plans,  
3 and we would like to see best practices for ash  
4 disposal, that it be encapsulated if need be and that it  
5 be tested regularly enough to be sure that there's  
6 nothing that's going to generate a harmful leachate from  
7 the landfill from it.

8 Looking at landfarming of contaminated materials,  
9 this is an easy slide because AEM has satisfactorily  
10 addressed the concerns we raised for the pre-hearing  
11 meetings that were identified with the landfarm  
12 operations, and we just note that these should be  
13 documented as either addenda or in the commitments list  
14 that comes forward from this hearing.

15 Similarly, the concerns we had raised with respect  
16 to the plans for hazardous material management and spill  
17 contingency planning were addressed, and again, this  
18 concurrence should be just noted for the record in the  
19 form of either commitments or the Proponent putting out  
20 addenda to the plans with those updates.

21 There are a few closure and reclamation points.  
22 These include removal of the dewatering dikes,  
23 post-closure monitoring, closure of the treatment plant  
24 facilities, and progressive closure of the rock storage  
25 facilities.

26 With respect to the dewatering dikes, AEM has

1 committed that there will be appropriate mitigation  
2 measures identified and implemented prior to breaching  
3 of the dikes and that these are to be detailed in the  
4 plan which would be submitted to the Nunavut Water Board  
5 ahead of the work. This may be for a future license  
6 beyond this one, but the closure planning should include  
7 conceptual plans for this, and we would like to see  
8 detailed information regarding the method to be used to  
9 remove or breach the dewatering dikes at least 18 months  
10 prior to commencing this work. Along with details of  
11 the chosen method, there should be mitigation measures  
12 discussed.

13 With respect to post-closure monitoring, the  
14 Proponent advised this is being developed as part of an  
15 operation, maintenance, and surveillance manual, and  
16 this manual will incorporate the recommendations we had  
17 made at the pre-hearing technical meetings. So we look  
18 forward to the opportunity to see this manual and  
19 suggest that it be updated periodically and circulated  
20 for review.

21 Another one of the points we raised in our  
22 pre-hearing submission was if there is a treatment plant  
23 required for treatment of the reclaimed pond water, this  
24 would be a retrofitted mill treatment system. We feel  
25 that this probably will be required, not that we're  
26 pessimistic, but details on the closure of such a

1 facility could be provided on a general basis in updates  
2 to the closure plan. For example, if the mill is  
3 modified to include a treatment circuit at closure, how  
4 would this affect timing and details of its  
5 decommissioning? Our recommendation is that details on  
6 any such facility be included in future updates to the  
7 closure and reclamation plan.

8 And my last slide on this section, AEM has committed  
9 that a detailed monitoring and instrumentation plan will  
10 be prepared and submitted to the Nunavut Water Board for  
11 review once a final waste rock deposition plan has been  
12 developed, and this is in respect of progressive closure  
13 of the rock storage facilities. So EC would like to see  
14 such a plan as a license requirement and have results  
15 linked to closure planning.

16 I'm just going to turn the mike over to Glenn for a  
17 moment before our concluding slide.

18 MR. GROSKOPF: Thank you, Anne. It's Glenn  
19 Groskopf with Environment Canada.

20 I just wanted to mention that in other jurisdictions  
21 and mine properties where I have been involved with,  
22 they undertake what they called state of the environment  
23 reporting or roll-up reporting. There the monitoring  
24 results are compared to what was actually predicted in  
25 the EIS's and observations of the differences are  
26 explained. It's often a useful tool to see that and to

1 demonstrate that procedures and designs are working  
2 properly and that there is this continuous improvement  
3 and adaptive management is being enacted.  
4 And such reports are often on a longer-term basis in  
5 that they represent three- or five-year frequencies, and  
6 they often don't -- necessarily themselves are new work,  
7 but they summarize all the work that's been done over  
8 the years to demonstrate trends, as well as identifying  
9 information gaps for the next sequence of licensing that  
10 the facility may go under.  
11 I just want to take the opportunity to suggest that  
12 perhaps that might be a method employed here in which  
13 we've got a program that will be -- probably being  
14 modified during the life of the mine. Thank you.  
15 MS. WILSON: Okay, so to our conclusion.  
16 EC would like to thank the Nunavut Water Board very much  
17 for the opportunity to participate in this water license  
18 process for the Meadowbank Gold Project, and we've also  
19 appreciated it's been an easy file to work on because of  
20 the interactive and cooperative approach the Proponent  
21 has to help resolve concerns ahead of this hearing.  
22 So with that, we are available, Mr. Chair, for any  
23 questions.  
24 THE CHAIR: Thank you. Okay, does the  
25 Applicant, AEM, have question or comments?  
26 AEM QUESTIONS EC:

1 MR. CONNELL: Thank you, Mr. Chairman.  
2 It's Larry Connell. We do have a couple of questions  
3 for clarification.  
4 In the presentation, we talked about the  
5 consolidated monitoring plan. Do you see this as an  
6 additional plan or really just a combination of plans?  
7 We have -- as you know, we have tons of plans out there.  
8 My worry is that we always get too many, and nobody  
9 reads them after a while. Are we talking about a  
10 brand-new plan, or are we talking about something that  
11 brings them together into like a checklist to make sure  
12 that over a period of time, we make sure that all the  
13 things we've committed to monitor are being done?  
14 MS. WILSON: Mr. Chair, it's Anne Wilson.  
15 I think you are substantially there in the framework  
16 that you've got between the 2005 work and then the  
17 reports.  
18 What needs to be brought together is the EEM work,  
19 that's a separate document, just so that the -- perhaps  
20 a table showing which parameters are being monitored and  
21 under what -- for which program so there's no  
22 duplication, but we ensure that everything is caught for  
23 basically the four types of monitoring, being SNP, AEMP,  
24 EEM, and Fisheries Act monitoring. Does that make  
25 sense?  
26 THE CHAIR: Thank you. Applicant?

1 MR. CONNELL: Thank you, Mr. Chairman.  
2 I'm going to ask Valerie Bertrand to ask some  
3 questions with water quality.  
4 THE CHAIR: Go ahead.  
5 MS. BERTRAND: Thank you, Mr. Chair. This  
6 is Valerie Bertrand.  
7 I would like to offer clarifications to two points  
8 over -- regarding overburden that is potentially  
9 acid-generating first.  
10 It is planned that the overburden will be used in  
11 the central portion of the dike. I would -- we had not  
12 planned on testing it, because, in fact, if we did use  
13 material that was potentially acid-generating, it would  
14 be the perfect place for it where it is protected in the  
15 center of the dike.  
16 So it is the position here that we would actually  
17 use this material specifically for -- or we would use  
18 this material for the dike, not necessarily needing to  
19 test it beforehand, but certainly we would not use  
20 material that would be potentially acid-generating for  
21 other construction purposes.  
22 MR. GROSKOPF: Glenn Groskopf, Environment  
23 Canada.  
24 If I understand -- I'm not sure there was a question  
25 there, I guess. The use of it in the core of the dam in  
26 which it's permanently wedded and there's no oxidation



1 of it, that would be, I think, an acceptable means to  
2 control that problematic waste. Used for road topping  
3 or as a -- put aside for future reclamation may be more  
4 problematic, and so I guess, if I understand your  
5 question, the use in a controlled manner in the core is  
6 fine; otherwise, you'd have to be very mindful of how  
7 you handle it. Is all the overburden going to be  
8 consumed by the core?

9 THE CHAIR: Thank you. Applicant?  
10 MS. BERTRAND: Thank you, Mr. Chair.  
11 Valerie.

12 I believe not all the overburden will be used in the  
13 core.

14 THE CHAIR: Environment Canada, go  
15 ahead.

16 MR. GROSKOPF: Thank you. Glenn Groskopf,  
17 Environment Canada.

18 I guess just then whatever that remainder of  
19 material is, I'm just -- I'm wanting to be mindful that  
20 you understand it's a quality. Sorry, did you need me  
21 to repeat that, Chair?

22 THE CHAIR: Applicant, go ahead.

23 MS. BERTRAND: Could you please repeat, I  
24 didn't hear that?

25 MR. GROSKOPF: Sorry. I was just saying  
26 that the remainder of material that's not securely

1 disposed in the core, it would just have to be --  
2 understand what its quality is so that you handle it  
3 properly.  
4 THE CHAIR: Thank you. Applicant?  
5 MS. BERTRAND: This is Valerie.  
6 Yes, we would test that material.  
7 THE CHAIR: Thank you. Any more  
8 question from Applicant? Go ahead.  
9 MS. BERTRAND: Thank you. This is Valerie  
10 Bertrand, Mr. Chair.  
11 Yes, one other clarification. With respect to  
12 chloride levels, Anne Wilson was wondering -- was saying  
13 that the highest value that she saw was 400 milligrams  
14 per litre chloride and was seeking clarification why  
15 such a high value that we're proposing, 2,000 milligrams  
16 per litre.  
17 The reason for it is because, in fact, most of the  
18 chloride is expected to come from groundwater that  
19 accumulates into the pits, and the groundwater is  
20 expected towards the end of mine life to reach levels  
21 that are approximated to be about 600 milligrams per  
22 litre.  
23 Considering that the overall water balance at that  
24 time in mine life, it is expected, predicted that the  
25 inflow into the attenuation pond will be about -- made  
26 up of about a bit more than 50 percent of pit

1 groundwater, so if there is more flow -- if predictions  
2 are off a bit, and there is more flow and it comes from  
3 a bit deeper or it is also saline, we would like to have  
4 2,000 milligrams per litre effluent so that we can  
5 accommodate for variations in pit -- or groundwater  
6 quality produced by increased flow into the pits.  
7 THE CHAIR: Thank you. Environment  
8 Canada?  
9 MS. WILSON: Thank you, Mr. Chair.  
10 I understand. It just seems that a three-fold plus  
11 allowance is a little bit generous, and I'm wondering if  
12 the Proponent would be concerned about the chronic  
13 toxicity tests because those could be -- they would  
14 probably not pass -- or they would see impacts in those  
15 for that level of chloride.  
16 THE CHAIR: Thank you. Applicant?  
17 MS. BERTRAND: This is Valerie. Thank you,  
18 Mr. Chair.  
19 Yes, there is -- part of the AEMP, there will be  
20 some toxicity testing of the effluent, so we'll be  
21 documenting this.  
22 THE CHAIR: Thank you. Environment  
23 Canada?  
24 MS. WILSON: It's Anne Wilson again.  
25 Just on a follow-up note on the chloride issue,  
26 there is a good side to it; it does reduce the toxicity

1 of nitrate and gives us a little comfort around having  
2 the nitrate levels.

3 Mr. Chairman, I omitted to comment on the ammonia  
4 levels. May I do so at this point?

5 THE CHAIR: Go ahead.

6 MS. WILSON: Thank you, Mr. Chair.

7 The Vault attenuation pond is proposed to have by  
8 the Proponent 26 milligrams per litre as their ammonia  
9 discharge limit. I note in the predictions that over  
10 the summer, it always starts high, and then it goes down  
11 considerably, and we expect that because of the  
12 breakdown due to sun, natural degradation processes, you  
13 know bacterial action.

14 I would suggest that the 26 might be high as far as  
15 passing a bioassay, and that although it is a  
16 contingency, because that was from their poor-end  
17 scenario, the worst-case predictions, that if rigorous  
18 source control is practiced and they get better numbers,  
19 there is the room, if there are spikes, to hold the  
20 effluent for a couple of -- you know, a number of weeks  
21 until the natural process is treated.

22 I have a problem with raising limits just because  
23 they're hard to meet, and I really think that we want to  
24 be as protective as possible, and that although we have  
25 some dilution in the receiving environment, we still  
26 have to worry about passing the bioassay test. So if

1 the Proponent has any comments on that, I would be  
2 interested.  
3 THE CHAIR: Thank you. Any more from  
4 Applicant?  
5 MS. BERTRAND: This is Valerie Bertrand.  
6 I don't have a comment on that. I agree that we'll  
7 be bound anyway by the toxicity assay at the end.  
8 I would like to clarify one aspect, however, that  
9 reason for the spike in ammonia in the spring is because  
10 of the increase in flow of water associated with  
11 explosives, water that comes from the pit and water that  
12 comes from the waste rock pile, and we didn't account  
13 for degradation of ammonia with the sun in the model,  
14 but it will -- effectively, it will -- the sun will  
15 possibly decrease these levels and temperature.  
16 THE CHAIR: Thank you. Environment  
17 Canada? No, okay. Any more questions from Applicant?  
18 MR. CONNELL: Thank you, Mr. Chairman. No  
19 no more questions. Oh, sorry, Valerie Bertrand has one  
20 more.  
21 THE CHAIR: Okay, go ahead.  
22 MS. BERTRAND: This is Valerie Bertrand.  
23 One clarification, a last clarification is for total  
24 metals. There's a -- to add total metals to the list of  
25 parameters that are going to be analyzed from internal  
26 monitoring points.

1           Internal monitoring points are areas within the  
2           footprint of the mine, areas that we monitor before it  
3           reaches the final pond from which water will be  
4           discharged. So per se, we're not -- there's no  
5           regulation that applies to these specific points. It's  
6           just for Agnico-Eagle's ability to understand what's  
7           happening at each individual point so that, if  
8           necessary, source control can be applied.

9           Now, the way -- the reason why we don't feel that --  
10          I wanted to clarify the reason why we don't feel that  
11          total metals is a useful parameter in this case is that  
12          total -- we will be analyzing for dissolved metals to be  
13          able to compare with predictions. We -- the predictions  
14          don't consider total metals. Totals will be necessarily  
15          higher than dissolved metals. They -- that's because  
16          it's -- a portion of the metals come from the suspended  
17          solids.

18          Were we to monitor total metals in the internal  
19          monitoring points, it would not provide much information  
20          as to what's going to be the total metals in the pond  
21          itself because we'll be -- there's going to be some  
22          sediment separation most likely between the different  
23          areas until it reaches the attenuation pond. So that's  
24          why we're saying that it's not so useful to measure  
25          total metals. However, annual perhaps -- if we were to  
26          monitor it on a decreased frequency, perhaps once per

1 year, maybe that would be okay.  
2 THE CHAIR: Thank you. Environment  
3 Canada?  
4 MS. WILSON: Thank you, Mr. Chairman.  
5 Anne Wilson, Environment Canada.  
6 I think that once per year would be helpful. And  
7 the reason I'd like to see the total metals done is that  
8 they don't always stay in the total form, because they  
9 can be on the surface of particles, but then when the  
10 water runs off, maybe it runs into more acidic bog  
11 water, and it liberates the metals that are on the  
12 particles, so that it's good to have an idea of what the  
13 most available might be. I agree that the dissolved  
14 ones are useful for their models, and they're also  
15 what's available right now for the biota, but to be able  
16 to have a grasp of what's really available, you should  
17 have totals once a year or so would be good. Thanks.  
18 THE CHAIR: Thank you. Applicant?  
19 MR. CONNELL: Thank you, Mr. Chairman.  
20 That finishes our questions. Thank you.  
21 THE CHAIR: Okay. Any more from  
22 Applicant?  
23 MR. CONNELL: No.  
24 THE CHAIR: Okay, another party? Does  
25 INAC have question or comments?  
26 MR. NADLER: No, Mr. Chair.

1 THE CHAIR: There's a microphone.  
2 MR. NADLER: No questions or comments  
3 from INAC, Mr. Chair. Michael Nadler.  
4 THE CHAIR: Thank you. How about DFO;  
5 do they have a comment?  
6 MR. BALINT: Dave Balint with Fisheries.  
7 We have no questions or comments.  
8 THE CHAIR: Thank you. Does GN-DOE have  
9 any questions or comments?  
10 MR. BADDALOO: Earle Baddaloo, GN. No,  
11 Mr. Chair, we don't have any questions or comments,  
12 thanks.  
13 THE CHAIR: Thank you. Does NTI have  
14 any questions or comments?  
15 MS. EHALOAK: Jeannie Ehaloak. No  
16 questions at this time.  
17 THE CHAIR: Thank you. Does KIA have  
18 any questions or comments?  
19 MR. MANZO: Luis Manzo. No questions or  
20 comments from KIA.  
21 THE CHAIR: Thank you. Is there any  
22 comments from public, question or comments? Yes, go  
23 ahead.  
24 PUBLIC QUESTIONS EC:  
25 MS. PUTULIK: Good morning, Brenda Putulik  
26 from Chesterfield. My question is movements with the



1 barge and ships on sea and lake, is it being overlooked  
2 in regards to transporting fuel, material in other --  
3 materials that might be hazardous to the lake or sea?  
4 Quyanamiik.  
5 THE CHAIR: Quyanamiik. Environment  
6 Canada?  
7 MS. WILSON: Thank you. It's Anne  
8 Wilson. That's a good question.  
9 That would fall under the spill contingency and  
10 emergencies planning, and we review those as plans  
11 required under the water license.  
12 THE CHAIR: Thank you. Is there any  
13 more question from public? So I take that there's no  
14 more. Is there any question from Staff?  
15 NWB STAFF QUESTION EC:  
16 MR. HOHNSTEIN: Thank you, Mr. Chair. Dave  
17 Hohnstein. Yes, we do have a few questions, and I'll  
18 turn it over to Karlette.  
19 THE CHAIR: Thank you. Karlette, go  
20 ahead.  
21 MS. TUNALEY: Thank you, Mr. Chair.  
22 Karlette Tunaley speaking.  
23 I just have one question. In follow-up to the  
24 discussion between Anne and Valerie on the monitoring of  
25 total metals versus dissolved metals, I think you agreed  
26 that maybe once per year monitoring of total metals

1 might be appropriate. I'm just wondering what time of  
2 year that would be most appropriate.  
3 THE CHAIR: Thank you. Environment  
4 Canada?  
5 MS. WILSON: It's Anne Wilson.  
6 This is for the waste rock pile monitoring. Given  
7 the experience of other mines, and the time you see the  
8 runoff is usually in the spring, and that's after  
9 freshet, so I would say probably in mid to late July  
10 after the melt has happened. I'm not entirely sure of  
11 the timing each year of that, but where you've had the  
12 first flush of water through the rock materials.  
13 THE CHAIR: Thank you. Karlette?  
14 MS. TUNALEY: Thank you, Mr. Chair.  
15 That's all my questions.  
16 THE CHAIR: Is there any more from  
17 Staff? Thank you. Is there any question or comment  
18 from Board Members? Bob Hanson, do you have any  
19 comments or question?  
20 MR. HANSON: Bob Hanson here. No,  
21 Mr. Chairman, thank you very much. And don't forget,  
22 Bill Tilleman is on the line too by the way.  
23 THE CHAIR: Thank you for reminding me,  
24 yes. I'm sorry, Bill, I haven't mentioned your name  
25 this morning.  
26 MR. TILLEMAN: Oh, that's fine, no problem.

1 THE CHAIR: Okay, good. Questions from  
2 the Members? There's no questions from the Members.  
3 Thank you for your presentation.  
4 We have housekeeping at the moment. Thank you,  
5 Environment Canada, thank you.  
6 SUPPLEMENTARY MATTERS:  
7 MS. FILIATRAULT: Thank you, Mr. Chairman.  
8 Dionne Filiatrault.  
9 This morning we've kind of pushed through past  
10 coffee because we are -- the Board Member that is  
11 participating via teleconference is unavailable from  
12 10:45 until about 12:00 our time I believe is -- is that  
13 correct, Bob?  
14 MR. HANSON: Bob Hanson. Dionne, it was  
15 from about 10 minutes from now until 1:00 my time, which  
16 is 12:00 your time.  
17 MS. FILIATRAULT: So, Mr. Chairman, I don't  
18 believe that the next presentation is -- it's going to  
19 take more than 10 minutes. The reason I'm mentioning  
20 this is because with Mr. Hanson on the phone, the Board  
21 only has quorum, and with him having to step away, the  
22 Board no longer has a quorum.  
23 So that being the case, the Board is going to have  
24 to, Mr. Chairman, consider an adjournment until probably  
25 12:30 to allow people to have lunch and reconvene a  
26 little bit earlier, at 12:30 rather than 1:00 or

1 something, but that's up to you, Mr. Chairman.  
2 THE CHAIR: Yes, we can take that. So  
3 at the time of -- there's only 5 minutes left anyway.  
4 Maybe we can take a break now until 12:30. We'll come  
5 back at 12:30 in this room. Thank you.  
6 (PROCEEDINGS ADJOURNED AT 10:36 A.M.)  
7 (PROCEEDINGS RESUMED AT 12:40 P.M.)  
8 THE CHAIR: We will resume again. Thank  
9 you for coming. Bob, are you on the line?  
10 MR. HANSON: I'm here, Mr. Chairman, Bob  
11 here.  
12 THE CHAIR: Thank you. Bill Tilleman,  
13 are you on the line?  
14 MR. TILLEMAN: Yes, Mr. Chairman, I'm here.  
15 PRESENTATION BY DFO:  
16 THE CHAIR: Thank you. So we'll  
17 continue on for this afternoon's session. The next  
18 interveners will be DFO. Will you come to the  
19 intervention table, and Catherine will swear you in or  
20 affirm.  
21 AMY LIU, DAVID BALINT,  
22 sworn:  
23 MS. LIU: Good afternoon, Mr. Chair,  
24 Members of the Board, and the community of Baker Lake,  
25 and residents of Chesterfield Inlet. My name is Amy  
26 Liu, and I'm the Habitat Management Biologist for

1 Fisheries and Oceans in Iqaluit, and with me today is  
2 David Balint, also a Habitat Management Biologist with  
3 DFO.

4 I'd like to thank the Board for providing us an  
5 opportunity to present our intervention regarding the  
6 Meadowbank Gold Mine Project. DFO has reviewed the  
7 information provided by the Proponent, Agnico-Eagle  
8 Mines, for impacts to fish and fish habitat as it  
9 relates to our mandate under the Federal Fisheries Act  
10 and in context with our national policy for the  
11 management of fish habitat.

12 So to start, we'd like to provide an overview of the  
13 topics DFO will present today. First, we'll go over our  
14 mandate, the applicable legislation and policies, and  
15 next, we'll discuss our intervention comments, which  
16 we submitted to the Water Board.

17 For DFO's presentation, we'll give more attention to  
18 the main issues DFO would like to bring to the Board's  
19 attention, recognizing that our intervention comments  
20 provide a more complete discussion of all the issues,  
21 and after the presentation, we'll be available for  
22 questions or further clarification.

23 So through the Constitution Act, DFO has  
24 responsibility for sea coast and inland fisheries within  
25 Canada's territorial boundaries, and this includes the  
26 conservation and protection of fish and marine mammals

1 and their habitats as outlined in the Fisheries Act.

2 DFO's involvement in the Meadowbank Project is  
3 through the Fisheries Act, and the main regulatory  
4 trigger for the Meadowbank Project is Section 35, which  
5 is the prohibition on harmful alteration, disruption, or  
6 destruction of fish habitat unless authorized by the  
7 Minister of Fisheries and Oceans or by regulation under  
8 the Fisheries Act.

9 Another important section of the Fisheries Act is  
10 Section 36, as mentioned by Environment Canada, which  
11 prohibits the deposit of a deleterious substance into  
12 fish-frequented waters unless authorized by a regulation  
13 made under the Fisheries Act. Under the terms of a  
14 memorandum of understanding with Environment Canada,  
15 Environment Canada administers Section 36 and those  
16 aspects dealing with the control of pollutants affecting  
17 fish. And of particular importance to the Meadowbank  
18 Project is the Metal Mining Effluent Regulations, which  
19 permits the deposit of deleterious substances into  
20 prescribed -- under prescribed conditions.

21 The northwest arm of Second Portage Lake is a  
22 fish-bearing water body, which is proposed to be used as  
23 a tailings impoundment area. This use requires an  
24 amendment to the Metal Mining Effluent Regulations, and  
25 under MMER, if a proposed tailings impoundment area is  
26 proposed to be constructed in a natural water body that

1 is fish-frequented, then the water body in question must  
2 be added to Schedule 2 of the regulations prior to  
3 tailings deposition and must be approved by the  
4 Governor-in-Council of Canada.

5 So the regulatory amendments for MMER can only be  
6 initiated following the completion of an environmental  
7 assessment and after Fisheries and Oceans Canada has  
8 determined that impacts to fish habitat are acceptable  
9 and can be mitigated and/or compensated. So Environment  
10 Canada is then responsible for preparing required  
11 documents in the form of a regulatory impact assessment  
12 statement so that the amendment can be forwarded to the  
13 GiC for consideration. So the Governor-in-Council has  
14 approved the proposal for listing on the Canada  
15 Gazette I, and the public comments are -- were received  
16 and being considered for a decision.

17 So the policy for the management of fish habitat  
18 guides DFO in the administration of fish habitat, the  
19 habitat protection provisions of the Fisheries Act, and  
20 there is an overall objective, which is to obtain a net  
21 gain of productive capacity of fish habitats for  
22 Fisheries resources.

23 There are three goals used to achieve this  
24 objective. It's conservation, restoration, and  
25 development of fish habitat, and the primary goal is  
26 conservation. The guiding principle in this

1       circumstance is no-net-loss of productive capacity of  
2       fish habitat. And the plan to address this principle is  
3       typically referred to as a no-net-loss plan, which is  
4       developed and implemented by the Proponent. Therefore,  
5       if a loss of fish habitat is unavoidable, then a Section  
6       35 Fisheries Act authorization would be required and  
7       only issued when the acceptable no-net-loss plan is  
8       provided.

9       So before I continue on with the intervention  
10      comments, I'd like to note a few things regarding our  
11      written submission. The Water Board may notice that  
12      there are comments relating to the Type B water license  
13      for the Meadowbank Gold Project access road, and DFO  
14      recognizes that this Type B water license is being  
15      reviewed separately from the Type A water license  
16      application. So DFO will not be presenting these items  
17      in this presentation, but if there are any questions,  
18      we'll be able to answer them.

19      DFO has also included recommendations for  
20      Agnico-Eagle Mines regarding the financial securities  
21      for the fish habitat features that will compensate for  
22      the harmful alteration, disruption, and destruction of  
23      fish habitat from the mine construction and the tailings  
24      impoundment area. These recommendations to Agnico-Eagle  
25      Mines are provided to the Board for their information  
26      and to make the Board aware of DFO's requirements under



1 MMER and the Fisheries Act.

2 So our other comments will surround the  
3 construction, water use, water management, tailings  
4 impoundment area, contingency planning, and monitoring.

5 So for the Board's information, the financial  
6 securities in the form of irrevocable letters of credit  
7 will be required from the Proponent by DFO specifically  
8 for the completion and monitoring of the fish habitat  
9 features within Second and Third Portage Lakes prior to  
10 the issuance of a Fisheries Act Subsection 35(2)  
11 authorization.

12 Two separate letters of credit would be required,  
13 one under the Metal Mining Effluent Regulations to cover  
14 the implementation of the no-net-loss plan for the  
15 northwest arm of Second Portage Lake as a tailings  
16 impoundment area, and the other one for the completion  
17 and monitoring of the habitat features compensating for  
18 the harmful alteration, disruption, or destruction of  
19 fish habitat under Fisheries Act Subsection 35(2)  
20 resulting from other components of the development  
21 proposal.

22 So DFO has requested Agnico-Eagle Mines to provide  
23 cost estimates for review relating to the completion and  
24 monitoring of the dike faces, finger dikes and  
25 extensions, habitat mounts, boulder guard and shoals,  
26 artificial reefs and basins of the Second Portage, Third

1 Portage, and Vault Lakes. These financial securities  
2 are separate from those obtained from other Government  
3 agencies and parties, as they only relate to the fish  
4 habitat compensation measures within the no-net-loss  
5 plan.

6 So under the category of construction, there are  
7 four items of infrastructure that are of interest to  
8 DFO, and this includes the eastern-most channel, Vault  
9 Lake road crossing, central and dewatering dikes, and  
10 fish habitat features.

11 So three channels connect Second Portage Lake with  
12 Third Portage Lake, the eastern-most channel, central  
13 and western-most channels, and the construction of the  
14 Portage pit will require that the western-most channel  
15 be eliminated. So it was asked in the EA phase whether  
16 the elimination of the western-most channel would  
17 require modifications to the eastern-most channel, and  
18 as indicated by Agnico-Eagle Mines yesterday,  
19 modifications will not be necessary, but -- however, if  
20 in order to mitigate potential sedimentation, AEM has  
21 proposed to remove vegetation and add riprap to the  
22 banks only if required and according to site conditions,  
23 so DFO recommends that vegetation removal be minimized,  
24 since vegetation would provide stability for the banks,  
25 and that's also according to whether it's necessary or  
26 not.

1           For the Vault Lake access road, it will cross a  
2 stream channel connecting Drill Trail Lake to Turn Lake,  
3 and in order to cross this channel, they've proposed to  
4 install two culverts, and these culverts will be  
5 embedded and installed in the winter in the dry -- the  
6 existing channel consists of large boulder substrate  
7 with a shallow depth, thus, preventing fish from moving  
8 between lakes, and the installation of culverts may  
9 allow upstream movement by fish. So there's potential  
10 improvement to the channel for the existing fish  
11 population. And Agnico-Eagle has committed to  
12 submitting final detailed design and construction  
13 drawings to the Water Board and DFO for review prior to  
14 commencing construction.

15           So for the no-net-loss plan, within that plan,  
16 Agnico-Eagle Mines has presented several fish habitat  
17 features to offset the loss of fish habitat from mine  
18 construction and the tailings impoundment area, and  
19 these features include the exterior and interior dike  
20 faces, finger dike extensions, habitat mounts, reefs,  
21 boulder gardens, shoals, and lake basins.

22           So within our written comments, DFO recommends that  
23 the final detailed design and success criteria for the  
24 East, Tails, Goose Island, and Bayzone dike faces be  
25 provided in the consolidated no-net-loss plan for review  
26 and approval no later than May 1st, 2008.

1           However, in Agnico-Eagle Mine's presentation  
2 yesterday, they proposed that the Water Board license  
3 require a submission of the detailed design of the Goose  
4 Island and Vault Lakes a minimum of six months prior to  
5 the planned start of construction. So if the Water  
6 Board is in agreement with this proposal by Agnico-Eagle  
7 Mines and their time line, then DFO would be in support  
8 of the Board's decision, provided that Agnico-Eagle  
9 Mines is committed to these time lines for submission to  
10 the Water Board and regulators for review and approval  
11 and that the time line for submission be clearly stated  
12 in the no-net-loss plan.

13           So DFO also recommends that Agnico-Eagle Mines  
14 consult with DFO regarding the success criteria for the  
15 fish habitat features prior to finalizing the monitoring  
16 programs and also that they provide as-built drawings of  
17 the fish habitat features to indicate how the features  
18 have changed through actual implementation and have an  
19 indication of their commitment in the no-net-loss plan  
20 as well.

21           Under water use, AEM has provided detailed design  
22 information on the proposed dewatering pipe in Second  
23 Portage Lake and the outfall diffuser. DFO acknowledges  
24 that AEM has substantially fulfilled the request for  
25 clarification of the dewatering pipe for review and  
26 approval. And AEM has recently proposed that water for

1 the emulsion plant will be taken from a small unnamed  
2 lake located 250 metres from the plant. The water is to  
3 be taken with the use of a submersible pump placed on  
4 the bottom of the lake with a hose connection to a rigid  
5 pipeline that will be placed from the shoreline to the  
6 emulsion plant, and DFO recommends that the detailed  
7 design drawings and plans of the intake pipe and fish  
8 screen be submitted no later than May 1st, 2008, for  
9 review and approval.

10 For water management, the assessment of the  
11 potential effects of pit lake flooding on Third Portage  
12 and Wally Lakes indicates that the drawdown will have a  
13 minimal decrease in water level. And as the flooding  
14 activities will occur in the summer, it appears that the  
15 small decrease in water levels in Third Portage Lake and  
16 Vault Lake will not have a significant impact on fish  
17 and fish habitat.

18 So DFO is of the opinion that the preliminary  
19 assessment of the potential effects of pit flooding on  
20 Third Portage and Wally Lakes indicates that the impacts  
21 to fish and fish habitat can be mitigated. However, as  
22 updated information on the re-flooding plan is  
23 developed, it should be submitted to the Water Board and  
24 regulators for review and approval prior to  
25 implementation. DFO also recommends that the water  
26 license should ensure that pit flooding is conducted so

1       that the water flow is maintained at downstream  
2       locations and at outlet streams.

3       For the tailings impoundment area, as it relates to  
4       water quality objectives and legal requirements under  
5       MMER, DFO defaults to Environment Canada's  
6       recommendations for the TIA in the northwest arm of  
7       Second Portage Lake and other general water quality  
8       parameters as they relate to the Meadowbank Gold  
9       Project.

10       And as indicated in the early slide under  
11       construction, the final detailed design drawings and  
12       monitoring plan for the fish habitat compensation  
13       features related to the loss of habitat resulting from  
14       the TIA are to be submitted by a -- DFO also recommends  
15       that the addendums to the no-net-loss plan be  
16       consolidated into one final no-net-loss plan document.

17       For the fish-out program, DFO is of the opinion that  
18       AEM has substantially completed the fish-out proposal  
19       for the northwest arm of Second Portage Lake, and AEM  
20       has committed to providing the final fish-out program,  
21       incorporating community consultation and scheduling of  
22       the fish-out programs in the other basins to DFO no  
23       later than May 31st, 2008, and we realize that there is  
24       a session tonight regarding that fish-out program, and  
25       comments on this program is for the Board's information.

26       Under contingency planning, the majority of the fish

1 habitat features to offset the loss of habitat from the  
2 mine construction and TIA rely heavily on water quality  
3 of the basins at mine closure. AEM has proposed to  
4 breach Goose Island and Vault dikes only in the event  
5 that the water quality within the pit lakes meets CCME,  
6 aquatic life guidelines, background lake concentrations,  
7 or other risk-based assessment criteria.

8 In the event that the water quality does not meet  
9 any of the above criteria and the dikes cannot be  
10 breached, an adaptive management plan with contingencies  
11 for alternative fish habitat compensation features is  
12 required. A contingency plan would also be required in  
13 the event targeted studies reveal that the habitat  
14 structures, such as the habitat mounts, finger dikes,  
15 dikes faces, reefs, shoals, and boulder gardens are not  
16 functioning as intended. Alternative compensation  
17 measures should be developed in consultation with the  
18 communities.

19 So DFO recommends that contingency plans detailing  
20 alternative fish habitat features to offset the loss of  
21 habitat from mine construction be developed in  
22 consultation with communities and DFO and be provided  
23 for review and approval.

24 The monitoring program within the no-net-loss plan  
25 requires further details on implementation and measuring  
26 effectiveness of fish habitat structures, and DFO

1 acknowledges that the Aquatic Effects Management Program  
2 contains targeted monitoring programs to address  
3 specific concerns related to the project components  
4 which are used to measure the effectiveness of fish  
5 habitat features.

6 Some examples, to measure the effectiveness of the  
7 dike faces, they'll be measured through the monitoring  
8 of pore water metals released from interstitial spaces  
9 of the dikes, there's periphyton colonization studies,  
10 and fish egg survival during incubation. So DFO  
11 recommends that the core monitoring programs and  
12 targeted studies outlined in the AEMP be provided in  
13 detail for review and approval. In addition, all  
14 baseline data must be submitted for review and  
15 incorporated, if appropriate, in monitoring programs.  
16 So DFO is also amenable to Environment Canada's  
17 suggestion that timing of the first update of the AEMP  
18 be discussed with parties with interest in water.

19 So AEM has provided a detailed monitoring plan with  
20 contingencies and threshold limits for the total  
21 suspended solids during dike construction and dewatering  
22 activities, and it's proposed that a silk curtain will  
23 be placed approximately 5 to 10 metres from the base of  
24 the dike and will be suspended off the lake floor to  
25 avoid re-suspension of sediments, and DFO acknowledges  
26 that AEM has substantially completed a monitoring plan



1 and presented the threshold limits for TSS.

2 So in conclusion, it's anticipated that the  
3 mitigation measures and recommendations will adequately  
4 address the identified concerns, and DFO expects that  
5 the final no-net-loss plan will adequately address  
6 residual impacts to fish and fish habitat. So DFO's  
7 comments and recommendations are based on our area of  
8 expertise and jurisdiction, so we trust that they are  
9 helpful to the Board as they consider the project before  
10 them.

11 And I would like to thank the Board, once again, for  
12 the opportunity to present our intervention and to thank  
13 AEM for their cooperation in trying to address DFO's  
14 comments. Thank you.

15 THE CHAIR: Thank you, DFO. I will  
16 start with AEM. Do you have a question or comments?

17 MR. CONNELL: Thank you, Mr. Chairman.  
18 Larry Connell. We thank DFO, but we have no questions.  
19 Thanks.

20 THE CHAIR: Thank you. INAC, question  
21 or comments? There's a microphone there.

22 MR. NADLER: Michael Nadler for INAC. We  
23 have no questions or comments.

24 THE CHAIR: Thank you. Does Environment  
25 Canada have a question or comments?

26 MR. GROSKOPF: Environment Canada has no

1 questions at this time.  
2 THE CHAIR: Thank you. GN-DOE, question  
3 or comments?  
4 MS. YEH: Helen Yeh with GN-DOE. We  
5 don't have any questions. Thank you.  
6 THE CHAIR: Thank you. Does NTI have  
7 any question or comments?  
8 MS. EHALOAK: Jeannie Ehaloak, NTI. No  
9 questions or comments at this time.  
10 THE CHAIR: Thank you. Does KIA have  
11 any question or comments?  
12 MR. MANZO: Luis Manzo, Kivalliq Inuit  
13 Association. No questions or comments at this time,  
14 Mr. Chairman.  
15 THE CHAIR: Thank you. Is there a  
16 question or comments from the public? Go ahead.  
17 PUBLIC QUESTIONS DFO:  
18 MS. PUTULIK: Thank you. Brenda Putulik  
19 from Chesterfield.  
20 Question: What plans are in place for any  
21 contaminants or if there were to be any spills in the  
22 marine or in the oceans within Chesterfield Inlet? I  
23 didn't see any indications in regards to that. Is there  
24 any emergency response to that? Quyannamiik.  
25 THE CHAIR: Thank you. DFO?  
26 MR. BALINT: Dave Balint with Fisheries

1 and Oceans. As far as the project is concerned, many of  
2 the spills would be covered in the spill contingency  
3 plan as presented by the company, and many of those  
4 issues would be dealt with there.

5 If there are a number of spills related to the  
6 marine environment and impacts on mammals, DFO also  
7 utilizes Coast Guard and different services related, and  
8 so they'd have a response team that would deal with  
9 those issues, and other agencies that would be in the  
10 area, wildlife officers would be able to provide that  
11 data to those companies that would look after that.

12 THE CHAIR: Thank you. Brenda?

13 MS. PUTULIK: Quyannamiik. Brenda  
14 Putulik.

15 The next question I would like to know is  
16 approximately how long would it take to come to the site  
17 to assess the damage and to clean, example, the spill on  
18 the barge with the fuel or any other toxics?  
19 Quyannamiik.

20 THE CHAIR: Quyannamiik. DFO?

21 MR. BALINT: Dave Balint, Fisheries and  
22 Oceans.

23 I would not be able to have a definitive answer. I  
24 know that there is an emergency response team that a  
25 number of different agencies across the north do respond  
26 to spill events like that, so there is a process in

1 place, a number of different agencies are involved, and  
2 that agency would be informed, so the spillage response  
3 team would get there, but I could not say how many days  
4 or hours that it would take.  
5 THE CHAIR: Thank you. Further  
6 questions from the -- Brenda?  
7 MS. PUTULIK: Quyannamiik. Brenda Putulik  
8 of Chesterfield.  
9 In cleaning up the fuel or any toxins, is there any  
10 materials, example, oil pads, these kinds of materials  
11 needed to clean up or assess the damage, or pretty much  
12 what I'm saying is will there be any materials in place,  
13 in hand, in case this does happen? Quyannamiik.  
14 THE CHAIR: Thank you, Brenda. DFO?  
15 MR. BALINT: Dave Balint, Fisheries and  
16 Oceans.  
17 I think much of the answer to the question is  
18 contingent on the carrier of the fuels, for instance.  
19 Many of those materials for any type of spill cleanup,  
20 that that is a requirement that those vessels that would  
21 have those materials have those on hand so that they can  
22 deal with some of those issues.  
23 THE CHAIR: Thank you. Any more  
24 comments from public? I take that there's no more.  
25 Okay, Staff, do you have any comments or questions?  
26 NWB STAFF QUESTION DFO:

1 MR. HOHNSTEIN: Yes, thank you, Mr. Chair.  
2 We're not going to miss Steve this time. We'll let him  
3 get his question in.  
4 THE CHAIR: Thank you. Steve?  
5 MR. LINES: Thank you, Mr. Chairman. I  
6 just wanted to go over the issue that DFO brought  
7 forward for Tear Drop Lake and the use of it as the  
8 storm water pond and for sewage treatment.  
9 I guess DFO, Mr. Chair, was uncertain whether or not  
10 at any time the pond was frequented by fish, and I'm of  
11 the understanding that that information was provided on  
12 March 31st by the Applicant to clarify the issue, and  
13 I'd just like to know from DFO if that issue regarding  
14 the use of Tear Drop Lake has been resolved or not.  
15 Thank you.  
16 THE CHAIR: Thank you. DFO?  
17 MS. LIU: Amy Liu from Fisheries and  
18 Oceans.  
19 That information was provided, and we feel that it  
20 is sufficient to -- for us to say that that water body  
21 is not fish-frequented or fish-bearing, so that we don't  
22 have a concern with that.  
23 THE CHAIR: Thank you. Any further  
24 questions from Staff?  
25 MR. LINES: Thank you, Mr. Chairman.  
26 That's all. Thank you, DFO.

1 THE CHAIR: Thank you. Is there any  
2 question from Board Members? Bob Hanson, do you have  
3 any questions or comments?  
4 MR. HANSON: Bob Hanson, Mr. Chairman.  
5 No, thank you. Appreciate it. Nothing from here.  
6 THE CHAIR: Thank you. Any questions  
7 from Board Members? There's none. Thank you, DFO, for  
8 your intervention.  
9 PRESENTATION BY GN-DOE:  
10 Okay, the next interveners will be GN-DOE. Could we  
11 have them sworn in.  
12 HELEN YEH, EARLE BADDALOO,  
13 sworn:  
14 THE CHAIR: Do you need more time to set  
15 it up?  
16 MR. CARR: We're okay.  
17 THE CHAIR: Okay, GN?  
18 MR. BADDALOO: Thank you, Mr. Chair, Board  
19 Members. My name is Earle Baddaloo, and I am Director  
20 of Environmental Protection for Department of  
21 Environment, part of the Nunavut Government family.  
22 Firstly, I would like to express my sincere thanks  
23 and appreciation to the Nunavut Water Board for allowing  
24 us the opportunity to present our intervention at this  
25 public hearing activity in Baker Lake regarding  
26 Agnico-Eagle's Meadowbank Gold Project. Secondly, I'd

1 like to acknowledge the Proponent, Agnico-Eagle, and  
2 thirdly, thank the host, Baker Lake, for allowing us the  
3 opportunity to visit their Hamlet and to carry out this  
4 activity in their beautiful community.

5 Sitting next to me is Ms. Helen Yeh, Manager of  
6 Environmental Assessment and Land Use for the Department  
7 of Environment. Ms. Yeh will be doing the technical  
8 intervention for the Department of Environment today.  
9 After which, I will deliver the Department of Community  
10 and Government Services' position in regard to security  
11 bonding for the marshalling area facilities, followed by  
12 some closing remarks.

13 Ms. Yeh?

14 MS. YEH: Thank you, Earle. On behalf  
15 of GN-DOE, I would like to present our review on the  
16 Meadowbank water license application submitted by  
17 Agnico-Eagle Mines Limited or AEM.

18 THE CHAIR: I'm sorry, I didn't hear  
19 your name.

20 MS. YEH: Sorry, Mr. Chair. Helen Yeh  
21 with GN-DOE.

22 Before I proceed with my review, I would like to  
23 briefly go through our legislation related to this  
24 project, and these are the Environmental Protection Act  
25 and Wildlife Act. The Environmental Protection Act  
26 creates the GN authority to regulate the discharge of

1 contaminants and the impacts on the environment. The  
2 Wildlife Act creates the GN-DOE authority for the  
3 management of human activity that impacts wildlife. And  
4 lastly, we also have the responsibility on the CCME  
5 Canada-wide standards, as the Government of Nunavut is a  
6 signatory to the standards.

7 Our review and the concerns or recommendation  
8 related to this Meadowbank water license application  
9 form the following six topics: Water management and  
10 water quality; waste management; geochemistry;  
11 contingency planning; monitoring; and lastly, closure  
12 and reclamation.

13 Issue number 1 is related to water quality. During  
14 parts of the mine operation, there will be discharges  
15 from the attenuation ponds to the environment through  
16 the Portage and Wally Lake diffusers. GN-DOE were  
17 previously unclear about the discharge standards. In  
18 response to our previous concern, AEM indicates that  
19 discharges would comply with the Metal Mining Effluent  
20 Regulations or MMER at the diffuser discharge points.  
21 AEM further indicates that they will ensure water  
22 quality meets either the CCME within a 30-metre radius  
23 of the two diffusers or site-specific criteria.

24 GN-DOE further recommends that the site-specific  
25 criteria should be approved by Environment Canada. We  
26 recommend the above-discussed commitment and



1 recommendation forms the terms of the license if it's  
2 issued.

3 Issue number 2 is related to water management. AEM  
4 proposes water management and mitigation measures that  
5 would control and minimize discharges to the environment  
6 for water in contact with mine site components. AEM  
7 also proposes treatment methods to address concentration  
8 of total suspended solids, metals, and cyanide species.  
9 In the GN-DOE technical submission, we commented that  
10 even the best models cannot compare with the evaluation  
11 of operational monitoring data that allows for refined  
12 water quality predictions and management plans,  
13 including treatment needs.

14 GN-DOE, therefore, recommended that AEM refine water  
15 quality predictions and management plans based on  
16 monitoring data during operation. And AEM concur with  
17 our recommendation. AEM's commitment to refine and  
18 update water quality predictions and management plans  
19 based on updated monitoring data is recommended for the  
20 term of the license if issued.

21 Issue number 3, sewage treatment and management.  
22 During mine operation, treated sewage will be discharged  
23 to a fishless lake, namely, the Tear Drop Lake. The  
24 lake will be built up in depth with insulation or  
25 impervious walls to serve as a storm water management  
26 pond. AEM has stated that sewage treatment system will

1 be installed and that the effluent discharge will meet  
2 the guidelines for the discharge of treated municipal  
3 waste water in the Northwest Territories. AEM also is  
4 committed to monitor the quality of the treated sewage  
5 effluent prior to the discharge, and this commitment  
6 should follow the term of the license if it's issued.

7 However, upon mine closure, it is unclear whether or  
8 not AEM plans to restore the water quality of the Tear  
9 Drop Lake to appropriate standards. GN-DOE recommends  
10 that AEM restores the lake water to appropriate  
11 standards upon closure, and this recommendation is  
12 recommended to form a term of the license.

13 Issue number 4, landfill and landfarm  
14 design/construction/and as-built drawings. There are  
15 two landfills and a landfarm proposed for the Meadowbank  
16 Project. AEM indicated final construction drawing for  
17 these facilities will be based on final design drawing  
18 stamped by professional engineers.

19 To this date, AEM has submitted final design  
20 drawings stamped by professional engineer and registered  
21 in the Northwest Territories for the landfill number 1  
22 and the landfarm. AEM further commits to provide  
23 construction drawings for review prior to construction.  
24 For the landfill number 2, as it will be built upon a  
25 structure to be built during mine operation, AEM  
26 proposed that the final design drawing to be submitted

1 prior to commissioning of the landfill. GN recommends  
2 that the construction drawing for landfill number 2  
3 should also be submitted prior to construction. And  
4 finally, GN-DOE further recommends that as-built  
5 drawings for both landfills and the landfarm are  
6 submitted. And the above commitment and recommendation  
7 are recommended for the term of the license if issued.

8 Issue number 5 is related to landfill management.  
9 AEM has outlined a list of material to be landfilled  
10 including asbestos, white goods such as refrigerators  
11 and light bulbs, such as fluorescent lamp tubes.  
12 However, AEM did not provide detailed landfilling  
13 procedures for these items. This concern was raised by  
14 GN-DOE in our previous technical submission.

15 And in response to our concern, AEM proposed to  
16 handle and segregate the management of these  
17 above-mentioned wastes according to the relevant Federal  
18 and Territorial guidelines. GN-DOE is satisfied with  
19 this commitment and recommends this commitment forms a  
20 term of the license if issued.

21 Issue number 6 is related to remediation guidelines  
22 for hydrocarbon-contaminated soil. For remediation of  
23 hydrocarbon-contaminated soil, AEM is committed to  
24 comply with both the CCME Canada-wide standards and the  
25 relevant GN-DOE guidelines. Additionally, AEM is  
26 committed to measure appropriate parameters during the

1 remediation process. GN-DOE is satisfied with AEM's  
2 commitment discussed above and recommends these  
3 commitments for the term of the license if issued.

4 Issue number 7 is related to acid rock drainage and  
5 metal leaching. AEM has developed sampling and  
6 management plans for potentially acid-generating or PAG  
7 material to mitigate the potential for acid drainage and  
8 metal leaching. Additionally, AEM has developed a water  
9 quality and flow-monitoring plan to track changes in  
10 drainage chemistry.

11 In the GN-DOE previous technical submission, we  
12 raised the concern about how change in ARD test method  
13 during re-evaluation of ARD and metal leaching may  
14 affect rock characterization and volume calculation of  
15 waste rock. The difference in test results may affect  
16 overall plans for management of waste rock. AEM concur  
17 with GN-DOE and responded that all additional test  
18 results collected in the future will be used to verify  
19 the current information.

20 Additionally, GN-DOE previously identified a concern  
21 about insufficient testing for ARD and metal leaching  
22 potential for materials along the all-weather road such  
23 as the material at the quarry site. AEM responded that  
24 they will be surveying rock quality and drainage  
25 chemistry at each quarry site over the summer of 2008 in  
26 order to finalize quarry closure plans. GN-DOE

1 recommends these commitments discussed above for the  
2 term of the license if issued.

3 Issue number 8 related to metal leaching. In the  
4 GN-DOE technical submission, we identified a lack of  
5 correlation between total metal concentration and metal  
6 leaching rate for waste rock. Without this correlation,  
7 it is difficult to understand metal leaching potential  
8 of nonpotentially acid-generating materials which are to  
9 be used for construction and capping materials.

10 AEM responded that they will continue to conduct  
11 total metal analysis and shake flask extraction tests.  
12 AEM is also committed to continue operating humidity  
13 cells and large fuel cells to better understand metal  
14 leaching potential and leaching rate for both nonPAG and  
15 PAG packed materials. GN-DOE recommends this commitment  
16 by AEM forms a term of the license if issued.

17 Issue number 9 is related to landfarm management and  
18 contingency planning. Soil contaminated by spill is to  
19 be treated in an outside landfarm and remediated to  
20 appropriate standards. In the case where there are  
21 large spills and the landfarm cannot accommodate, AEM  
22 proposed to temporarily store the contaminated spill  
23 material at the tank farm burn area or construct a  
24 second landfarm to accommodate the spill materials.  
25 However, details related to these contingency measures  
26 have not been provided for review. Note that AEM is

1 committed to initiate planning to these contingency  
2 measures. Therefore, we, GN-DOE, recommends AEM's  
3 commitment to initiate planning for these contingency  
4 measures should form a term of the license.

5 Issue number 10 is related to spill contingency  
6 planning. GN-DOE believe the spill contingency planning  
7 submitted by AEM is generally satisfactory. AEM is  
8 committed to revise the spill plan yearly as a minimum  
9 and as needed, and this commitment by AEM should form a  
10 term of the license if issued.

11 However, in our previous technical submission, we  
12 noticed some areas in the spill plan that could be  
13 improved. AEM in the technical meeting indicated a  
14 willingness to incorporate all comments and improve the  
15 plan. However, this commitment has not been noted in  
16 the AEM's written response on March 7th, 2008. GN-DOE,  
17 therefore, recommends AEM incorporates GN-DOE's  
18 comments, and they revise the -- when they revise their  
19 spill contingency plan, and we recommend these  
20 recommendations form a term of the license if issued.

21 Issue number 11 related to thermal monitoring and  
22 tailings storage facility. AEM predicted that frozen  
23 condition within the tailings storage facility, or TSF,  
24 will take 10 to 15 years. Once frozen conditions are  
25 established, the ability of the tailings to produce acid  
26 and leach metals will be minimized. However, we

1 previously were unclear about the period of the thermal  
2 monitoring proposed.

3 AEM responded that they will conduct thermal -- they  
4 will monitor thermal conditions within the TSF until it  
5 can be clearly demonstrated that the underlying tailing  
6 mass has been re-frozen and no longer presents an  
7 environmental risk.

8 For the purpose of estimating reclamation liability,  
9 it has been assumed that this will require a minimum  
10 post-closure monitoring period of 15 years. GN-DOE is  
11 satisfied with AEM's commitment to conduct thermal  
12 monitoring of the TSF until it does not present an  
13 environmental risk. We further recommend that the  
14 thermal monitoring result be reported annually. These  
15 commitments and reporting recommendation are recommended  
16 to form a term of the license if issued.

17 Issue number 12 related to thermal monitoring and  
18 rock storage facility or RSF. Waste rock from mining  
19 operation will be disposed of in the Portage and Vault  
20 rock storage facilities. The establishment of frozen  
21 condition within these facilities will minimize the  
22 likelihood of acid drainage and metal leaching. GN-DOE,  
23 however, were previously uncertain whether AEM plans to  
24 conduct thermal monitoring for the two rock storage  
25 facilities.

26 AEM responded that they intend to monitor thermal

1 condition and chemical drainage condition in both RSF to  
2 verify physical and chemical stability. Mitigative  
3 measures will be employed if monitoring indicates that  
4 chemical and physical stability are not present. GN-DOE  
5 is satisfied with this commitment and recommends these  
6 form a term of the license if issued.

7 Issue number 13 is related to dikes breaching and  
8 water quality. Dikes separating the flooded open pits  
9 from nearby lakes will eventually be breached, and the  
10 water in the pit lakes may contain elevated levels of  
11 metals. In the GN-DOE technical submission, we raised  
12 the concern about the water quality in the pit lake at a  
13 point where the dikes are breached. Inadequate water  
14 quality within the pit lake will affect the surrounding  
15 lake water quality when the dikes are breached.

16 AEM responded that they propose to breach the dikes  
17 only where the water quality within the dike -- within  
18 the pit lakes meet the CCME guidelines, background lake  
19 concentration, or other risk-based assessment criteria.  
20 GN-DOE's supports AEM's proposal to meet CCME guidelines  
21 or site-specific criteria within pit lakes prior to dike  
22 breaching. The site-specific criteria should be  
23 approved by Environment Canada, and these commitments  
24 and recommendations are recommended to form a term of  
25 the license.

26 Issue number 14 is related to closure for the



1 tailings storage facility and rock storage facility. In  
2 the GN-DOE technical submission, we indicated that  
3 closures assessed of the TSF and the RSF is based on the  
4 assumption such as correct rock characterization and  
5 establishment of frozen condition within the cores of  
6 these facilities. However, there are underlying fuel  
7 realities that may affect these assumptions during mine  
8 operation. GN-DOE, therefore, recommended that AEM  
9 revise closure plans for these facilities as the  
10 operational information and management plans are  
11 revised.

12 AEM concur with our comments and indicated that they  
13 will update a closure plan for the Vault rock storage  
14 facility based on additional rock characterization  
15 information; however, we are unclear if this commitment  
16 to update closure plans will also be applied to TSF and  
17 the Portage RSF. Therefore, we recommend AEM revise the  
18 closure plan for the TSF and the two RSF's as  
19 operational information and management plans are  
20 revised, and we recommend this form a term of the  
21 license if issued.

22 And the last issue is related to revegetation and  
23 reclamation. GN-DOE were previously concerned about the  
24 short monitoring period, i.e., 11 years post-closure for  
25 revegetation post-closure. AEM responded to our concern  
26 and indicated that they will continue to monitor the

1 condition at the reclaimed Meadowbank site, including  
2 the success of revegetation measures until the landowner  
3 and the Nunavut Water Board are satisfied that the site  
4 is chemically and physically stable and that the ongoing  
5 risk of release of contaminants to the surrounding  
6 environment has been adequately addressed. GN-DOE is  
7 satisfied with AEM's commitment and recommends these  
8 form a term of the license if issued.

9 To sum up our review, the water license application  
10 submitted by AEM described measures to mitigate and  
11 manage potential impacts resulting from the Meadowbank  
12 Project. The application generally provides  
13 satisfactory mitigation and management procedures for  
14 all waste streams and hazardous materials. GN-DOE  
15 support this license application moving forward if these  
16 concerns and recommendations discussed above are  
17 addressed.

18 Before we conclude our presentation, Earle Baddaloo  
19 will make some statements on behalf of Community and  
20 Government Services also with the GN regarding security  
21 issues.

22 MR. BADDALOO: Thank you, Helen.  
23 Mr. Chair, Earle Baddaloo.

24 Firstly, I regret to say that Community Government  
25 and Services are -- of the Government of Nunavut was  
26 unable to attend this intervention, so they have asked

1 that I outline their position concerning security  
2 bonding for the marshalling area facilities in Baker  
3 Lake.

4 Land use Permit Number 603-0-LUP-07-001 for the  
5 marshalling area facilities commenced on May 4th, 2007,  
6 with an expiry date of May 4th, 2008. The facilities,  
7 all of which are to be fenced, consists of barge  
8 unloading facility with an adjacent storage and  
9 marshalling area, fuel storage for four 10 million litre  
10 tanks, a storage compound for explosives,  
11 interconnecting roads, and an office trailer will  
12 compose the site.

13 AEM has indicated that they are currently weighing  
14 various options for the location of the site. CGS  
15 issued that they will seek appropriate financial  
16 security for the component of the project on  
17 Commissioner's land. CGS will know better which  
18 component of the project to include in its liability  
19 assessment once AEM has provided the necessary details  
20 concerning the location of the marshalling area. CGS  
21 will discuss the options of security bonding with the  
22 company once the GN has concluded its assessment, and  
23 CGS understands that INAC, Indian and Northern Affairs  
24 Canada, will hold security for any water-related  
25 liabilities.

26 We, the GN-Department of Environment, would like to

1       thank the Nunavut Water Board and its Staff for the  
2       opportunity to comment on this license application, and  
3       we look forward to continued high quality working  
4       relationships with all working parties.  
5       We would again express our sincere thanks to the  
6       Hamlet and also to all of the interveners and the  
7       attending public for patiently listening to us.  
8       Thank you, Mr. Chair.  
9       THE CHAIR:                               Thank you, GN-DOE. Before  
10      we carry on with comments -- questions and comments from  
11      various parties, one of the Board Member have to go to  
12      the washroom, so we take about a 5-minute break.  
13      (BRIEF ADJOURNMENT)  
14      THE CHAIR:                               Okay, get back again.  
15      Before we proceed, can I -- Bob and Bill, are you on the  
16      line?  
17      MR. HANSON:                             Yes, I am, Lootie. Thank  
18      you.  
19      MR. TILLEMANN:                         Yes, I am Lootie, thank you.  
20      THE CHAIR:                             Okay, can we have  
21      clarification? Dionne?  
22      MS. FILIATRAULT:                      No, Mr. Chairman, you can  
23      proceed to questions. We'll do administration after the  
24      questions.  
25      THE CHAIR:                             Okay, we are now going to  
26      question the GN intervention. Now, can I ask the

1 Applicant whether you have questions or comments to  
2 GN-DOE?  
3 AEM QUESTIONS GN-DOE:  
4 MR. CONNELL: Thank you, Mr. Chairman.  
5 Just some points of clarification.  
6 On the slide that was titled "Issue Number 8, Metal  
7 Leaching", it quotes that our commitment was: (As Read)  
8 ...to re-evaluate metal leaching potential by  
9 establishing correlations between total metal  
10 concentrations and metal leach rates for the  
11 nonpotentially acid-generating materials.  
12 In the written material, I think it's Issue Number 9 in  
13 the written material, it talks about that being for PAG  
14 material. I just want to confirm that our commitment  
15 was for the nonpotentially acid-generating material as  
16 you have here. Just make sure that we're talking the  
17 same thing.  
18 MS. YEH: At the technical meeting, I  
19 think you --  
20 THE CHAIR: Excuse me, can you state  
21 your name before you speak?  
22 MS. YEH: Sorry, Mr. Chair, Helen Yeh  
23 with GN-DOE.  
24 I believe at the technical meeting, you committed to  
25 conduct further studies related to both PAG and nonPAG,  
26 and the reason for getting more samples for the PAG

1 material, just to establish the maximum leaching rate,  
2 and for the nonPAG because the material, the  
3 nonpotentially acid-generating material will be used for  
4 construction. So that's why we request that you conduct  
5 further studies regarding to those materials.  
6 THE CHAIR: Thank you. Applicant, do  
7 you have a further question?  
8 MR. CONNELL: Thank you, Mr. Chairman.  
9 Larry Connell.  
10 I think there's no disagreement the fact that that  
11 was our commitment for the nonpotentially  
12 acid-generating material. It's the fact that there's  
13 not continuing between the two texts and that our -- the  
14 commitment was definitely for the nonPAG material,  
15 specifically for the metal leaching rates, but the PAG  
16 material was for other items. It's not necessarily for  
17 metal leaching.  
18 THE CHAIR: Thank you. GN?  
19 MS. YEH: Okay, understood. We don't  
20 have any further questions.  
21 THE CHAIR: Okay. Applicant, do you  
22 have further question or comments?  
23 MR. CONNELL: Thank you, Mr. Chairman,  
24 Larry Connell again.  
25 The next one was on -- again, it's a clarification  
26 point. It's on the slide that's titled "Issue Number

1 11". This is the thermal monitoring of the tailings  
2 storage facility, and it was our commitment that we  
3 would monitor thermally the underlying frozen tailings  
4 until we demonstrated that those tailings were totally  
5 frozen.  
6 I just want to make the point or make it understood  
7 that our commitment was for -- until we could prove it  
8 was frozen. Then what -- well, we had to turn that into  
9 a cost. We just assumed 15 years. So we don't want --  
10 or wanted to ask the question is the GN saying that the  
11 Board should put the 15 years in as a minimum? Because  
12 that was never our intent, our intent was to do it until  
13 we could prove it. But for costing purposes, we just  
14 assumed 15 years.  
15 THE CHAIR: Thank you. GN?  
16 MS. YEH: No, our intention was to --  
17 THE CHAIR: Can you state your name?  
18 MS. YEH: Sorry, Mr. Chairman. Helen  
19 Yeh with GN-DOE.  
20 Yes, our intention was to bring up the fact that  
21 your liability estimate is based on a minimum of 15  
22 years, but, of course, we would like you to make a  
23 commitment to show that you will continue monitoring the  
24 thermal condition until it proves there is no longer  
25 environmental risk.  
26 THE CHAIR: Thank you. Applicant, do

1       you have a further question?

2       MR. CONNELL:                   Thank you, Mr. Chairman.

3       It's Larry Connell again.

4           The next one had to do with Issue Number 14, and I  
5       think it's just again just to make sure that everyone's  
6       clear on the same thing. This is the one where we're  
7       talking about closure plans for the tailings storage  
8       facility and the rock storage facilities, and  
9       specifically it's with relation to the thermal  
10       monitoring of the Vault deposit.

11       In the Vault deposit, we aren't relying upon the  
12       ground having to freeze. We have an excess capacity of  
13       potentially acid-generating material to acid-generating  
14       material for that dump. So that dump is distinctly  
15       different than the Portage dump, in that reliance upon  
16       freezing wasn't the purpose on that dump. It doesn't  
17       require to be frozen to be stable, chemically stable.

18       I just want to make sure that GN, that that was your  
19       understanding as well. But definitely for the Portage,  
20       that relies upon freezing, and it has to be thermally  
21       monitored to demonstrate that.

22       THE CHAIR:                   Thank you. GN?

23       MS. YEH:                   Helen Yeh with GN-DOE.

24       Are you saying that you won't be -- then conduct  
25       thermal monitoring for the Vault storage facility then?  
26       Because my understanding was that there's some PAG



1 material that will be deposited in that storage area as  
2 well, and I think in your written response to us in  
3 March, you did indicate that you are planning to conduct  
4 thermal monitoring for that rock facility.  
5 THE CHAIR: Thank you. Any further  
6 questions from Applicant?  
7 MR. CONNELL: Sorry, one sec. Sorry for  
8 that, Mr. Chairman. Thank you. Larry Connell.  
9 My understanding from our commitment is that the  
10 commitments that were made were to definitely monitor  
11 thermally the covers that are required to address the  
12 PAG material stored in the Portage and the PAG material  
13 stored on the TSF, but the Vault itself doesn't require  
14 a cover in order to manage the PAG rock because the PAG  
15 rock material that's within the Vault is small enough  
16 that it's covered by or entombed within significant  
17 volumes of nonacid-generating rock. And so the -- there  
18 isn't a need or a requirement that you have to thermally  
19 monitor it because there isn't a need to demonstrate  
20 that you have to leave behind a frozen dump in order to  
21 be chemically stable. So there seems to be some  
22 misunderstanding on that issue.  
23 THE CHAIR: Thank you. GN?  
24 MS. YEH: So I'm still unclear. So  
25 how are you planning to manage the risk of potentially  
26 acid drainage from those PAG material in the Vault

1 storage facility?

2 THE CHAIR: Thank you. Applicant, go  
3 ahead.

4 MS. BERTRAND: Thank you, Mr. Chair. This  
5 is Valerie Bertrand.

6 There being potentially acid-generating rock does  
7 not necessarily mean that it's going to generate acidic  
8 drainage. It's a balance. There is some rock that does  
9 contain minerals that may rust and generate acid, but  
10 overall, the balance of that rock is much lower than the  
11 rock that is actually buffering. So in terms it will --  
12 the prediction is that it will never generate drainage  
13 that is actually acidic and metal rich. There will be  
14 some oxidation going on from some of the rock there, but  
15 the mixing itself and the contribution of buffering  
16 capacity from the rock that is overwhelmingly acid  
17 buffering will neutralize this drainage. We also show  
18 this in a number of reports on kinetic testing and  
19 static testing.

20 THE CHAIR: Thank you. GN?

21 MS. YEH: I understand that you are  
22 planning to use -- Helen Yeh with GN-DOE.

23 I understand you are going to use some material to  
24 neutralize potential acid drainage, but are you proposed  
25 to doing the monitoring? And also if your mitigated  
26 measures is not shown to work out in the end, what's

1 your contingency measures?  
2 THE CHAIR: Thank you. Applicant?  
3 MS. BERTRAND: This is Valerie Bertrand.  
4 Okay, we have -- we will be monitoring water quality in  
5 the dump. We have a number of monitoring points in that  
6 area, so we'll be monitoring any drainage coming from  
7 the rock pile. We'll be monitoring the quality of pit  
8 water, and we need to achieve previously -- or we need  
9 to achieve criteria that's protective of the environment  
10 before we breach the dike also at the Vault area. So we  
11 would be monitoring water quality directly from the rock  
12 pile and in the flooded pit.  
13 With respect to -- we also have a monitoring plan  
14 for waste rock and guidance as to how to encapsulate any  
15 potentially acid-generating material that comes out from  
16 the Vault pit, and that -- you can refer to Support  
17 Document 425 to the water license application.  
18 The water quality monitoring plan that outlines  
19 what's going to -- the monitoring that will happen at  
20 Vault area is also described in Document 450 to the  
21 water license application.  
22 THE CHAIR: Thank you. GN?  
23 MS. YEH: Helen Yeh, again. I think  
24 we are fine as long as the AEM is committed to monitor  
25 the water quality coming out of the drainage. We don't  
26 have further issues.

1 THE CHAIR: Thank you. Applicant, do  
2 you have further questions or comments?  
3 MR. CONNELL: Thank you, Mr. Chairman. I  
4 have no further questions.  
5 THE CHAIR: Thank you. Does INAC have  
6 any comments, question or comments?  
7 MR. NADLER: It's Michael Nadler with  
8 INAC. We have no questions or comments.  
9 THE CHAIR: Thank you. Does Environment  
10 Canada have any question or comments?  
11 MR. GROSKOPF: Glenn Groskopf for  
12 Environment Canada. We don't have any questions or  
13 comments.  
14 THE CHAIR: Thank you. Does DFO have  
15 any question or comments?  
16 MS. LIU: Amy Liu with Fisheries and  
17 Oceans. We have no questions or comments at this time.  
18 THE CHAIR: Thank you. NTI?  
19 MS. EHALOAK: Jeannie Ehaloak, NTI. I  
20 have no questions or comments at this time.  
21 THE CHAIR: Thank you. KIA?  
22 MR. MANZO: Luis Manzo, Kivalliq Inuit  
23 Association. No, I have no questions or comments at  
24 this time, Mr. Chairman.  
25 THE CHAIR: Thank you. Is there any  
26 questions or comments from public?

1 PUBLIC QUESTIONS GN-DOE:  
2 MS. PUTULIK: Brenda Putulik. Thank you.  
3 It's my understanding that the ships and barges will  
4 have a spill kit. In your opinion, do you think it's a  
5 good idea to have the community of Baker Lake and  
6 Chesterfield Inlet to also have a spill kit on hand  
7 within the community? Quyannamiik.  
8 THE CHAIR: Thank you. GN-DOE?  
9 MR. BADDALOO: Thank you, Mr. Chair. It's  
10 Earle Baddaloo.  
11 In regard to spill contingency planning for the  
12 communities, it is part of the responsibilities that we  
13 under Community and Government Services for communities  
14 to have a spill contingency plan for spills that locate  
15 within Commissioner's land. So in addition to that, the  
16 wildlife officers that are in the community are trained  
17 to handle spills, and in such instances, they also have  
18 the help of adjacent communities to come in to serve  
19 that purpose. Thank you.  
20 THE CHAIR: Thank you. Any further  
21 question, Brenda?  
22 MS. PUTULIK: Quyannamiik. First of all,  
23 I have two questions. First of all, how far is the  
24 Coast Guard's headquarters? And do you think it would  
25 be ideal to train and educate of how to handle spills  
26 within the community of Baker Lake and Chesterfield

1 Inlet, keep in mind that we only have one Wildlife  
2 Officer? Quyannamiik.  
3 THE CHAIR: Thank you. GN?  
4 MR. BADDALOO: Thanks, Mr. Chair. Earle  
5 Baddaloo.  
6 In regard to the Coast Guards, I cannot speak for  
7 the Coast Guards as they don't come under the  
8 responsibilities of the Government of Nunavut. However,  
9 yes, I realize that there is a capacity concern with  
10 regard to spills and the number of people that are  
11 trained to handle such incidences. However, if a spill  
12 does occur in any community, as it did, say, in Rankin  
13 Inlet a few years ago, we were able to get people into  
14 the area to handle the spill. That's a spill that falls  
15 under the responsibility of the Government of Nunavut.  
16 Thank you.  
17 THE CHAIR: Thank you. Brenda? Any  
18 further question from public? Okay, I take that -- oh,  
19 okay, there's one.  
20 MS. MUELLER: Barb Mueller from Baker  
21 Lake.  
22 How long -- if there was a spill, how long would it  
23 take the Government to mobilize people to get into the  
24 community? Last July at breakup, one of the barges that  
25 had contained fuel in this community leaked, and nothing  
26 was done for at least two days, and because of where I

1 live in the community, you could see the oil just -- or  
2 the fuel or whatever was in the barge just descending  
3 out on the lake. It eventually was cleaned up, but it  
4 took a long time, and it -- if it was a larger spill and  
5 with the currents in the water, it would have gone a  
6 long way.

7 So I'm wondering how long the response would be if  
8 it was a major spill; and that's a potential, there's a  
9 potential for that happening with the location of the  
10 tank farm because it is higher than the lake. It's on  
11 bedrock. I am aware of that, but it is higher than the  
12 lake, and we all know that gravity flows downward.

13 Thank you, Mr. Chairman.

14 THE CHAIR: Thank you. GN-DOE?

15 MR. BADDALOO: Thank you, Mr. Chair. Earle  
16 Baddaloo.

17 In regard to a spill in Baker Lake, for instance, as  
18 I indicated earlier, we have staff here that are trained  
19 to handle oil spills. I know it's very, very difficult  
20 to say how long it takes, and, as the attendee pointed  
21 out, that this has happened in the past, and it took  
22 some time.

23 In a situation where the spill occurs in water,  
24 it's -- it doesn't fall under the GN responsibility.  
25 However, the GN is there for assisting, as the case may  
26 be. When the spill occurs on land, it falls within the

1 Commissioner's land responsibility. In previous  
2 instances, for instance, when Quebec Energy had a spill  
3 on land, we were there up front and center to assist  
4 with dealing with the spill. Thank you.  
5 THE CHAIR: Thank you. Is there any  
6 further questions from public? Okay, I take that  
7 there's no more.  
8 MR. BADDALOO: Mr. Chair, could I ask Helen  
9 to add a couple more points?  
10 THE CHAIR: Go ahead.  
11 MS. YEH: Helen Yeh with GN-DOE. I  
12 think it is important for AEM to realize on the timing  
13 that it will require to respond to major events such as  
14 spills, and I think it would be more in your spill  
15 contingency plan to outline personnel and the time that  
16 it would require, so if there's any spill that happen,  
17 then you would be able to mobilize your response and  
18 personnel wherever you are hiring the people from.  
19 THE CHAIR: Thank you. Applicant?  
20 MR. CONNELL: Thank you, Mr. Chairman.  
21 Larry Connell.  
22 That is Agnico's intent. We're -- as we develop and  
23 ramp-up with our work force, we are putting together  
24 emergency response teams. We'll be coordinating those  
25 with the community. And for our responsibility, when it  
26 comes into the tanks, we will be ramping-up to be able



1 to handle that.

2 With respect to the on-water, that obviously falls  
3 out of our jurisdiction. It falls with NTCL or whoever  
4 the supplier is, but, you know, if we have capacity, we  
5 have materials, we're not sitting back. Spills are  
6 spills, and they need to be dealt with. Whoever has got  
7 the wherewithal and material to handle it, and we figure  
8 out it gets dealt with afterwards. So in that  
9 situation, we would be there with whatever resources we  
10 had and helping out, and then we'd worry about whose  
11 responsibility it was afterwards.

12 THE CHAIR: Thank you. Can I ask the  
13 Staff, is there a question from the Staff? Steve?

14 NWB STAFF QUESTION GN-DOE:

15 MR. LINES: I just have one question,  
16 Mr. Chairman, thank you.

17 It's on GN Issue Number 6 regarding the remediation  
18 guideline for hydrocarbon-contaminated soil, and the GN  
19 recommends that the Applicant follow the guideline for  
20 the GN's own guideline for contaminated site  
21 remediation, and in that guideline, there are four  
22 different standards for it, and I was just wondering if  
23 the GN can make a recommendation on which standard would  
24 apply to the project. Thank you.

25 THE CHAIR: GN?

26 MS. YEH: Helen Yeh with GN-DOE.

1           We would recommend the AEM to comply with the  
2 guideline related to industrial purposes, as we  
3 understand the remediated soil will be used as a capping  
4 for landfill. However, if this is not the case, if the  
5 remediated soil will be applied for remediation  
6 purposes, then we would recommend AEM to comply with our  
7 guideline for the park land purposes.  
8 THE CHAIR:                           Okay, before we continue on,  
9 there's a public question. Go ahead.  
10 PUBLIC QUESTIONS GN-DOE:  
11 MS. MUELLER:                        I apologize, Mr. Chairman.  
12 Barb Mueller. I don't see as well as I used to. I  
13 don't have my glasses on, and sometimes it takes me a  
14 few minutes to kind of put things together in my head,  
15 but I guess I'm asking further to my previous question  
16 and comment with where does the GN's responsibility  
17 begin and end, and where does AEM's responsibility begin  
18 and end in relation to spills leakages, that sort of  
19 thing. Thank you. Thank you, Mr. Chairman.  
20 THE CHAIR:                           Thank you. GN?  
21 MR. BADDALOO:                       Mr. Chair, Earle Baddaloo.  
22           In the case of jurisdictions, there are different  
23 areas. For instance, the GN has jurisdiction on  
24 Commissioner's land, and we have a spill emergency  
25 response line that is notified upon spill, and this  
26 travels quickly through the territory. In the case of

1 water, that's another jurisdictional responsibility.  
2 However, in the event of spills, particularly  
3 relating to this project, there is the opportunity for  
4 assistance from various different groups in regard to  
5 this. And the last question clearly outlined that  
6 procedure, so it is dealt a little bit different when  
7 this thing occurs, so when a spill or something like  
8 that occurs on the land or in the water. Thank you.  
9 THE CHAIR: Thank you. Back to Staff.  
10 Is there any further question from the Staff?  
11 MR. LINES: I don't have any more  
12 questions. Thank you.  
13 THE CHAIR: Thank you. Is there any  
14 question or comments from the Board? Bob Hanson, do you  
15 have any comments or question?  
16 MR. HANSON: Thank you, Mr. Chairman.  
17 Bob Hanson here. I have no questions, sir.  
18 THE CHAIR: Thank you. Any questions  
19 from the Board Members? Thank you, GN, for your  
20 intervention.  
21 MS. YEH: Thank you, Mr. Chair, for  
22 the opportunity.  
23 MR. BADDALOO: Thanks, Mr. Chair.  
24 THE CHAIR: We'll continue on with Staff  
25 administration. Don Carr, go ahead.  
26 PROCEDURAL MATTERS:

1 MR. CARR: Thank you, Mr. Chair, Don  
2 Carr.  
3 If there are no objections, I'd like to enter the  
4 following as exhibits: Exhibit 10, electronic,  
5 Environment Canada's Intervention on the Meadowbank Gold  
6 Project, April 2008, submitted by Anne Wilson; Exhibit  
7 11, hard copy Environment Canada's Intervention on the  
8 Meadowbank Gold Project, April 2008, Anne Wilson;  
9 Exhibit 12, Electronic, DFO Intervention Comments to the  
10 Nunavut Water Board on the Meadowbank Gold Mine Project,  
11 April 2008, submitted by Amy Liu; Exhibit 13, hard copy,  
12 DFO Intervention Comments to the Nunavut Water Board on  
13 the Meadowbank Gold Mine Project, April 2008, submitted  
14 by Amy Liu; Exhibit 14, electronic, GN-DOE Review of the  
15 Meadowbank Water License Application Presentation to  
16 NWB, April 2008, submitted by Helen Yeh; Exhibit 15,  
17 hard copy, GN-DOE Review of Meadowbank Water License  
18 Application Presentation to NWB, April 2008, submitted  
19 by Helen Yeh. That's everything so far.  
20 THE CHAIR: Thank you. Is there any  
21 objection to the various exhibits?  
22 MR. DONIHEE: John Donihee for AEM,  
23 Mr. Chairman.  
24 No objection, but after you hear from other parties,  
25 we have an exhibit to tender as well.  
26 THE CHAIR: Thank you. Is there any

1 objection from any parties? Can I ask INAC to start  
2 with?  
3 MR. NADLER: Michael Nadler with INAC.  
4 No objections.  
5 THE CHAIR: Can I ask Environment  
6 Canada?  
7 MR. GROSKOPF: Environment Canada has no  
8 objections.  
9 THE CHAIR: Could I ask DFO?  
10 MS. LIU: Fisheries and Oceans has no  
11 objections.  
12 THE CHAIR: Thank you. Could I ask NTI?  
13 MS. EHALOAK: Jeannie Ehaloak, NTI. No  
14 objections.  
15 THE CHAIR: Can I ask KIA?  
16 MR. MANZO: Luis Manzo, KIA. No  
17 objection.  
18 THE CHAIR: Thank you.  
19 EXHIBIT NO. 10:  
20 ELECTRONIC COPY OF ENVIRONMENT CANADA'S  
21 INTERVENTION ON THE MEADOWBANK GOLD PROJECT,  
22 APRIL 2008, SUBMITTED BY ANNE WILSON.  
23 EXHIBIT NO. 11:  
24 HARD COPY OF ENVIRONMENT CANADA'S INTERVENTION  
25 ON THE MEADOWBANK GOLD PROJECT, APRIL 2008,  
26 SUBMITTED BY ANNE WILSON.

1 EXHIBIT NO. 12:  
2 ELECTRONIC COPY OF DFO INTERVENTION COMMENTS TO  
3 THE NUNAVUT WATER BOARD ON THE MEADOWBANK GOLD  
4 MINE PROJECT, APRIL 2008, SUBMITTED BY AMY LIU.  
5 EXHIBIT NO. 13:  
6 HARD COPY OF DFO INTERVENTION COMMENTS TO THE  
7 NUNAVUT WATER BOARD ON THE MEADOWBANK GOLD MINE  
8 PROJECT, APRIL 2008, SUBMITTED BY AMY LIU.  
9 EXHIBIT NO. 14:  
10 ELECTRONIC COPY OF GN-DOE REVIEW OF THE  
11 MEADOWBANK WATER LICENSE APPLICATION  
12 PRESENTATION TO NWB, APRIL 2008, SUBMITTED BY  
13 HELEN YEH.  
14 EXHIBIT NO. 15:  
15 HARD COPY OF GN-DOE REVIEW OF MEADOWBANK WATER  
16 LICENSE APPLICATION PRESENTATION TO NWB, APRIL  
17 2008, SUBMITTED BY HELEN YEH.  
18 THE CHAIR: Catherine?  
19 MS. EMRICK: I think there might be just  
20 a little bit of confusion. There were two additional  
21 documents that weren't read out on that exhibit list  
22 that I believe AEM would like to have filed relative to  
23 their commitment to produce two items at the -- sorry,  
24 pre-hearing conference commitments. There was two  
25 items, Number 31 and Number 37, which are the Meadowbank  
26 Gold Project Type A Water License Schedule of Plan

1 Revisions, and Meadowbank Gold Project Type A Water  
2 License Commitment Summary. I believe those two items  
3 were to be added in, and I think they were circulated  
4 earlier today, so I think those would be the next two  
5 exhibit items.

6 THE CHAIR: Thank you. Applicant?

7 MR. DONIHEE: John Donihee for AEM. Thank  
8 you, Mr. Chairman. Those were the documents that I was  
9 going to refer to, and as Board counsel has indicated,  
10 they were circulated to the other parties, and we  
11 propose to tender them in response to our earlier  
12 commitments in the pre-hearing conference at this time.

13 THE CHAIR: Thank you. Staff?

14 MR. DONIHEE: Mr. Chairman, I don't  
15 know -- think they were given an exhibit number. That's  
16 the only thing left over.

17 MS. EMRICK: I would propose that the  
18 Meadowbank Gold Project Type A Water License Schedule of  
19 Plan Revisions be Exhibit Number 16 in the hard copy and  
20 Number 17 in the electronic copy, and we'll need AEM to  
21 provide an electronic copy if they would. Actually it's  
22 just been confirmed that we have it. And then Exhibit  
23 18 would be Meadowbank Gold Project Type A Water License  
24 Commitment Summary in the hard copy and Number 19 would  
25 be in the electronic copy. And so we'll just confirm  
26 that there's no objections to that.

1 THE CHAIR: Thank you. Is there any  
2 objection to that? So I take that there's none. Thank  
3 you.  
4 EXHIBIT NO. 16:  
5 HARD COPY OF AEM MEADOWBANK GOLD PROJECT TYPE A  
6 WATER LICENSE SCHEDULE OF PLAN REVISIONS.  
7 EXHIBIT NO. 17:  
8 ELECTRONIC COPY OF AEM MEADOWBANK GOLD PROJECT  
9 TYPE A WATER LICENSE SCHEDULE OF PLAN REVISIONS.  
10 EXHIBIT NO. 18:  
11 HARD COPY OF AEM MEADOWBANK GOLD PROJECT TYPE A  
12 WATER LICENSE COMMITMENT SUMMARY.  
13 EXHIBIT NO. 19:  
14 ELECTRONIC COPY OF AEM MEADOWBANK GOLD PROJECT  
15 TYPE A WATER LICENSE COMMITMENT SUMMARY.  
16 THE CHAIR: So it's kind of warm in here  
17 in this room at the moment, maybe we should take a short  
18 break and refreshment before we continue on with NTI.  
19 We'll take a 10-minute break for now.  
20 (BRIEF ADJOURNMENT)  
21 THE CHAIR: Is Bob and Bill joining us?  
22 Okay.  
23 PRESENTATION BY NTI/KIA:  
24 We will have the NTI and KIA joint presentation now.  
25 Before we continue, carry out sworn in or affirm.  
26 JACKSON LINDELL, JEANNIE



1 EHALOAK, LUIS MANZO, STEPHEN HARTMAN, sworn:  
2 THE CHAIR: Thank you, go ahead,  
3 Intervention.  
4 MR. MANZO: Thank you, Mr. Chairman.  
5 I would take the opportunity to thank the Board for  
6 giving us the opportunity to present in front of all of  
7 you today. I also would like to thank the Board Staff  
8 for all the guidance during these hearings. I also  
9 wanted to thank the Proponent for your cooperation and  
10 understanding and timing matters to -- in some of the  
11 response, and all the residents of Baker Lake to make  
12 this happen today.  
13 Our presentation today will be carried on by Stephen  
14 Hartman, the Environmental and Water Officer from KIA  
15 Lands Department. The presentation will be -- cover the  
16 dewatering dike, the central dikes and tailing area  
17 designs, some of the concerns, acid rock drainage, metal  
18 leaching, and waste rock tailing, and water quality  
19 predictions, abandonment and closure, including some  
20 scenarios for security deposits in terms of how to hold  
21 security.  
22 I will pass now the microphone to Mr. Hartman to  
23 start our presentation. Thank you, Mr. Chairman.  
24 MR. HARTMAN: Good afternoon,  
25 Mr. Chairman. My name is -- and good afternoon, Water  
26 Board Members, Meadowbank, and other interveners. My

1 name's Steve Hartman. I'm with the Kivalliq Inuit  
2 Association.

3 The Meadowbank Project: Under the Nunavut Land  
4 Claims Agreement, Nunavut Tunngavik Incorporated holds  
5 Inuit-owned land in trust for all Inuit. NTI under the  
6 Nunavut Land Claim Agreement appoints a designated Inuit  
7 organization to administer the IOL surface parcels in  
8 each of the three regions of Nunavut. In the Kivalliq  
9 region, the Kivalliq Inuit Association is responsible  
10 for this land administration.

11 The proposed Meadowbank Project is located entirely  
12 on IOL land except for portions of the all-weather  
13 access road and the lay-down area in the Hamlet of Baker  
14 Lake. KIA's role in the Meadowbank Project relates to  
15 the following articles under the Nunavut Land Claims  
16 Agreement: Article 6, wildlife compensation; Article  
17 19, licensing and permitting; Article 20, water  
18 compensation; and Article 26, IIBA.

19 KIA and MMC have successfully negotiated an Inuit  
20 Impact and Benefits Agreement according to Article 26 of  
21 the Land Claims Agreement. KIA and MMC have  
22 successfully signed a Water Compensation Agreement  
23 according to Article 20 of the Land Claims Agreement.

24 Areas of concern identified during our review: KIA  
25 and NTI identified the following areas of concern during  
26 the pre-hearing meetings held earlier in Baker Lake.

1 Areas of concern were the dewatering dike, central dike  
2 and tailings area design, acid rock drainage, metal  
3 leaching in waste rock, tailings, and water quality  
4 predictions, and finally abandonment and closure.

5 For the dewatering dikes, central dike, and tailings  
6 area design area an independent dike safety review  
7 committee will be formed to monitor all aspects of dike  
8 performance during the construction and mine life. This  
9 committee must be able to review and comment on any  
10 deficiencies found in the design, construction material,  
11 or during mine operations. The dike safety review  
12 committee should consist of qualified technical people  
13 that are able to view broad issues associated with the  
14 dikes without being preoccupied by day-to-day  
15 operational issues. The dike safety review committee  
16 should provide quarterly reports to the stakeholders  
17 that outlines any design changes and adaptive  
18 engineering that has been implemented during the  
19 construction and mine life. This report should be  
20 provided to stakeholders within ten business days after  
21 the end of each reporting quarter. And finally, KIA  
22 retains the right to place a qualified technical person  
23 of their choosing on this committee.

24 MMC must closely monitor the thermal seepage and  
25 water quality characteristics of the mine waste storage  
26 areas. A worst-case plan must be prepared for

1 implementation of design changes and adaptive  
2 engineering if monitoring indicates contaminants are  
3 negatively impacting the environment.

4 Under abandonment and closure, KIA and NTI feel the  
5 existing abandonment and restoration plan presented by  
6 MMC is sufficient. However, MMC should provide an  
7 annual revised abandonment and restoration plan for each  
8 year of construction and operation. This updated plan  
9 would incorporate design changes and adaptive  
10 engineering that was required and implemented during  
11 construction and operations. These changes would be  
12 based on monitoring results collected over the life of  
13 the project to reflect actual site conditions.

14 KIA and NTI feel MMC has sufficiently addressed each  
15 of our concerns to date by monitoring and implementing  
16 adaptive engineering.

17 For security, the Kivalliq Inuit Association  
18 acknowledges the right of the Nunavut Water Board to  
19 require the Proponent to furnish and maintain security  
20 for the project. KIA, as the owner of Inuit lands upon  
21 which the project will be constructed, is entitled to  
22 hold security pursuant to its lease with the Proponent  
23 to protect against the risks posed by the project on  
24 IOL.

25 KIA supports earlier decisions of the Nunavut Water  
26 Board that security should not be divided between land

1 and water. KIA believes that all parties' interests  
2 would be best served if there was one security held  
3 jointly by KIA and the Minister. However, KIA is aware  
4 that Canada will not accept security which is payable  
5 jointly to the Minister and KIA.

6 If the Nunavut Water Board awards security, which is  
7 held only in the name of the Minister, KIA is exposed to  
8 risks that some part of the security may be applied for  
9 other purposes such as reclamation off IOL or  
10 compensation to third parties who are adversely affected  
11 by the project.

12 The amount of security is determined based on some  
13 of the risks posed by the project and is normally capped  
14 at the amount required for abandonment and reclamation.  
15 However, according to the Nunavut Waters and Nunavut  
16 Surface Rights Tribunal Act, the Minister may apply --  
17 the Minister may use -- sorry, the Minister may apply  
18 the security to compensate any person who is adversely  
19 affected by the project. As well, the Minister may use  
20 the security to reimburse the Crown for some of its  
21 costs.

22 As a result, the security can be depleted for things  
23 which were not contemplated when the amount of security  
24 was determined. KIA is not suggesting that Canada would  
25 improperly use the security, only that Canada's  
26 obligations are broader and its priorities may be

1 different from those of KIA. If the security is held  
2 only by the Minister and the security is depleted for  
3 other claims, KIA faces the potential of cleanup costs  
4 for which no security is available.

5 The first scenario that we came up with to address  
6 security: KIA initially proposed that security be held  
7 in a trust which would set out the rights and  
8 responsibilities of each party. This trust indenture  
9 would detail decision-making processes and other  
10 fundamental terms governing the application of security  
11 should it be needed. Rather than trying to allocate the  
12 security as between land and water in the absence of a  
13 real-life situation, where the facts would inform the  
14 partners as to how the security would be best applied,  
15 the parties would determine how to use the security  
16 based on the facts as they were known when and if the  
17 security is called upon.

18 If INAC and KIA were to agree to the terms of the  
19 trust, satisfactory evidence could be provided to the  
20 Nunavut Water Board that adequate security is in place  
21 pursuant to the trust, thus, eliminating the need of the  
22 Nunavut Water Board to order security and avoiding the  
23 problems already mentioned.

24 INAC's mine site reclamation policy for Nunavut  
25 states consideration should be given to alternate or  
26 innovative forms of security such as minor reclamation

1 trusts, provided they meet certain criteria that protect  
2 the Government's interests and objectives. Therefore,  
3 the holding of security for this project could be  
4 achieved in a way that protects the interests of both  
5 the Crown and KIA without the need for a policy change  
6 by INAC.

7 INAC advised KIA that a trust for holding security  
8 for this project is not possible at this time as it  
9 would take time to prepare this. KIA recognizes the  
10 authority of the Nunavut Water Board is to require  
11 security in a form of natures subject to such terms and  
12 conditions and in the amount prescribed or determined  
13 and according with the regulations that satisfy the  
14 Minister. Absent regulatory authority or agreement by  
15 the Minister that a trust is satisfactory, the Nunavut  
16 Water Board is unable to require that the security be  
17 held in trust. KIA is now forced to consider alternate  
18 ways in which a security could be held due to time  
19 constraints.

20 The second scenario that we had thought about: If  
21 the security is not separated between land and water and  
22 the Board is limited to ordering security which is to be  
23 held only by the Minister, then KIA must have an  
24 acceptable agreement with Canada setting out how  
25 security held by the Minister will be applied,  
26 otherwise, KIA has no assurance that the security will

1 be used to protect IOL, which is the land at greatest  
2 risk due to the location of this project. KIA has been  
3 advised by INAC that such an agreement is not possible  
4 at this time.

5 The third scenario that KIA had looked at was that  
6 if the Nunavut Water Board awards a hundred percent  
7 security to be held by the Minister, KIA would only be  
8 protected if INAC would indemnify KIA against any  
9 liabilities for the abandonment and reclamation of the  
10 project. INAC has indicated that they will not provide  
11 such an indemnity to KIA.

12 The fourth scenario that we were looking at, the  
13 Nunavut Water Board awards a hundred percent security to  
14 be held by the Minister. The Minister may then apply  
15 these funds to reclaim IOL but is not necessarily  
16 obligated for land- or water-related issues on IOL.  
17 Therefore, KIA is then forced to request its own  
18 additional security under its lease agreements. Under  
19 this arrangement, the Proponent is then forced with the  
20 possibility that it will have to provide security to  
21 both the Minister and to KIA, with the result that the  
22 project is over-secured creating financial burden on the  
23 Proponent. This is a result that nobody wants to see.

24 The fifth scenario that we looked at, KIA  
25 understanding and supporting the view that land and  
26 water security should not be separated, ask that the



1 security be divided between land and water and that the  
2 Nunavut Water Board orders water-related security only  
3 to be held by the Minister. Land-related security would  
4 then be held by KIA under its lease with the Proponent.  
5 In this scenario, KIA still faces a risk that any  
6 security held by the Minister for water may not be  
7 applied to IOL-related reclamation, but at least it  
8 would have security for land reclamation on IOL parcels.

9 So KIA's submission regarding security to the Water  
10 Board is KIA believes that the total amount of security  
11 for this project should be \$43.87 million. That's the  
12 total amount. If INAC is unable or unwilling to agree  
13 to a trust and is otherwise unable to provide assurance  
14 that KIA requires in order to protect Inuit-owned lands,  
15 it is KIA's intention to require the Proponent to  
16 provide KIA with security under its lease in the amount  
17 of \$14.79 million.

18 KIA respectfully submits that the Nunavut Water  
19 Board award the balance of security, \$29.08 million, to  
20 be held by the Minister. This represents a split of the  
21 security based on a professional analysis of land and  
22 water risks. If security is awarded this way, KIA will  
23 be satisfied with its holdings, the Minister will be  
24 sufficiently secured, and the Proponent will not be  
25 forced to provide excess security.

26 Thank you to Mr. Chairman, Nunavut Water Board

1 Staff, Meadowbank Mining Company, the community of Baker  
2 Lake, and other interveners for allowing us to present  
3 our concerns here today. Thank you.  
4 MR. MANZO: Luis Manzo, Mr. Chairman.  
5 KIA/NTI are willing to take any questions on this.  
6 THE CHAIR: Thank you. Can I ask the  
7 Applicant whether you have a question or comments?  
8 AEM QUESTIONS NTI/KIA:  
9 MR. CONNELL: Thank you, Mr. Chairman.  
10 It's Larry Connell.  
11 Just a point of clarification on the -- on this  
12 proposed first license term, the seven-year term with  
13 the total split, what's the KIA's position on the  
14 ramping-up? Are you looking at the full 14.79 and 29.8,  
15 that first license term at the end of the license term?  
16 MR. MANZO: Yes, KIA will be seeking the  
17 full amount in front.  
18 THE CHAIR: I'm sorry, can you --  
19 MR. MANZO: My apologies, Mr. Chairman.  
20 I'm sorry. Luis Manzo from KIA.  
21 Yes, KIA will be seeking the full amount of security  
22 to protect the beneficiaries of the IOL parcel.  
23 THE CHAIR: Thank you. Applicant, do  
24 you have further questions or comments?  
25 MR. CONNELL: Thank you, Mr. Chairman.  
26 No, no further questions.

1 THE CHAIR: Thank you. Does INAC have  
2 any comments, question or comments?  
3 INAC QUESTIONS NTI/KIA:  
4 MR. NADLER: It's Michael Nadler with  
5 INAC, Mr. Chair.  
6 The Department would like to make three  
7 clarifications and pose two questions to KIA if  
8 possible.  
9 THE CHAIR: Thank you. Go ahead.  
10 MR. NADLER: Thank you. Just to begin,  
11 the KIA has stated that Canada does not support a joint  
12 reclamation security. Just a point of clarification,  
13 our Department's position has been that the Minister  
14 cannot hold security jointly with another party within  
15 the framework of the Nunavut Water Board regime.  
16 The second point of clarification, with regard to  
17 scenario one, for reclamation security to be held in a  
18 trust; INAC is willing to discuss with landowners in  
19 Nunavut, such as associations in the KIA, approaches to  
20 the management of reclamation security that could fall  
21 outside of the Nunavut Water Board regime. We undertook  
22 such discussions with the KIA but were not able to  
23 develop a proposal in time for these hearings that we  
24 felt would be sufficiently detailed to give the Water  
25 Board confidence that the matter of security was being  
26 dealt with outside of the project's water license.

1 Third clarification: With regards to scenario two,  
2 involving an agreement on the use of a land and water  
3 security held by the Minister; just to clarify, INAC  
4 supports the development of such an agreement, but  
5 despite best efforts, the KIA and INAC were not able to  
6 reach consensus on what the terms of such an agreement  
7 might be. We have never advised that such an agreement  
8 would be impossible.

9 Mr. Chair, I just have two questions to pose to the  
10 KIA. The first is a supplementary question to the one  
11 posed by the Proponent. The Water Board has heard  
12 recommendations for the assessment of security based on  
13 a two-phase licensing process. Is the KIA recommending  
14 a different model for water-related security?

15 MR. MANZO: Mr. Chairman, Luis Manzo.

16 No, we're using the bulk number to assess security,  
17 and we will hold it, the security under the lease.

18 THE CHAIR: Thank you. Does INAC have a  
19 further question?

20 MR. NADLER: Just a supplementary then to  
21 that question, if I might, Mr. Chair.

22 Just to speak to the details of the KIA  
23 presentation, the KIA presentation recommends that  
24 security of 29.084 million be held by the Minister,  
25 while the total estimate for water-related security  
26 prepared by INAC for the entire post-project is 29.084

1 million. INAC is recommending an initial security  
2 payment of 7.625 million, followed by additional  
3 security up to 15.841 million up to the end of the first  
4 licensing period or the first five years of mine  
5 operations, whichever comes first. Is the KIA  
6 recommending a different model?

7 MR. MANZO: Mr. Chairman, Luis Manzo.  
8 We reviewed several times the model presented by  
9 INAC. We do agree that the model in between KIA numbers  
10 and INAC numbers and AEM numbers come to the bulk number  
11 of 43 million. This object -- calculation do not allow  
12 us to assess it because a lack of information. It's a  
13 professional discretion. The companies informed us. So  
14 to avoid conflicts, because we did agree on the bulk  
15 number, we're just splitting the number. Thank you.

16 THE CHAIR: Thank you. INAC?  
17 MR. NADLER: Thank you, Mr. Chair. I  
18 just have to ask one more supplementary related to that  
19 question because I think our questions are being  
20 misunderstood.

21 Just referring to the KIA slide and just the wording  
22 of the slide on the KIA submission on the slide titled  
23 "KIA Submission Continued": (As Read)  
24 The KIA respectively submits that the Nunavut  
25 Water Board award the balance of security,  
26 \$29,084,426, to be held by the Minister.

1       What has been proposed is a slightly different model,  
2       and that is a model whereby during the first licensing  
3       period, security would be assessed at amounts of 7.625  
4       million followed by an additional security of up to  
5       15.841 million. While we recognize that the total  
6       estimate of water-related security by the Department is  
7       the 29.084 million, we are proposing a slightly  
8       different model. Is the KIA opposed to that model?  
9       THE CHAIR:                               Thank you, INAC -- I'm  
10      sorry, KIA, go ahead?  
11      MR. HARTMAN:                            Thank you, Mr. Chairman. My  
12      name's Steve Hartman.  
13      We're not opposing INAC's model. The model for  
14      ramping-up is fine. I think to build a little bit on  
15      the earlier question from the Proponent as well, it's  
16      our intention to charge the full amount for land-related  
17      security at the beginning without a ramp-up fee or  
18      anything, but we don't object at all to INAC's model.  
19      Thank you, Mr. Chairman.  
20      THE CHAIR:                               Thank you. INAC?  
21      MR. NADLER:                            Thanks, Mr. Chairman. Thank  
22      you for the response.  
23      The second question: Is the KIA's recommendation to  
24      the Water Board the model they've described in the  
25      scenario five?  
26      THE CHAIR:                               KIA?

1 MR. MANZO: Mr. Chairman, Luis Manzo.  
2 Yes, it is.  
3 THE CHAIR: Thank you. INAC?  
4 MR. NADLER: Thank you, Mr. Chairman. We  
5 have no further comments or questions. Thank you for  
6 your patience, all of you.  
7 THE CHAIR: Thank you. Can I ask  
8 Environment Canada whether you have a question or  
9 comments?  
10 MS. WILSON: It's Anne Wilson of  
11 Environment Canada. We don't have any questions or  
12 comments.  
13 THE CHAIR: Thank you. Can I ask DFO,  
14 do you have --  
15 MS. LIU: Fisheries and Oceans do not  
16 have any comments.  
17 THE CHAIR: Thank you. Can I ask  
18 GN-DOE?  
19 MR. BADDALOO: Thank you, Mr. Chair. GN  
20 doesn't have any comments at this time.  
21 THE CHAIR: Thank you. Can I ask the  
22 public whether there's questions or comments? There's  
23 none? Okay, I take that there's none. Can I ask,  
24 Staff, is there a question or comments from Staff?  
25 MR. HOHNSTEIN: David Hohnstein here,  
26 Mr. Chairman. We have no questions.

1 THE CHAIR: Thank you. Can I ask the  
2 Board Members? Bob Hanson, do you have any question or  
3 comments?  
4 MR. HANSON: Thank you, Mr. Chair. Bob  
5 Hanson. I have no questions. Thank you, sir.  
6 THE CHAIR: Thank you. Is there any  
7 further -- was there comments from the Board Members?  
8 None, okay.  
9 MR. TATATUAPIK: We don't have any questions.  
10 THE CHAIR: Okay, thank you. Thank you,  
11 NTI and KIA. Thank you for your intervention.  
12 MR. MANZO: Thank you, Mr. Chairman.  
13 THE CHAIR: Should we take -- okay,  
14 Staff, for administration purpose, is there any?  
15 PROCEDURAL MATTERS:  
16 MR. CARR: Thank you, Mr. Chair. Don  
17 Carr.  
18 If there's no objections, I'd like to enter the  
19 following two as exhibits: Exhibit 20, electronic NTI  
20 and KIA Nunavut Water Board Technical Hearing, April  
21 2008, submitted by Steve Hartman; Exhibit 21, hard copy,  
22 NTI and KIA Nunavut Water Board Technical Hearing, April  
23 2008, submitted by Steve Hartman. And we'd also need a  
24 hard copy submitted.  
25 THE CHAIR: Thank you. Is there any  
26 objection for this Applicant? Thank you. Is there any



1 objection from any parties? So there's none. Okay,  
2 thank you.  
3 EXHIBIT NO. 20:  
4 ELECTRONIC COPY OF NTI/KIA SUBMISSION ENTITLED  
5 "NTI AND KIA NUNAVUT WATER BOARD TECHNICAL  
6 HEARING", APRIL 2008, SUBMITTED BY STEVE  
7 HARTMAN.  
8 EXHIBIT NO. 21:  
9 HARD COPY OF NTI/KIA SUBMISSION ENTITLED "NTI  
10 AND KIA NUNAVUT WATER BOARD TECHNICAL HEARING",  
11 APRIL 2008, SUBMITTED BY STEVE HARTMAN.  
12 THE CHAIR: Dionne, can you help me a  
13 bit at this moment?  
14 MS. FILIATRAULT: Thank you, Mr. Chairman. I  
15 can't see the time; I think it says 3:20. There's  
16 still, I guess, one more agenda item before -- I guess  
17 it's questions, open questions to the floor as a final  
18 opportunity to ask any final questions to -- on the  
19 project.  
20 And then there has been a request to, prior to  
21 closing remarks, that the parties be allocated an hour  
22 or so to prepare their closing remarks. So with that in  
23 mind, we probably can open the floor to the public for  
24 any final questions they may have and then break for an  
25 hour and do closing remarks.  
26 THE CHAIR: Okay, I take that. Is there

1 any further questions from any parties? There's none.  
2 Dionne.  
3 MS. FILIATRAULT: Thank you, Mr. Chairman. I  
4 think it's important to stress to members of the public  
5 that this is the final opportunity for them to make any  
6 comments or ask any questions on the project before  
7 closing remarks.  
8 THE CHAIR: Thank you. So there's none.  
9 So, Applicant, do you have any --  
10 MR. CONNELL: Thank you, Mr. Chairman. I  
11 don't have any questions at this point in time either.  
12 THE CHAIR: Okay, maybe we should take a  
13 break. Dionne?  
14 MS. FILIATRAULT: Mr. Chairman, I'd recommend  
15 an hour. That brings us back at 4:30 to enter into  
16 closing remarks.  
17 THE CHAIR: Okay. Yes, take a break for  
18 one hour. Go ahead, Dionne.  
19 MS. FILIATRAULT: I'm just wondering if you  
20 want to check with the parties to see if that's  
21 acceptable to them, Mr. Chairman.  
22 THE CHAIR: Yes, I should do that. Is  
23 there an objection to this request from the Staff or  
24 from us? Applicant?  
25 MR. CONNELL: No, I have no problem  
26 proceeding that way as well.

1 THE CHAIR: Thank you. How about from  
2 any parties? None? Okay, we'll take a one-hour break.  
3 (PROCEEDINGS ADJOURNED AT 3:21 P.M.)  
4 (PROCEEDINGS RESUMED AT 4:20 P.M.)  
5 THE CHAIR: Now, we're back into session  
6 again. Before we proceed, I'd like to ask Bob Hanson,  
7 Board Member, and Bill Tillemann, legal counsel, are you  
8 on the line?  
9 MR. HANSON: Yes, Mr. Chairman, it's Bob  
10 Hanson. I am on the line, please proceed.  
11 MR. TILLEMANN: Yes, Mr. Chairman.  
12 THE CHAIR: Thank you. Now, we're back  
13 to our agenda. I'd like to ask any parties making a  
14 closing statement. We'll start with INAC.  
15 SUPPLEMENTARY MATTERS:  
16 MR. LANDA: Ken Landa with Justice  
17 Canada. I think it might be helpful if AEM and KIA  
18 could have a few minutes before we reconvene to discuss  
19 a matter prior to our closing statements.  
20 THE CHAIR: Dionne?  
21 MS. FILIATRAULT: Do you have any indication  
22 of how long you're asking the Board for?  
23 MR. LANDA: Ken Landa, Justice Canada.  
24 Mr. Chair, I'm hope the conversation would be no more  
25 than 5 minutes, and then we should be able to reconvene.  
26 THE CHAIR: Yes, we take that, but

1 nobody can disappear.  
2 MR. LANDA: Ken Landa, Justice Canada.  
3 Thank you and everybody present for their understanding.  
4 (BRIEF ADJOURNMENT)  
5 THE CHAIR: We should get on with this.  
6 Let's proceed -- before we proceed, I would like to  
7 advise parties that Inuit Broadcasting is present and  
8 may be recording the proceeding. If any parties has  
9 concerns with this, I ask that they make such concern  
10 known before we proceed.  
11 I would also like to remind parties that since the  
12 Board cannot comment on pending matters either by  
13 confirming or denying the accuracy of others' statements  
14 to the media, the Board would appreciate it if all  
15 parties would refrain from any such comment that may  
16 imply a certain action or decision by the Board.  
17 Applicant?  
18 MR. DONIHEE: Thank you, Mr. Chairman,  
19 John Donihee on behalf of Agnico-Eagle. We'd like to  
20 thank the Board for its patience. There was an  
21 important discussion that we were trying to wrap up at  
22 the last moment, and the extra time did help.  
23 I think, Mr. Chairman, with the Board's indulgence,  
24 it would assist KIA and DIAND if Agnico-Eagle were  
25 allowed to make its closing statement first rather than  
26 last. If the Chair and the Board would be so willing,

1 we would proceed, and then the others can just follow in  
2 order, and we would have our closing statement first,  
3 and that should assist the other parties that we were  
4 having a discussion with.

5 THE CHAIR: Thank you. Is there any  
6 objection from the Board? No. Okay, good. Applicant?

7 CLOSING STATEMENT BY AEM:

8 MR. CONNELL: Thank you, Mr. Chairman.  
9 This is Larry Connell.

10 For our closing remarks, I'd like to make them in  
11 two parts. I will speak to the summary of the key  
12 issues, and then I'm going to ask Ebe Scherkus to  
13 provide an overall wrap-up on behalf of Agnico-Eagle  
14 Mines. To summarize our position, I think we need to  
15 reaffirm or restate that AEM is requesting a seven-year  
16 license term. That's two years of construction, 2008,  
17 2009, followed by the first five years of operation.

18 On the issue of security against reclamation -- this  
19 is obviously a key issue -- there seems to be consensus  
20 that the pragmatic approach is to agree to a two-stage  
21 model for security, that is set the security for the  
22 first license term with the amount increasing as the  
23 disturbance and liability increases. That provides time  
24 to evaluate the cover thickness during this period by  
25 actually measuring the performance of the test covers.  
26 And then we would re-estimate security towards the end

1 of that license term with the information and the data  
2 we have derived during this first period.

3 How the security should be split is directly an  
4 issue between the landowner, KIA, and INAC, but it does  
5 have an impact on Agnico-Eagle Mines Limited when the  
6 parties cannot agree. This results in the Proponent  
7 being asked to put up more security that is required to  
8 fully fund the liability. This isn't fair to mining  
9 companies coming to Nunavut and is a disincentive to  
10 mining proceeding on IOL land. Is there possibly  
11 another way?

12 One proposal or one possible way would be to allow  
13 the Board to continue -- not allow, but to have the  
14 Board continue to make its decision on security, as it  
15 was going to do anyways, but to allow the three parties,  
16 the KIA, INAC, and Agnico-Eagle, time to pursue the  
17 concept of an environmental security agreement. In  
18 other words, give us the time, and we come back in front  
19 of you if we are successful in reaching an agreement and  
20 ask to re-open that security issue if we are successful  
21 in finding a way to resolve this.

22 We've heard -- the KIA have indicated that this type  
23 of an agreement would be an acceptable approach, and we  
24 heard INAC say that such a method was not out of the  
25 question, just that time was needed to set up an  
26 agreeable mechanism. I leave that with the Board for

1 your consideration.

2 The other issue I wanted to talk to, the second  
3 issue I wanted to talk to was turbidity. This was a key  
4 issue that was left outstanding between our parties.  
5 AEM understands the importance of protecting the  
6 receiving environment water quality and recognizes that  
7 decreased water clarity as measured by turbidity may  
8 lead to reduced productivity in some cases. To that  
9 end, we have incorporated direct and indirect measures  
10 of primary productivity into the Aquatic Effects  
11 Monitoring Program to provide data on potential  
12 responses related to reduced water clarity or other  
13 stressors.

14 While we agree with protecting the receiving  
15 environment from turbidity-related effects, we are  
16 proposing setting an objective rather than a standard  
17 for the following reasons: The CCME's own guideline for  
18 the protection of aquatic life from increased sediments,  
19 despite being based on a broad review of studies  
20 targeting the effects to algae, zooplankton, and fish,  
21 do not include a turbidity-based guideline derived for  
22 the protection of primary productivity. The existing  
23 CCME guideline is based on total suspended solids.

24 AEM has agreed to meet TSS-based discharge standards  
25 intended to protect aquatic life. We will also strive  
26 to meet the objective of 10 NTU as proposed as a

1 standard by EC.

2 The Aquatic Environmental Monitoring Program, the  
3 monitoring under that will address primary productivity  
4 at stations closed to the proposed discharge zones.  
5 Significant changes in water clarity and/or direct or  
6 indirect indicators of primary productivity would  
7 trigger appropriate management action.  
8 Turbidity-related changes would not be long term, and  
9 conditions should improve substantially with appropriate  
10 mitigation. In summary, AEM believes that our proposal  
11 of having a turbidity objective coupled with the Aquatic  
12 Environmental Effects Monitoring Program will not result  
13 in significant impacts to the environment.

14 The last area I'd like to talk to was the proposed  
15 sewage discharge standard. The standards that were  
16 attributed to Separatech, the supplier of the sewage  
17 treatment plant, were actually taken from the recent  
18 Doris North water license. When Separatech were asked  
19 what standard their plant would achieve, they looked to  
20 recent water licenses from the Nunavut Water Board in  
21 similar circumstances and gave us that number back.

22 At the technical meeting, the parties discussed what  
23 standards should be set for the sewage treatment  
24 discharge. We all agreed or I think there was consensus  
25 at that point that what was really necessary was that we  
26 need to be protective of the discharge to the



1 environment, and so the consensus came to actually build  
2 upon the discharge from the storm water pond and to set  
3 a standard there whenever that water was being  
4 discharged to the receiving environment.

5 At that session, it was Environment Canada that  
6 proposed a 25 milligram per litre BOD and a 25 milligram  
7 per litre TSS at the discharge from the storm water pond  
8 when we were discharging, and AEM agreed with that. The  
9 proposed tighter standard that's been suggested by INAC  
10 seems to be punitive and that this standard was actually  
11 something more than was actually predicted at the -- or  
12 discussed at the technical meeting. The GN guideline  
13 that's been referenced by INAC are even tighter than the  
14 guideline that was referred by the GN in their own  
15 submission. So we're going to ask the Board to set that  
16 standard as it's been presented by AEM and as by  
17 Environment Canada.

18 That brings me to the conclusion of the technical  
19 portion, and I'd like to ask Ebe Scherkus, our company  
20 President, to do a final overall wrap-up of our closing  
21 comments, if that's agreeable.

22 THE CHAIR: Thank you. Can I have  
23 legal -- Catherine, have him sworn in.

24 EBERHARD SCHERKUS, sworn:

25 THE CHAIR: Thank you, go ahead.

26 MR. SCHERKUS: Thank you, Mr. Chairman.

1 Thank you for the opportunity to provide Agnico-Eagle's  
2 closing comments. I think my comments are more on a  
3 personal level. I'd like to thank yourself, and I'd  
4 like to thank the Board, I'd like to thank Staff, and  
5 I'd also like to thank the Government of Nunavut-DOE,  
6 INAC, DFO, NTI, KIA, and, of course, our employees and  
7 consultants as well.

8 I just looked at my calendar, and today is a very  
9 special day for Agnico-Eagle Mines. It's the exact  
10 anniversary, April 16th, 2007, where we acquired, fully  
11 acquired, the Meadowbank Project from Cumberland, so  
12 it's a very special day.

13 But I also think that a lot has happened over this  
14 past year, when I look at the Community of Baker Lake,  
15 when I look at what has been accomplished on a -- with  
16 the completion of the road, when I look at what has been  
17 accomplished on the mine site, this is a terrific  
18 project.

19 I think when Agnico-Eagle assumed ownership of this  
20 property, we made commitments that we were going to be  
21 here for a long time and that we are -- we're going to  
22 build a mine, and I believe so far, in the construction  
23 phase, we have maintained our word.

24 As I mentioned last night, I think you know there  
25 are -- we are all on the same page basically. We all  
26 want this project to go because we believe it will be

1 highly beneficial to Nunavut, be highly beneficial to  
2 the people of Nunavut, and then, of course, to the  
3 people and the citizens of Baker Lake.

4 I think over the past two days what I have observed  
5 is, perhaps on the execution and with respect to some of  
6 the execution points, I think we are all in agreement  
7 that the land, maintaining the land, maintaining the  
8 heritage, maintaining the water quality, maintaining the  
9 environment are paramount and most important to us all.  
10 So I think I can honestly say from Agnico-Eagle's point  
11 of view, we have to work on gaining your trust.

12 As I mentioned last night, words are one thing, but  
13 I also believe that actions are stronger than anything,  
14 and we have to perform and we have to continue to earn  
15 everybody's trust.

16 So I'd like to thank a few people. You know, we  
17 talked about resources as well over the past couple of  
18 days, and you know, I'd like to just visually point out  
19 some of those resources by thanking our team, and I'd  
20 like them to stand so that you can just take a look at  
21 them. So as I mention their names, please stand up and  
22 remain standing.

23 I think number one on our list, Larry Connell,  
24 Louise Grondin, our VP of the Environment, Rachel Gould,  
25 Kathryn McIvor, Stephane Robert, Ryan Vanengen. These  
26 are all of our environmental professionals, not

1 including the group that we have in our Abitibi office  
2 and Technical Services.

3 Locally, we also have Michael Haqpi; we have Martin  
4 Bergeron; we have Denis Gourde. From our consultants,  
5 we have Dan Walker; we have Terry Eldridge; we have  
6 Valerie Bertrand from Azimuth; we have Gary Mann from  
7 Garber and Associates; we have -- they're locally  
8 assisted by Hatti and Thomas Mannick. We also have our  
9 legal counsel, John Donihee. From Hatch, we don't have  
10 anyone here, but they supported us on this project.

11 So these are the people that really helped us with  
12 this particular application, and I can make a promise to  
13 you on behalf of Agnico-Eagle Mines, the Board of  
14 Directors, the CEO, Sean Boyd, and myself that they will  
15 have all the resources necessary and all the backing  
16 necessary and support to be able to carry out the  
17 commitments that we made to you over the last two days  
18 that are in our present application.

19 So having said that, thank you very much guys, and  
20 the Board, God speed in your decision, and thank you for  
21 your consideration and time.

22 THE CHAIR: Thank you. So, Applicant,  
23 are you done with this?

24 MR. CONNELL: Thank you, Mr. Chairman.  
25 Yes, I'm sorry, we're finished with our closing remarks.  
26 Thank you.

1 THE CHAIR: Thank you. Next party will  
2 be INAC's closing statement.  
3 CLOSING STATEMENT BY INAC:  
4 MR. NADLER: Thank you, Mr. Chair. It's  
5 Michael Nadler from Indian and Northern Affairs Canada.  
6 We would like to make some technical final remarks  
7 and then some general final remarks, and the microphone  
8 will be shared by myself and Jim Rogers.  
9 So I would like to begin with one technical comment,  
10 and then Jim will follow with some other technical  
11 comments, and then I'll provide a specific comment on --  
12 regarding security and then some general observations.  
13 So to begin, we acknowledge that the Proponent has  
14 agreed to undertake fixed data -- field data collection  
15 and modelling to better characterize the appropriate  
16 cover for waste rock and tailings and will prepare and  
17 submit for approval a plan for this work within one year  
18 of the license effective date.  
19 MR. ROGERS: On the water side, and in  
20 answer to -- oh, it's Jim Rogers, sorry -- and to answer  
21 a question raised by Agnico-Eagle and as suggested of  
22 Anne Wilson of Environment Canada, INAC agrees with the  
23 parameters suggested on the water quality for releases  
24 from Tear Drop Lake during construction and the storm  
25 water pond releases.  
26 Also, as is also suggested by Environment Canada,

1 INAC has made recommendations on monitoring, for the  
2 Proponent to improve confidence in their predictions and  
3 assumptions and give greater confidence to the Board and  
4 those groups supporting the Board and for regulatory  
5 reasons.

6 For regulatory monitoring, INAC would like the Board  
7 to require water quality monitoring at sites where water  
8 is withdrawn from the environment such as the water  
9 point on the Second Portage Lake; and where water is  
10 returned to the natural environment such as releases  
11 from Tear Drop Lake during the construction period;  
12 releases from the attenuation ponds later during the  
13 project; seepage from waste rock, landfills, dikes,  
14 which are not directed in either of the tailings  
15 containment area or a secondary settling pond or  
16 attenuation pond. Releases from Wally Lake should also  
17 be monitored, and they should begin now because,  
18 eventually, you will have to. In the short term,  
19 periodic monitoring until the Vault dike is built would  
20 probably be adequate.

21 These monitoring locations, we would request the  
22 Board to accept these as generic locations for now with  
23 the final locations to be determined in consultation by  
24 the Proponent and the INAC inspector. The inspector may  
25 at that time require additional regulatory sites if site  
26 conditions have been altered or differ from designs.

1 All these regulatory monitoring sites would then be  
2 provided to the Board.

3 All SNP sites should be monitored daily for flow and  
4 discharge and monthly for water quality, and the data  
5 provided quarterly during construction and the first two  
6 years of operations. All regulatory monitoring should  
7 also be provided to the INAC inspector.

8 The Proponent is requested to include the monitoring  
9 data along with their model results in the annual report  
10 to the Board, but the internal monitoring is not a  
11 regulatory requirement -- should not be a regulatory  
12 requirement; should be a good thing to do.

13 MR. NADLER: Thank you, Jim. It's  
14 Michael Nadler again for Indian and Northern Affairs  
15 Canada.

16 The Department would like to confirm that we will  
17 continue to work with the Proponent and the KIA on an  
18 option for security that falls outside of the water  
19 license process and that we are willing to work with the  
20 KIA and the Proponent to bring this option back to the  
21 Board at a later date if we are successful.

22 At this point, we'd like to emphasize the  
23 Department's support for the Meadowbank Project, and on  
24 behalf of the Department, I would like to express my  
25 respect and admiration for the work of the Water Board.  
26 I would like to thank the Chair, Water Board Members,

1 the Staff for their diligence and patience during these  
2 hearings. I'd also like to thank Bob Hanson and Bill  
3 Tilleman, who have been very diligent on the phone and  
4 that can't have been easy. I would like to express our  
5 gratitude to the interpreters and the hearing reporter  
6 for their diligence and patience as well, particularly  
7 with me as I speak often very quickly.

8 We would like to thank the Hamlet and the people of  
9 Baker Lake for their hospitality during our visit to  
10 their lovely town. We'd also like to recognize the  
11 people of Chesterfield Inlet for their contributions  
12 during this hearing.

13 We'd like to thank our cousins in the Federal  
14 family, our colleagues in the Government of Nunavut, the  
15 KIA, and the Proponent for their collaboration during  
16 this hearing and before the hearings.

17 I, myself, as the Regional Director General for the  
18 Department would like to recognize Jim Rogers, Jillian  
19 Martin, Ken Landa from Justice Canada, our consultants  
20 from EBA and John Brodie Consulting for their help  
21 during these hearings, plus the larger team working in  
22 Iqaluit, working in Rankin Inlet, and working in  
23 Kugluktuk, who all contributed to this project.

24 Mr. Chair, those are our final remarks. Thank you  
25 for your patience and time.

26 THE CHAIR: Thank you. The next party



1 will be Environment Canada.  
2 CLOSING STATEMENT BY EC:  
3 MS. WILSON: Am I good to go here? Okay,  
4 it's Anne Wilson with Environment Canada.  
5 Environment Canada would like to thank the Nunavut  
6 Water Board for the opportunity to present our concerns  
7 with AEM's application for this Class A water license  
8 for the Meadowbank Gold Mine Project.  
9 EC has provided suggestions in our intervention, a  
10 document for the Board to consider in the development of  
11 this water license. As outlined in our written  
12 intervention and summarized in the presentation earlier,  
13 we have presented a broad range of concerns, and  
14 substantially these have been addressed by the Proponent  
15 in discussions with their technical experts.  
16 I'll just outline some of the issues raised and  
17 addressed. These include agreement on integrating  
18 monitoring plans and developing a groundwater monitoring  
19 plan for implementation this upcoming summer; use of  
20 monitoring results for adaptive management in the areas  
21 of sites water quality; periodically updating predictive  
22 models with site data; and planning for closure  
23 monitoring.  
24 Another issue addressed is the use of monitoring  
25 results and the determination of waste rock cover  
26 thickness in mine rock segregation and for till

1 management. They have agreed to development of an  
2 ammonia management plan. Also addressed is being the  
3 use of appropriate incineration technology to comply  
4 with the Canada-wide standards for dioxins and furans  
5 along with stack testing. Issues around landfarm  
6 management, contingency planning, and closure planning  
7 have also been addressed.

8 We believe we have substantial agreement from the  
9 Proponent in the area of effluent quality criteria with  
10 the issues of chloride limits and the use of turbidity  
11 as a regulated parameter to be determined by the Board.

12 With respect to turbidity, EC notes, as we just  
13 heard, that the Proponent has expressed concern with  
14 using the number 10 NTU's as a regulated parameter as a  
15 limit, and we acknowledge there is some uncertainty with  
16 how this plume will behave and what operational limits  
17 that might impose upon their discharges. EC does prefer  
18 to have this as a regulated parameter, but we're open to  
19 a somewhat higher limit. With Diavik, they used 15 as  
20 their maximum. Possibly we could use 15 as the maximum  
21 on average and no higher.

22 Another option would be on an interim basis, i.e.,  
23 for the first dewatering activity, to have the NTU's as  
24 a soft limit or soft threshold or objective as requested  
25 by the company. In this case, it would have to result  
26 in specific actions to prevent further releases above

1       that limit and concurrent evaluation of receiving  
2       environment effects to address the uncertainty.  
3       Appreciating that the public record is closing very  
4       shortly -- as soon as this hearing is over -- we'll have  
5       to leave it at that for the Board to determine.

6       Just a couple other points. EC does support the  
7       proposed license term of seven years, and we note that  
8       this file is a priority for us, and we will remain  
9       available to provide ongoing support to the Board in the  
10      form of expert advice on areas relating to water  
11      quality, toxicity testing, aquatic effects monitoring,  
12      contingency planning, and review of waste management and  
13      other plans.

14      EC would like to note that the hearings and the  
15      steps leading up to them have been very constructive and  
16      have resulted in substantial resolution of issues  
17      identified by us. We have appreciated the Proponent's  
18      initiative in addressing issues, and I would like to  
19      comment on Larry's 5:20 a.m. e-mail this morning on  
20      incineration, such issues that we've raised in the  
21      course of this process.

22      I would also like to highly commend the Board on a  
23      well-run hearing, particularly for the outstanding  
24      hospitality in the community. On a personal note, I  
25      would like to thank the Elders for their prayers, and I  
26      wish for safe travel for all of us. Thank you.

1 THE CHAIR: Thank you. Next party would  
2 be DFO make a closing statement.  
3 CLOSING STATEMENT BY DFO:  
4 MS. LIU: Mr. Chair, it's Amy Liu from  
5 Fisheries and Oceans. DFO would like to thank the Board  
6 and the Staff for all their hard work and for the  
7 opportunity to come to Baker Lake to discuss our review  
8 for the Meadowbank Gold Project. We would also like to  
9 thank Agnico-Eagle Mines and their consultants for  
10 working with DFO to substantially address our issues  
11 prior to the hearing.  
12 DFO has carefully considered all the information  
13 that Agnico-Eagle Mines has presented in their  
14 submission to the Water Board, as well as all the  
15 information presented by AEM, the public, and other  
16 interveners during the course of the hearings for the  
17 past couple of days.  
18 In our intervention, DFO made a number of  
19 recommendations to the Board, and some were addressed,  
20 but the ones we would like to reiterate relating to this  
21 Type A water license include water management,  
22 specifically the submission of the final dewatering and  
23 flooding plans to ensure water flow is maintained in  
24 downstream locations; and monitoring, specifically the  
25 Aquatic Effects Management Program, that the core  
26 monitoring programs and targeted studies outlined be

1 provided in detail; and that party comments be  
2 integrated and consolidated into the AEMP for review and  
3 approval; and that the dike construction and dewatering  
4 activities monitoring plan incorporate party comments  
5 for review and approval.

6 So while these items are still outstanding,  
7 Agnico-Eagle Mines has committed to providing them, and  
8 it is anticipated that with the inclusion of this  
9 information and with the no-net-loss plan, it will  
10 adequately address potential harmful effects to fish and  
11 fish habitat. So we trust that our comments and  
12 recommendations will be helpful to the Board in their  
13 deliberations.

14 In closing, DFO would like to thank the participants  
15 of the Kivalliq communities for offering their knowledge  
16 about and views regarding this project, and DFO would  
17 also like to give special mention to the community of  
18 Baker Lake for their hospitality and support during  
19 these proceedings. Thank you.

20 THE CHAIR: Thank you, DFO. Next party,  
21 GN-DOE make a closing statement.

22 CLOSING STATEMENT BY GN-DOE:

23 MR. BADDALOO: Thank you, Mr. Chair. My  
24 name is Earle Baddaloo.

25 In summary, this water license application submitted  
26 by AEM describes measures to mitigate and manage

1 potential impacts resulting from the Meadowbank Project.  
2 The application generally provides satisfactory  
3 mitigation and management procedures for all waste  
4 streams and hazardous materials. The Government of  
5 Nunavut-Department of Environment supports this license  
6 application moving forward if the concerns and  
7 recommendations discussed in our detailed intervention  
8 and summarized in our earlier presentations are  
9 addressed.

10 In regard to the marshalling area facilities, the  
11 Government of Nunavut-Department of Community and  
12 Government Services will continue to work with  
13 Agnico-Eagle Mines Limited to move forward on the issue  
14 regarding financial security bonding.

15 Government of Nunavut-Department of Environment  
16 would like to express our sincere thanks and  
17 appreciation to the Nunavut Water Board, all of its  
18 Staff, Mr. Hanson and Mr. Tilleman on the telephone, for  
19 allowing us the opportunity to present our intervention  
20 at this public hearing here in Baker Lake regarding  
21 Meadowbank Gold Mine Project's application for water  
22 license, and we look forward to a continued  
23 high-quality, working relationship with all parties.

24 We thank the Proponent for their patience and also  
25 their responses, which were invaluable in assisting and  
26 clarifying many issues. We would also like to thank our

1 fellow interveners, Kivalliq Inuit Association, Nunavut  
2 Tunngavik Incorporated, Department of Fisheries and  
3 Oceans, Environment Canada, Indian and Northern Affairs  
4 Canada, and all of the individuals from the communities  
5 for expressing their concerns and for providing input  
6 into issues that we hope will contribute to a project  
7 that will result in an excellent environmental track  
8 record.

9 I would also like to express my thanks to my staff  
10 and the support of my Department staff in particular,  
11 Helen and Mike Atkinson, who has left us now, for their  
12 continued help and for their hard work and cooperation  
13 towards addressing this license.

14 DOE would like again to express a sincere thanks to  
15 the host, to the Hamlet of Baker Lake for allowing us  
16 the opportunity to visit their community and to carry  
17 out this activity in such a beautiful setting. Thank  
18 you, Mr. Chair.

19 THE CHAIR: Thank you, GN-DOE. Before  
20 we proceed with the next party, can I have Staff express  
21 NTI and KIA? Okay, continue on. Okay, can I have NTI  
22 make a closing statement? And KIA, probably you go...

23 CLOSING STATEMENT BY NTI/KIA:

24 MR. MANZO: Mr. Chairman, Luis Manzo.  
25 The member of NTI will be doing the closing remarks for  
26 the joint submission. Thank you.

1 MS. EHALOAK: Thank you, Mr. Chair.  
2 Jeannie Ehaloak.  
3 Nunavut Tunngavik Incorporated and the Kivalliq  
4 Inuit Association would like to take this opportunity to  
5 thank the Nunavut Water Board, Agnico-Eagle, Government  
6 of Canada, DFO, Environment Canada, Nunavut Government,  
7 and especially community members from Baker Lake and  
8 Chesterfield Inlet for being here with us today. We  
9 would also like to acknowledge the support of the  
10 communities in the Kivalliq region.  
11 For Nunavut, a major milestone was reached in 1993  
12 with the signing of the Nunavut Land Claims Agreement.  
13 The Land Claims Agreement provided the Inuit with unique  
14 opportunities. First, the Land Claim Agreement provided  
15 the Inuit with the right to exclusive use and occupation  
16 of the land. Second, the Land Claim Agreement provided  
17 the Inuit with the right to choose what uses land can be  
18 used for. Third, the land -- that lands held by the  
19 Inuit could provide economic opportunity.  
20 The land is the heart of the Inuit culture. It  
21 provides food, clothing, and a place of well-being. It  
22 provides families with a safe and healthy environment  
23 that has supported our ancestors for thousands of years.  
24 We envision Nunavutmiut living healthy, sustainable  
25 livelihoods that are based on jobs in the wage-based  
26 economy and our traditional ways of life.



1           As we celebrate Nunavut's 15th year as Canada's  
2 newest territory this spring as an emerging region in  
3 Canada, we are excited about exploring avenues for  
4 long-term, sustainable economic development. We are a  
5 vast geographical area with a small population, and we  
6 are just beginning to learn the potential natural  
7 resources in our Arctic environment.

8           That is not to imply that the Kivalliq region has  
9 not had a long history of exploration and mining.  
10 Historically in this region, we have successfully mined  
11 for nickel and gold. It is up to us to embrace the  
12 opportunities that are before us. It is our  
13 responsibility to build a stable economy for our  
14 children and our children's children to ensure that  
15 Nunavut will always be our land. It is equally  
16 important that we protect and preserve the traditional  
17 ways of our ancestors so that those who follow us will  
18 never forget where they came from. Today in the  
19 Kivalliq, we are witnessing the progression of these two  
20 goals as we move steadily towards the reality of  
21 Meadowbank Gold Mine.

22           It was in 2003, Cumberland Resources Limited  
23 presented a project proposal to KIA, which we forwarded  
24 to NIRB, the Nunavut Impact Review Board, for the  
25 Meadowbank Gold Project located north of Baker Lake. A  
26 Part 5 review was completed in 2006 with a Project

1 Certificate issued in December 2006. After successfully  
2 completing the NIRB process, the Nunavut Water Board  
3 provided Cumberland Resources with guidelines in March  
4 2007 in accordance with Section 48(3) of the Act and  
5 Article 13.81 of the Nunavut Land Claims Agreement.

6 On August 1, 2007, Agnico-Eagle Mines Limited  
7 amalgamated with Cumberland Resources and Meadowbank  
8 Mining Corporation. The Nunavut Water Board  
9 acknowledged receipt of this revised application form  
10 from AEM on September 24th, 2007.

11 The project has an expectant life of 12 years and  
12 could provide employment for up to 370 people and  
13 represent approximately \$30 million in local wages, of  
14 which the Nunavutmiut stand to benefit from all aspects:  
15 Jobs, training, contracting, and additional indirect  
16 benefits relating to the overall economic growth. The  
17 benefits will be felt throughout the entire region,  
18 Nunavut and Canada.

19 It is at this point that we must decide if the  
20 project submitted in 2003 with all the additional work  
21 that has been done is ready to move forward. We have  
22 made our submission today to you concerning the holding  
23 of security, and we understand the Board will make its  
24 decision based on what was presented at this hearing.  
25 However, we remain hopeful that an alternative way of  
26 holding security might be reached and wish to continue

1 to explore with INAC and AEM the possibility of a trust  
2 or other vehicle for holding security, and we would  
3 support a review of security in one year.

4 KIA and NTI, including technical staff and  
5 professional consultants, are satisfied for the purposes  
6 of the review of this water license. Also, KIA and NTI  
7 is pleased to be working with AEM and believe this  
8 project can be developed in a way that balances both  
9 environmental impacts and economic benefits. We hope  
10 the Nunavut Water Board and other Government agencies  
11 understand the importance of moving this project forward  
12 in a responsible, timely manner.

13 In closing, I would like to wish everyone safe  
14 travels. Thank you.

15 THE CHAIR: Thank you.

16 MR. MANZO: Luis Manzo. Thank you,  
17 Mr. Chairman.

18 THE CHAIR: Thank you. I also like to  
19 call Chesterfield Inlet representative, Brenda Putulik,  
20 to make a closing statement.

21 CLOSING STATEMENT BY CHESTERFIELD INLET REPRESENTATIVES:

22 MR. MIMIALIK: Thank you, Mr. Chair.

23 THE CHAIR: Please state your name  
24 first.

25 MR. MIMIALIK: Thank you, Mr. Chair. My  
26 name is Leo Mimialik from Chesterfield Inlet. I work

1 for KIA for the committee, and I also work for the  
2 Hamlet to do the -- to do with the explorations, and I'm  
3 also a member of the various projects in our community.

4 I would like to make another statement in regards to  
5 what I have heard from AEM. Thank you for -- I saw the  
6 site, and they're in good condition, and I saw the site  
7 myself. They're well-planned. The site looks good. I  
8 saw it through my own eyes, and I don't see any problem  
9 there. They're well-organized. That's the information  
10 I have for you, and I'm going to report this back to our  
11 Hamlet in our community.

12 And I thank you for giving me information. Thank  
13 you to INAC, Nunavut Water Board, and their Staff, AEM  
14 Staff. I understand clearly what was said, and there  
15 are many Inuit people working at the site. I was very  
16 pleased to see the number of Inuit and also nonInuit,  
17 Kabloona, and they fed us also. They fed us so well, my  
18 wife and I.

19 And I would like to make it, stress to the point, I  
20 would like to invite you to our community, to  
21 Chesterfield Inlet, so we can show you some pictures,  
22 the photograph that we have from in those days then, and  
23 we have some histories to tell you. And also our  
24 waters, I would like you to take a look at our waters.  
25 And I understand that you have been to our community  
26 many times. I've seen you many times in our community,

1 but we would like to continue consulting with you  
2 closely, people from Meadowbank, and I'm sure these two  
3 here sitting with me from Chesterfield Inlet, I'm sure  
4 they have more comments to say. This is all I have to  
5 say for now. Thank you.

6 MS. MIMIALIK: My name is Leonie Mimialik  
7 from Chesterfield Inlet. I am representing HTO; I'm  
8 Chair to HTO. I also work for the nursing station  
9 health centre. Thank you for inviting me to the site.  
10 I visited the site, and I ate so well while I was there,  
11 the food was good, but I did not have any marrow from  
12 the caribou, which is delicacy. Thank you for inviting  
13 me to you all. And also our Hunters and Trappers  
14 Organization in our community, I'm going to give them  
15 feedback that they will be wanting to see you or meet  
16 with you face to face, and we like to continue to  
17 protect our wildlife habitat.

18 And thank you for everything, and God bless you all  
19 and all of us, and thank you for having me. Thank you.

20 THE CHAIR: Quyannamiik. Brenda?

21 MS. PUTULIK: Thank you, Mr. Chair. Can  
22 you hear me okay? My name is Brenda Putulik from  
23 Chesterfield Inlet. I'll talk Inuktitut and sometimes  
24 in English. I'm just letting you know ahead of time.

25 As a closing statement, as a representative of  
26 Chesterfield Inlet, I've asked everyone to learn from

1 the Dew Line sites, Nanisivik mine, Rankin Inlet mine,  
2 learn from their mistakes.

3 It was said that we are overlooking the gold mine,  
4 the AEM within the Baker Lake area, and I say there is  
5 no much thing as overlooking anything when it involves  
6 our children and our children's future. It is because  
7 of our children, that is why we are here; we are paving  
8 the way and opening doors for our children. I had heard  
9 or it was said maintaining the land, culture, and  
10 heritage.

11 I feel that there is one item that is left unsaid,  
12 and that is what will be for a human, humanity. We are  
13 making sure that the land, the animals, the water, the  
14 sea is taken care of. One thing that I feel that is  
15 being overlooked now is humanity. Yes, employment is  
16 the reason why we are here. I asked let this be that --  
17 not only employment is given, but we are the ones that  
18 cares for our well-being of people of Nunavut that cares  
19 for the land, Inuit culture, and our heritage. Don't  
20 overlook humanity. There will always be pros and cons  
21 to everything, regardless of what it is. Don't ever  
22 lose yourself. That's the only one item that I feel  
23 right now that is being overlooked. It's been humanity;  
24 it's to do with our culture. That's all I have to say.

25 CLOSING STATEMENT BY NWB BOARD:

26 THE CHAIR: Quyanamiik. Now, is the

1 Board and -- the Board's closing remarks. The Board  
2 would like to thank the parties including especially the  
3 Applicant, the Staff, interveners; interpreters, Mary  
4 Hunt, Rhoda Perkison, and Ben Kogvik; court reporter,  
5 Karoline Schumann; and PIDO, Trevor Bourque; local page,  
6 Donald Nasauyaituk and Cherie Nasauyaituk; all the  
7 community members and the Elders from Baker Lake and  
8 Chesterfield Inlet for their valued participation in  
9 this hearing. Thanks also to the Hamlet of Baker Lake  
10 for their outstanding hospitality and patience with the  
11 Board.

12 As we are at the closing of the hearing, I will make  
13 some comment to let parties know what happens next.

14 First, I now close the hearing record for the  
15 application for Type A water license submitted by  
16 Agnico-Eagle Mines Limited. What this means is no  
17 additional information will be accepted on this  
18 application prior to the Board making final decision.  
19 The Board will make its decision on the application for  
20 amendment in 30 to 60 days.

21 Have a good evening, safe travel home to visitors to  
22 Baker Lake. This hearing is now adjourned in accordance  
23 with these instructions. I will call Tommy once again  
24 to say a closing prayer.

25 (CLOSING PRAYER)

26 (WHICH WAS ALL THE EVIDENCE TAKEN AT 5:52 P.M.)

1 I, Karoline Schumann, Court Reporter, hereby certify  
2 that I attended the above Hearing and took faithful and  
3 accurate shorthand notes, and the foregoing is a true  
4 and accurate transcript of my shorthand notes to the  
5 best of my skill and ability.

6 Dated at the City of Calgary, Province of Alberta,  
7 this 24th day of April, 2008.  
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10 \_\_\_\_\_  
11 Karoline Schumann, CSR(A)  
12 Official Court Reporter  
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