1

2 MACKENZIE VALLEY ENVIRONMENTAL

3 IMPACT AND REVIEW BOARD

4

5 PRAIRIE CREEK MINE

6 ENVIRONMENTAL ASSESSMENT PUBLIC HEARING

7

8

9

10 Mackenzie Valley Review Board Staff:

11 Richard Edjericon Chairperson

12 Richard Mercredi Member

13 Danny Bayha Member

14 Peter Bannon Member

15 Rachel Crapeau Member

16 James Wah-Shee Member

17 Darryl Bohnet Member

18 Percy Hardisty Member

19

20 HELD AT:

21

22 Fort Simpson, NT

23 June 24th, 2011

24 Day 3 of 3

25

1 APPEARANCES

2	Martin Haefele	) MVEIRB staff
3	Chuck Hubert	)
4	Paul Mercredi	)
5	Jessica Simpson	)
6	John Donihee	)Board counsel
7		
8	David Harpley	) For Canadian Zinc
9	Alan Taylor	) Corporation
10	Chris Reeves	)
11	Wilbert Antoine	)
12	Kevin O'Callaghan	)
13	Christoph Wels	)
14	Chris Schmidt	)
15	John Wilcockson	)
16	Bill Rozeboom	)
17	David Caughill	)
18	Shannon Shaw	)
19	Byard MacLean	)
20		
21	Teresa Joudrie	) AANDC
22	Robert Jenkins	)
23	Nathen Richea	)
24	Laurie Osmum	)
25	Barry Zajdlik	)

1 APPEARANCES (CONT'D)

2

3 Paul Green) AANDC

4 John Brodie)

5 Ramond Sladic)

6 Karin Taylor) Counsel

7

8 Michael Suitor) Parks Canada

9 Katherine Cumming)

10 Jamie VanGulck)

11

12 Peter Redvers) Naha Dehe Dene Band

13

14 Jennifer Potten) MVLWB

15

16 Gavin More) GNWT

17 Murray Cutten)

18 Kevin Morrison)

19 Aileen Stevens)

20

21 Kate Witherly) NPMO

22 Matt Spence)

23

24 Dennis Nelner) LKFN

25 Jonas Antoine)

1 APPEARANCES (cont'd)

2	Fons Schellekens	) Natural Resources
3	Stephen Gooderham	) Canada
4		
5	Grand Chief Sam Gargan	) Dehcho First Nation
6	Joe Acorn	)
7	Kirby Groat	)
8		
9	Sarah Olivier	) Department of
10	Pete Cott	) Fisheries & Oceans
11	Lorraine Sawdon	)
12	Beverly Ross	)
13		
14	Chief Jim Antoine	) Liidlii Kue First
15	Lorayne Moses	) Nation
16	Cheryl Cli	)
17	Judy Sabourin	)
18		
19	Jane Fitzgerald	) Environment Canada
20	Anne Wilson	)
21		
22	Michael Mageean	) ITI, GNWT
23	Wilson Dimslake	)
24		
25		

1 APPEARANCES (cont'd)

2

3 Jonathan Tsebo) DCA Nahanni National

4 Eric Betsaka) Park

5

6 Chris Aguirre) Transport Canada

7

8 Allan Bonnetrouge) DRC

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

TABLE OF CONTENTS

1 List of Undertakings

1 --- Upon commencing at 8:44 a.m.
2
3 THE CHAIRPERSON: Good morning. I'd like
4 to call this public hearing back to order. It's almost a
5 quarter to 9:00 now, so -- before we start again, I just
6 want to start off this meeting with an opening prayer
7 again. And I'm going to ask one of my Board members, Mr.
8 James Wah-Shee from the Tlicho Region, to do the opening
9 prayer. Mr. Wah-Shee.
10
11 (OPENING PRAYER)
12
13 THE CHAIRPERSON: Thank you, Mr. Wah-
14 Shee, for your opening prayer.
15 We still -- we still have a lot of
16 presentations to go through today. And what I was going
17 to suggest maybe is we'll continue on with the
18 presentation this morning, and I was going to perhaps
19 move back the INAC presentation to sometime this
20 afternoon sometime.
21 And it gives us an opportunity to get
22 through these other presentations this morning. And also
23 it helps the presenters to continue to look at ways to
24 address their -- some of the concerns they have and still
25 get the end result through this public hearing process.

1 So I just want to mention that.
2 So this morning we're going to continue
3 on. I want to go to the Government of the Northwest
4 Territories and -- with your presentation, so we could
5 proceed.
6
7 PRESENTATION BY GNWT:
8 MR. GAVIN MORE: Thank you, Mr. Chairman.
9 Good morning, my name is Gavin More. I'm the manager of
10 environmental assessment and monitoring with the
11 Government of the Northwest Territories.
12 I am accompanied today on my right by Dr.
13 Nic Larter, Dehcho regional biologist for Environment and
14 Natural Resources. And to his right, Murray Cutten,
15 manager, resource development impacts of Municipal and
16 Community Affairs.
17 I have some very brief highlights from our
18 technical reports to cover, including archeology,
19 wildlife and social economics. Should you have any
20 questions at the end, I or my co-workers will try to
21 respond.
22 Before proceeding with our highlights, it
23 is worth noting the unique circumstances of the project
24 and its activities. The mine and processing facilities,
25 part of the access route, and one (1) transfer station

are located in the Northwest Territories. However, 77 kilometres of the proposed winter road and one (1) transfer station occur within Nahanni National Park Reserve. The proponent will also use public highways, including the Nahanni Butte winter access and the Liard Highway 7 south of Fort Nelson.

The transboundary nature of this project mean it will have different regulators, including the Mackenzie Valley Land and Water Board as well as Parks Canada. There is a potential for the proponent to be required to meet different management approaches and/or legislation requirements. The commitments of the proponent and any additional recommended measures of this Review Board are key to ensuring conflicting requirements are minimized.

The proponent has committed to conducting an archaeological impact assessment for the realignments of the winter road access. A recommended modification to their May 6th, 2011, commitment is largely to provide flexibility in the timing of the assessment. I won't read the specific modification we have made because I understand that the proponent has rediscussed the commitment with our Heritage Centre and reached an agreement on some additional changes to the commitment wording.

1 However, this commitment is important as
2 the Prince of Wales Northern Heritage Centre regulates
3 the archaeologist while Mackenzie Valley Land and Water
4 Board regulates the proponent. This commitment provides
5 the avenue for the proponent to work with the Heritage
6 Centre prior to the actual realignment construction.
7 Therefore, this commitment or the commitment as modified
8 should be included in the report of environmental
9 assessment.
10 Canadian Zinc has provided a draft
11 wildlife management plan and committed to finalizing the
12 plan in the regulatory phase. The wildlife management
13 plan will provide an important communication link between
14 the proponent, employees, contractors, communities,
15 resource management agencies, and regulators. The plan
16 will set up clear expectations, responsibilities,
17 policies and procedures with respect to wildlife
18 management.
19 Importantly, the plan will ensure CZN
20 complies with legislation, regulations, and terms and
21 conditions of approvals, and also will ensure the Company
22 adjusts to new wildlife issues or future national or
23 territorial recovery strategies, management plans that
24 are developed over time. It is worth noting that the
25 Dehcho caribou working group will also provide advice to

1 the GNWT for Boreal caribou, Woodland caribou as
2 necessary.
3 In 2005, the GNWT recommended CZN prepare
4 a wildlife mitigation and monitoring plan. CZN has
5 committed a draft plan as part of its developer's
6 assessment report in 2011. CZN has also laid out a
7 significant number of more detailed policy and procedures
8 to be included in other plans. The wildlife plan will
9 cover wildlife species under the management
10 responsibility of Environment Canada, Parks Canada, and
11 the Government of Northwest Territories.
12 The GNWT agrees the wildlife plan and
13 related plans will ensure mechanisms for a variety of
14 regulators and wildlife management agencies to monitor
15 and mitigate impact on wildlife species, including
16 species at risk and culturally significant species.
17 Besides a wildlife management plan, CZN will also update
18 its flight impact management plan, its waste management
19 plan, and health and safety plan. These are all
20 mechanisms to implement various wildlife related
21 commitments.
22 The Government of Northwest Territories
23 recognizes the importance of CZN's commitment to produce
24 or update these plans and to review and modify them over
25 time. The government also recognizes the importance of

1 CZN to support a technical advisory committee. The
2 Department of Environment and Natural Resources will
3 participate as necessary.
4 Canadian Zinc provided a substantial list
5 of wildlife commitments in its submission on May 6th,
6 2011. The GNWT agrees the wildlife plan and related
7 plans will ensure mechanisms for a variety of regulators
8 and wildlife management agencies to monitor and mitigate
9 impact on wildlife species.
10 The GNWT is aware that other parties
11 provided additional mitigation measures in their
12 technical reports. The GNWT also noted some slight
13 adjustments in our technical report to the May 6, 2011,
14 commitments table.
15 To demonstrate the advantages of the
16 wildlife plan, we note several other parties, including
17 notably Environment Canada and Parks Canada, have
18 additional mitigation recommendations that can be
19 captured as commitments by the proponent, and
20 incorporated into its wildlife plan. This avoids the
21 need for the Board to provide such mitigations as
22 measures in the report of environmental assessment.
23 To adequately capture all mitigation
24 measures, and to include appropriate wording, the GNWT
25 recommends CZN file a final commitments table after the

1 public hearings that includes any additional commitments
2 included in technical reports submitted by parties, or
3 that may arise during the public hearing, as well as
4 edits to commitments filed on May 6th, 2011. The GNWT
5 recommends the final commitments table be included in the
6 report of environmental assessment to minimize potential
7 conflicts between the regulators responsible for project
8 authorizations.
9 Canadian Zinc stated its socio-economic
10 mitigation strategy was developed with a goal of
11 maximizing local participation and benefits, while
12 mitigating or reducing any negative impacts from
13 participation in the project. This is a laudable
14 objective that the Government of Northwest Territories
15 fully supports. The developer's assessment report stated
16 the project's proponent has been working in the study
17 area for approximately fifteen (15) years.
18 However, past practice in exploration and
19 pre mine development may not be directly applicable to
20 the challenges of an operating mine. The Prairie Creek
21 mine is a new type of endeavour for Canadian Zinc, and
22 for this part of the Northwest Territories. With regard
23 to the socio-economic assessment, the Government of
24 Northwest Territories, therefore, concludes the predicted
25 impacts are uncertain.

1 The Prairie Creek mine represents the
2 development of a significant non-renewable resource for
3 this region of the Mackenzie Valley. The proposed
4 mitigation measures are untested in this region and with
5 this developer. There is some inconsistency in the
6 various descriptions of the commitments and planned
7 mitigation measures. Lastly, the mitigation measures may
8 need to be adapted if the mine is to be carried out in
9 the way described.
10 For these reasons, the government
11 recommends that a socio-economic follow-up program in the
12 form of a socio-economic agreement between the developer
13 and the Government of Northwest Territories be a
14 condition of the project approval.
15 Thank you very much. That concludes our
16 presentation.
17
18 QUESTION PERIOD:
19 THE CHAIRPERSON: Thank you. Thank you
20 for your presentation. I want to go to the questions in
21 that order. I just want to -- there's a roaming mic
22 around. I'd like to go to Indian and Northern Affairs to
23 -- if there's any questions in regards to the GNWT
24 presentation. Please state your name, as well.
25 MS. TERESA JOUDRIE: Teresa Joudrie for

1 Aboriginal Affairs and Northern Development. We have no
2 questions.
3 THE CHAIRPERSON: Thank you. I want to
4 go to Fisheries and Oceans Canada if there's any
5 questions in regards to Government of Northwest
6 Territories' presentation.
7 MS. BEVERLEY ROSS: Bev Ross, Fisheries
8 and Oceans Canada, and no questions.
9 THE CHAIRPERSON: Thank you. I don't
10 know if there's anybody here from Nahan -- Nahanni Butte
11 Dene Band. Yes, there -- is there any questions in
12 regards to the Government of Northwest Territories'
13 presentation?
14 MR. PETER REDVERS: Peter Redvers,
15 representing the Naha Dehe Dene Band. Just one (1)
16 question.
17 The -- in the finalization of the wildlife
18 management plan, the -- Parks Canada has made some
19 recommendations that would add another layer to that,
20 which is more active, and sort of movement, habitation
21 monitoring as opposed to the observational monitoring.
22 If that was built in, would -- I guess two
23 (2) parts to it. Would the GNWT be supporting that, and
24 would the GNWT incorporate that into the portion of the
25 road, the -- and as well as the mine site that would be

1 under your jurisdiction? So would there be one (1) plan
2 or is there the possibility that there might be a --
3 slightly different plans for the different areas of
4 jurisdiction?
5 MR. GAVIN MORE: Gavin More, Government
6 of Northwest Territories. My vision is that there'll be
7 one (1) plan. There will likely need to be differences
8 in the plan for some -- for the mine site. There'll be
9 some differences for the Parks Canada based on
10 differences in legislation.
11 And I'll -- I'll cite, for example, in the
12 NW -- current NWT Wildlife Act there are regulations
13 related to what one needs to do in relation to grizzly
14 bears. We have permits for what we call harassment of
15 animals say off an airstrip. So we -- we -- we actually
16 believe there will be some site specific differences
17 based on legislation, but also based on the landscape and
18 the species. And I would really emphasize that there's a
19 -- a major change from the mine site through the National
20 Park as it comes back out on to -- to NWT land.
21 And the species change from basically
22 mountain caribou -- in terms of key species of concern
23 from Mountain caribou through to Boreal caribou and Wood
24 bison, so the Wood bison management and responses to --
25 to minimize impact on those would need to be different

1 because the -- the behaviour of the species is quite
2 different.
3 So I -- I -- I would suggest that the --
4 the -- the benefit of the plan is to be able to
5 accommodate those differences so that the Company and the
6 contractors are working with a fairly set agreement on --
7 on what might almost be standard operating procedures,
8 but that they also understand the differences based on
9 the piece of land or activity that -- that they're
10 undertaking.
11 To have multiple plans I think would just
12 cause confusion. It's easier to try to come up with a --
13 a comprehensive and mutually agreeable plan that the
14 Company will operate under.
15 THE CHAIRPERSON: Thank you. Mr.
16 Redvers, does that help answer your question?
17 MR. PETER REDVERS: Peter Redvers. Just
18 one (1) follow-up, I guess, to that, for clarity. Are
19 the GNW -- is the GNWT and Parks Canada and Canadian Zinc
20 then working collectively, or will they be working
21 collectively to finalize that plan? Are discussions
22 occurring, particularly between GNWT and Parks Canada, to
23 deal with the issue of how monitoring would apply under
24 the different jurisdictions?
25 THE CHAIRPERSON: Thank you. I'm going

1 to go back to GNWT.
2 MR. GAVIN MORE: Gavin More, GNWT. I'll
3 answer part of that, and I'll then ask Dr. Larter --
4 Larter if he has anything to add.
5 Basically the way we've been treating the
6 plan is it was submitted by the proponent. We've been
7 reviewing it internally in the GNWT. We haven't had at
8 this date any direct discussion with the proponent. And
9 that's partly because the proponent indicated that they
10 were -- that it was out for draft and it was out for
11 comment, and it would be finalized during the regulatory
12 phase.
13 So rather than do much as part of the EA
14 intervention, our preference was to start our version of
15 edited comments to provide to the company when we got to
16 that phase. I have not had -- myself had direct
17 negotiations with Parks Canada during this, and I'll have
18 to ask Dr. Larter if he has anything to add.
19 DR. NIC LARTER: Hi, Nic Larter, ENR,
20 GNWT. Parks Canada and ENR -- sorry, sorry. Parks
21 Canada and ENR at this time have not sat down at the
22 table and had any formal discussions relating to the --
23 to the plan. However, we are in constant contact back
24 and forth. The two (2) offices converse back and forth
25 here. I'm sure as things move forward and we see more

1 stuff we will be working together to finalize this
2 agreement.
3 MR. GAVIN MORE: And -- and Gavin More,
4 GNWT. And just to add to that, one (1) of the other
5 important aspects of this process is the technical
6 advisory committee. So I'm -- I'm -- we're not sure how
7 quickly CZN is going to pursue, but we actually believe
8 that sort of the -- the compilation consolidations of --
9 of all the parties is a very important first step in
10 developing or working towards the final plan.
11 THE CHAIRPERSON: Thank you. I'm going
12 to go to Peter Redvers, if you have a follow-up?
13 MR. PETER REDVERS: Peter -- Peter
14 Redvers. Thank you for that, Gavin. That was -- the
15 final comment was consistent, I think, and should be
16 again on the record with the Naha Dehe recommendation,
17 which is the technical advisory committee do -- does get
18 involved in that when it comes to finalization. And that
19 might be the -- the means to bring the parties together
20 that have a joint interest and, so, thank you.
21 THE CHAIRPERSON: Thank you, Mr. Redvers.
22 I'm going to go to go continue on to Parks Canada. If
23 there's any questions to the GNWT on their presentation?
24 MS. KATHERINE CUMMING: Katherine
25 Cumming, Parks Canada. No questions. Thank you, Mr.

1 Chair.
2 THE CHAIRPERSON: Thank you. I'm going
3 to go to Dehcho First Nations. I don't know if Mr.
4 Acorn's here or not, but is there any questions? Yes.
5 MR. JOE ACORN: Yes, Joe Acorn, Dehcho
6 First Nations. Just in reviewing the -- the various
7 technical reports that were submitted by the government
8 departments, I got to say the one that I'm most
9 disappointed in is the one by the GNWT.
10 I've le -- we've left the socio-economic
11 issues more up to the local community, so we're focussing
12 more on the wildlife and water quality. So on the
13 wildlife section of your technical report it's basically
14 nothing more than a compilation of CZN commitments.
15 There's absolutely no evaluation of Canadian Zinc's
16 impact analysis. There's no statements or concerns of
17 any way of what the GNWT thinks impacts will be on
18 wildlife.
19 Where is your evaluation of CZN's impact
20 assessment and where is your impact assessment because
21 it's certainly not in this wildlife report?
22 THE CHAIRPERSON: Okay, thank you. I'll
23 go to GNWT.
24 MR. GAVIN MORE: Gavin More, GNWT. I
25 think you have to take into account a couple things. The

1 CZN's gone through a number of environmental assessments
2 to date. Much of what has evolved into this approach for
3 what we think are the -- the key approaches for the
4 company, the methods to -- to ensure protection of
5 wildlife resources has -- has been met by the company's
6 commitment to do the wildlife plan. We argued in
7 previous environmental assessments quite strongly about
8 grizzly bears, grizzly bear safety at the mine,
9 incinerations, waste management, all those sorts of
10 things.
11 Our approach is -- is a little more on
12 making sure that the mitigations and approaches are
13 correct. It's up to the company to have -- assess the
14 impact. We don't -- if we do not see any major problem
15 with the -- with their assessment we won't spend a lot of
16 time coming up with a new assessment, and I think that's
17 the key on this one.
18 The proponent, from our point of view,
19 we've been working with for quite a number of years, at
20 least since 2005, on doing things together at the mine
21 site to -- to protect wildlife. From our perspective,
22 the -- the impact on what the -- the wildlife resources,
23 particularly outside the park, are -- are not great.
24 We've not seen them at -- seen that as a major issue for
25 us, so we would not spend a lot of time doing an

1 assessment when the company's already done a reasonable
2 assessment from our perspective.
3 THE CHAIRPERSON: Thank you. I'm going
4 to back to Dehcho to see if there any more questions that
5 you have. But, at the same time, maybe if I could ask
6 Joe, just for translation purposes, if he could slow down
7 a little bit.
8 MR. JOE ACORN: All right.
9 THE CHAIRPERSON: Mahsi.
10 MR. JOE ACORN: Joe Acorn. Sorry.
11 Impact assessment is not simply a piling on of
12 commitments, which seems to be the GNWT's approach here.
13 I mean, you got to properly identify the impacts and then
14 apply the commitments that are needed.
15 Nahanni Butte and Parks Canada have both
16 identified numerous and significant concerns with the
17 impact analysis conducted by Canadian Zinc. So have you
18 reviewed those technical reports and are you asserting
19 that you disagree with those concerns stated by those two
20 (2) parties?
21 MR. GAVIN MORE: Gavin More, GNWT.
22 THE CHAIRPERSON: Thank you. I'm going
23 to go to the GNWT.
24 MR. GAVIN MORE: Gavin More, GNWT.
25 Actually, I wouldn't -- I wouldn't agree with that

1 statement. We did a fair review of the Mountain caribou
2 information for the Selwyn projects along the Yukon
3 border. And, at that time, it was -- it was quite clear.
4 And -- and we were actually quite fortunate because, at
5 that time, John Nagy had done -- was able to use the --
6 the information from Olsen (phonetic) from about 2000 in
7 that analysis, so we knew a little more about the
8 Redstone herd.
9 From -- from the data that we had, both
10 collected by Yukon, Parks Canada, GNWT, as well as the --
11 the other project in the Sahtu, it was quite clear to us
12 that there was either a lack of information being
13 collected in that extension of Parks Canada, but the
14 information prior to that indicated that both the south
15 Nahanni herd and the Redstone were either to -- more to
16 the northwest of the mine site or, for the Redstone herd,
17 more to the north.
18 Any information collected during the
19 wildlife mapping during the Dehcho process, discussions
20 with outfitters in the area, all led us to believe that
21 basically that area of the park may not be a particularly
22 critical area for those two (2) herds.
23 Is there a gap? Most likely. Is it up to
24 the proponent to fill that gap in the extension of the
25 park? We actually don't agree with that. But the -- the

1 information to date, from our point of view, doesn't lend
2 itself to indicate that there is a strong, significant
3 impact potential for either a Mountain caribou or even
4 Boreal caribou in that area. And, of course, for the
5 other species at risk they're either seasonal in terms of
6 only being there in the summer, the Environment Canada
7 recommended mitigation measures pick up measure to
8 protect those.
9 They're -- from our perspective there --
10 there isn't the level of significant concern that seems
11 to be coming from -- from Parks Canada from our
12 perspective, and it's -- that -- that's quite clear from
13 our review of our information. We are aware that the
14 park eventually will take over the mine site. So from
15 our perspective we've also been watching and seeing how
16 the park reacts to what's going on at the mine because we
17 do believe that that's -- that's an important aspect for
18 the future when the park becomes the -- the sole land
19 manager in the area.
20 But I think from our perspective there --
21 if there's a gap it's -- it's -- that's leading people to
22 think that there's a significant impact. We're not --
23 we're not actually fully in agreement that -- that that
24 gap is real.
25 THE CHAIRPERSON: Okay. Thank you.

1 We'll go back to Dehcho First Nations and any further
2 questions?
3 MR. JOE ACORN: Joe Acorn. Everything
4 you just said there should have been said in writing. I
5 mean, it would have been useful to everybody here,
6 including the Review Board, to have had what you just
7 stated in your document instead of simply submitting a
8 list of commitments.
9 Now I looked at the ta -- looked at the
10 report that was submitted by Parks Canada and Nahanni
11 Butte Dene Band and they've identified numerous concerns.
12 If -- if you had differences of opinion you should have
13 stated them. And -- and I think what you've submitted
14 here indicates a weak, weak effort on the GNWT's part to
15 provide what you're supposed to provide which is expert
16 assistance on wildlife.
17 And -- this isn't really a question, but a
18 point. I remember ten (10) years ago when I worked at
19 the Review Board we used to rely on the GNWT
20 significantly for bringing up analysis and bringing
21 forward recommendations. And this report you've
22 submitted continues a trend I've been seeing for a while
23 of the GNWT becoming increasingly irrelevant in the EA
24 process and that's disappointing.
25 THE CHAIRPERSON: Okay. Thank you. And

1 so we'll go back to the GNWT.
2 MR. GAVIN MORE: Yeah, I'd like to
3 comment on that. I think what -- you're missing the
4 point of our strategy. The -- the whole focus for us is
5 the ongoing management approach. And in many projects we
6 request wildlife plans as measures and we're not
7 necessarily successful when we get to the regulators.
8 The vent -- what these so called
9 commitments are, are committed mitigations and the
10 mechanism for implementing those mitigations by planning
11 them out ahead of time is in the wildlife plan. The ways
12 to improve as information becomes available -- and I
13 think that came out quite strongly from the proponent
14 yesterday that until people start working with the area
15 we won't know for sure how valid some of these issues are
16 that -- that you believe people have raised as
17 significant issues.
18 It will actually -- the method to react to
19 those -- to -- to the new information is in the plan in
20 terms of the wild -- the proposals to monitor, to develop
21 a better understanding of where caribou crossings may or
22 may not be along the road. But -- but the whole point is
23 that at this stage of the game, those -- those kinds of
24 concerns that have been raised have been very
25 generalized.

1 And from our perspective the biggest
2 concern for us has always been to develop an appropriate
3 management system once a project gets rolling and gets
4 into construction. And from our point of view, for
5 almost the first time, we've seen that from a proponent.
6 And from our -- from -- from our perspective we -- we
7 believe the plan needs to be improved, but for us that's
8 -- that's the mechanism to make sure that the animals are
9 protected over time and a little less concern over
10 spending a lot of time coming up with an assessment when
11 there is very little information to assess on.
12 I think that's the key, there is a gap in
13 that area and the gap may be because there's very little
14 use of the area, we don't know, Parks Canada doesn't
15 know. They don't have data to support that. So for us
16 the -- the key always is: Will we end up with an
17 effective management approach to ensure mitigation over
18 time? And we think that that's what the proponents put
19 forward.
20 THE CHAIRPERSON: Okay. Thank you.
21 Dehcho First Nation, do you have any more questions?
22 None? Thank you very much. I'm going to continue onto
23 Environment Canada. Any questions to the GNWT on their
24 presentation made this morning?
25 MS. ANNE WILSON: Anne Wilson with

1 Environment Canada. We have no questions.
2 THE CHAIRPERSON: Thank you. I'm going
3 to go to Natural Resource Canada. Any questions for the
4 GNWT on their presentation this morning?
5 MR. FONS SCHELLEKENS: Natural Resources
6 Canada doesn't have any questions for the GNWT. It's
7 Fons Schellekens.
8 THE CHAIRPERSON: What's your name?
9 MR. FONS SCHELLEKENS: Fons Schellekens
10 with Natural Resources Canada.
11 THE CHAIRPERSON: Okay. Thank you. We
12 initially had Transport Canada on our docket here.
13 They've -- they're not here so we're -- oh, is there?
14 Yeah, we're going to go to Transport Canada. Any
15 questions --
16 MR. CHRIS AGUIRRE: I -- Chris Aguirre
17 for Transport Canada. I have no questions for...
18 THE CHAIRPERSON: Okay. Thank you. Next
19 on the list I have Liidlii Kue First Nation. Is anybody
20 here that have questions for GNWT? It doesn't look like
21 it. Thank you. And I want to go to the Review Board
22 staff and then legal counsel and Board members. I'll go
23 to the Review Board staff. Any questions?
24 MR. JOHN DONIHEE: I have, I think, one
25 (1) question, Mr. Chairman.

1 You mentioned, or -- or made a suggestion
2 that there ought to be a socio-economic agreement between
3 Canadian Zinc and the Government of Northwest Territories
4 to address management and mitigation of socio-economic
5 impacts on a broader regional scale.
6 I just wonder if you can tell us a little
7 more about the status of -- of this idea. Have you
8 initiated that kind of discussion with the proponent
9 already? Have you got any kind of commitments from them
10 to actually proceed, and to negotiate an agreement of
11 this kind?
12 THE CHAIRPERSON: Thank you, Mr. Donihee.
13 And we'll go to the GNWT.
14 MR. GAVIN MORE: Gavin More, GNWT. I
15 actually personally don't have that information, John.
16 I'm aware that the -- the companies have -- the company
17 has talked to -- to the Department of Industry, Tourism,
18 and Investment, and -- and Education, Culture, and -- and
19 Employment. I'm not sure if the proponent's able to
20 answer that question but, no, I don't have any specific
21 information.
22 THE CHAIRPERSON: Thank you. I'm going
23 to go back to John Donihee. John Donihee...?
24 MR. JOHN DONIHEE: John Donihee. Thank
25 you, Mr. Chairman, that was my only -- only question.

1 THE CHAIRPERSON: Okay. Thank you. I'll
2 go to the Review Board staff.
3 MR. CHUCK HUBERT: No further questions,
4 Mr. Chair.
5 THE CHAIRPERSON: Okay. Thank you. I
6 want to go to my far left. I want to go to Mr. Darryl
7 Bohnet, Board member. Any questions of the GNWT?
8 MR. DARRYL BOHNET: Thank you, Mr. Chair.
9 No questions.
10 THE CHAIRPERSON: Thank you. I want to
11 go to Mr. James Wah-Shee, Board member.
12 MR. JAMES WAH-SHEE: Mr. Chair, I have no
13 questions. Thank you.
14 THE CHAIRPERSON: Thank you. Mr. Percy
15 Hardisty, Board member.
16 MR. PERCY HARDISTY: Mahsi, Mr. Chair. I
17 don't have any questions.
18 THE CHAIRPERSON: Thank you. Ms. Rachel
19 Crapeau, Board member.
20 MS. RACHEL CRAPEAU: Mashi cho, Mr.
21 Chair, no questions.
22 THE CHAIRPERSON: Thank you. Mr. Richard
23 Mercredi, Board member.
24 MR. RICHARD MERCREDI: Thank you, Mr.
25 Chair. No questions at this time.

1 THE CHAIRPERSON: Thank you. Mr. Danny
2 Bayha, Board member.
3 MR. DANNY BAYHA: I just had a couple
4 questions, thank you.
5 Earlier you -- in your presentation you
6 have some -- a certain amount of recommendations that you
7 would like to see happen between the company and -- or
8 see the company commit to.
9 Should -- and -- and earlier in your
10 comments in response to Mr. Acorn's questions you
11 mentioned that -- that further on because of a lack of
12 information how the company operates would -- would see
13 that some of these -- the company would honour some of
14 the -- the plans that they're beginning to develop.
15 Should the company itself, in your eyes as
16 you monitor how the -- the -- what you -- what you
17 propose, some of the recommendations, that if they don't
18 do some of the things, or that's not happening, what
19 recourse would GNWT have in terms of ensuring some of
20 these? For example, socio-economic agreements, you have
21 a wildlife monitoring plan, an archaeological survey be
22 happening. If that doesn't happen what -- what course
23 does GNWT have and, for that matter, for the community
24 members, if they have concerns, how would they go about
25 making sure some of the stuff happens? Thank you.

1 MR. GAVIN MORE: Gavin More, GNWT. I'll
2 separate that in terms of what ones we know regulators
3 can take care of. So, for example, although it's not
4 currently done by the Mackenzie Valley Land and Water
5 Board, they have the ability to require an environmental
6 impact assessment, or excuse me, an archaeological impact
7 assessment as -- as a term and condition under a
8 particular clause under the Mackenzie Valley Land Use
9 Regulations. I'm not sure if Parks Canada has -- has a
10 similar ability.
11 For the wildlife plan -- and one (1) of
12 the reasons I put in the terms and conditions from the
13 existing land use permit, it struck me that the Land and
14 Water Board went a little farther in requiring the
15 company to report on its commitments. They weren't
16 specific necessarily on, say, something as specific as a
17 wildlife management plan and reporting on it.
18 So I think there is the ability, and --
19 and of course Parks Canada, I'm not 100 percent sure
20 again how their legislation works, but they may have the
21 ability to require the -- a wildlife management plan to
22 be under their equivalent of a land use permit. So the
23 key is there -- there are potential for some regulators
24 who have the ability to -- to do something if commitments
25 aren't met.

1 I think the key for me, what I was trying
2 to separate in my own mind is the difference between a
3 recommended measure from the Board versus what I call
4 committed mitigations. And for me the primary ones for
5 the proponent really are the plans with the -- the list
6 of the kinds of mitigations that -- that they have in
7 mind to put into those plans.
8 One (1) of the reasons why I reorganized
9 the company's May 6th was to make it much easier for
10 people to see what issues the -- the mitigation measures
11 link to and also what regulatory aspects those could be
12 under. So some, for example, definitely fall under the
13 Waste Management Plan, which can fall under the Mackenzie
14 Valley Land and Water Board, which has implications for
15 minimizing the attraction of wildlife. So there's a bit
16 of a balancing act.
17 Some of the -- the mitigation measures are
18 clearly components of plans that regulators do do. Now
19 we know the Land and Water Board recently has sort of
20 thrown out publicly that the wildlife issues are really
21 ENR and Environment Canada to take care of. I don't
22 think we're a hundred percent in agreement that they
23 couldn't require a -- a broader document like a wildlife
24 plan and then not necessarily enforce it through the
25 inspection system, but enforce it through the, if you

1 didn't live up to your commitments here's what we can do
2 under the -- the -- the fines or the -- the stopping of
3 the project. So we think there are mechanisms. We're
4 not sure the -- the regulators actually agree with those
5 mechanisms.
6 The other key part is that if you go to
7 processes like National Energy Board where they tend to
8 put a lot of emphasis on -- on the commitments by a
9 company and then reporting by the company on the
10 attainment of those commitments. But it's not
11 necessarily a punishment system, it's if you can't live
12 up to the commitment because either it was impractical in
13 the end, or there's a better way to do it, you report on
14 that change.
15 And if you look at what we put in our
16 technical report, there was one (1) change that the
17 company made in terms of its -- its vegetation work
18 because when they started double-checking with our expert
19 in ENR she recommended not seeding because it has greater
20 probability of bringing in exotic species or invasive
21 species or...
22 So the key there was sometimes the
23 commitment that the companies made isn't something that
24 they should be held to have to do, but they should have
25 to consider doing it. And if they can't do it they

1 should report on it. We say that, I think, in the
2 Mackenzie Valley Land and Water Board in -- in that last
3 term and condition where they -- they were getting at
4 making the company report annually on attaining its
5 commitments.
6 And for us that's the first step. And we
7 do know that the wildlife plan, in my mind, is the
8 mechanism and that's where the final wording and how it
9 will be implemented will be detailed. And for me the --
10 the -- the sort of the discussion with the regulators,
11 but also with the communities is where the pressure will
12 come on the company to come up with the -- the right
13 wording. We also assume that they'll learn over time,
14 and that they will improve some of their procedures over
15 time as well.
16 So I think that's the other key, there's
17 ones you can't expect the mitigations to be 100 percent
18 now because there will be things that will be learned
19 over time and need to be adjusted. The plan is -- is the
20 mechanism for that.
21 The reason why we've suggested that the
22 committed mitigations be included in the report of
23 environmental assessment is -- is to make sure that
24 there's the strength of these were commitments that you
25 made, and that's how come the Board said, Yes, the

1 project might or might not proceed on the basis of those
2 commitments and that you made those commitments beca --
3 because you're going to live up to them.
4
5 The oth -- and that's the other reason why
6 we struggle to make sure that the commitments themselves
7 are really well worded. And that's the problem that we
8 know has happened in the past for some projects, where
9 the Land and Water Board's phoned us and said, Hey, this
10 commitment, what can we do about it. And you have to
11 agree that the way the commitment was worded, there isn't
12 anything you can do.
13 So, for us, the -- the real improvement
14 we'd like to see in this project is the commitments table
15 themselves be really well worded and be sort of spar --
16 specific, measurable, attainable, relevant, and
17 trackable. And the word "trackable" relates back to that
18 ability to find out were the commitments done or not.
19 And, for us, probably the -- the pressure
20 from the communities is as strong a mechanism as the
21 regulators in terms of ensuring that this company does
22 that.
23 THE CHAIRPERSON: Thank you. I'm going
24 to go back to Danny Bayha, Board member.
25 MR. DANNY BAYHA: Thank you, Mr. Chair.

1 One (1) final question. Earlier you said in your socio-
2 economic recommendation that -- you mentioned that
3 there's some untested proposed mitigation.
4 Could you maybe just give us a glimpse of
5 what that possibly could be? Thank you.
6 THE CHAIRPERSON: Thank you. I'm going
7 to go back to the GNWT.
8 MR. GAVIN MORE: Sorry, Mr. Chair, I
9 wasn't quite able to understand that with the -- the
10 noise in the background.
11 THE CHAIRPERSON: Mr. Bayha...?
12 MR. DANNY BAYHA: Thank you, Mr. Chair.
13 Earlier you mentioned under your last -- one (1) of your
14 last slides of socio-economic recommendations, you
15 mentioned that there was some plans the company is
16 proposing in the socio-economic aspect of this EA, that
17 there's some untested mitigation, a proposed mitigation
18 by the company.
19 Could you highlight what those possibly
20 could be? Thank you.
21 THE CHAIRPERSON: Thank you. GNWT...?
22
23 (BRIEF PAUSE)
24
25 MR. GAVIN MORE: Sorry, I was trying to

1 check with somebody who is a little more involved in
2 socio-ec. Basically, I -- I think the way the -- the
3 thought process would go, the communities for this mine
4 are quite different than the diamond mines, where we have
5 a fair amount of experience. There are a fair amount,
6 and we've purposely tried to pro -- to provide in our
7 technical report both the -- the sort of the short list
8 that came in on May 6th, but also the -- the longer list
9 of -- of ideas that were raised in the DAR and -- and
10 through technical sessions.
11 The -- the key difference with that -- our
12 approach to that topic is to be less worried about the
13 wording in the -- in the various commitments, but to be
14 more -- to design a system for monitoring and tracking
15 and reporting. So that's -- that's one (1) of the key
16 things that -- that comes out of the diamond mines.
17 There's a -- there's a fair amount of
18 arrangement between the GNWT and -- and the mines and the
19 communities for information that can be tracked and --
20 and reported. And then that follow-up program becomes
21 the mechanism for if there's additional mitigations that
22 -- that need to be done either by the company, but also,
23 to some extent, by the government. It gives us that
24 ability as -- as well.
25 And I think that's the -- the key

1 balancing act on some of the social issues, is some of
2 the remedies come through government programs. They
3 don't necessarily come through the company. So the --
4 that, to us, is -- is the key importance.
5 We know certain aspects are in the IBAs,
6 and -- and the socio-ec agreement as a follow-up program
7 is meant to provide that monitoring reporting on the
8 socio-economic issues. And there's usually sort of three
9 (3) or four (4) particular subject areas that -- that
10 those fall under. There are differences between say the
11 socio-ec agreement for the Mackenzie gas project where
12 there are aspects of transportation that were included in
13 that agreement.
14 So there may be some things that have not
15 been talked about that -- that have the potential for
16 being tracked in that socio-ec agreement over and above
17 the -- the more obvious ones on training and employment,
18 that sort of thing.
19 THE CHAIRPERSON: Okay, thank you. Now
20 we go back to Danny Bayha.
21 MR. DANNY BAYHA: Thank you, Mr. Chair.
22 Just one (1) final -- final question.
23 Again, I -- I think it's maybe in the
24 company in some ways. They -- they already have an IB
25 agreement with the two (2) Bands as well, and they cover

1 certain things like you mentioned earlier, but I guess
2 it's, for me, in some ways confusing.
3 You want another socio-economic agreement
4 again with the company and -- and I guess it would -- for
5 me, if I was the company I would ask -- I said -- I would
6 certainly say, Well how does this fit together with the
7 IBs they already -- they already have with the
8 communities? Would -- you know, so -- so there's got to
9 be a clear picture for -- you know, for -- for the
10 company's -- for me, anyway. If I was the company, I
11 would ask, Now you want another agreement, or exactly how
12 is that going to fit with the existing agreement that's
13 already in place. Is that going to duplicate that, or is
14 that going to add to it, or is that going to complement
15 it?
16 How is that going to fit together so that
17 everybody has a clear understand of how things -- what
18 kind of things are agreed upon and which -- which areas
19 and stuff so nothing falls through the cracks, really.
20 So if you can maybe just give us a little bit more
21 information on that. Thank you.
22 THE CHAIRPERSON: Thank you, Mr. Bayha,
23 for your final question. I want to go to GNWT.
24 MR. GAVIN MORE: Gavin More, GNWT. That
25 question came up all the way through the Mackenzie gas

1 project, so I know the answer.
2 Basically the socio-ec agreement actually
3 covers usually different aspects than the IBAs. The IBAs
4 are usually negotiated first, and the company, of course,
5 therefore knows the IBAs, and even though they're
6 confidential they usually make sure that there is no
7 conflict or overlap or duplication between the socio-ec
8 agreement and the IBAs.
9 They more typically relate to what I
10 consider sort of the social issues, tracking --
11 employment tracking, procurement tracking, so those are
12 obviously issues for -- for people that may be talked
13 about in the IBAs, but -- but the -- the tracking and
14 monitoring those on a more regional, or an NWT basis
15 takes place, and I think that's the other key. Our
16 socio-ec agreements tend to be -- to cover the NWT as
17 compared to the IBAs, which tend to cover a specific
18 community.
19 From my perspective, they also tend to
20 document our responsibilities. And so the one (1) I'm
21 most familiar with is probably NGP (phonetic), where
22 there are a certain kind of reporting that the company
23 will do, but then there's also a whole monitoring and
24 reporting that the GNWT will do. And of course a lot of
25 that actually happens through the bureau statistics. So

1 it's -- it's that kind of -- the difference is -- is sort
2 of the -- the area covered, and the interest of the GNWT
3 where communities will promote employment at a local
4 level.
5 And of course part of what we promote is
6 employment by the NWT -- within the NWT once you get past
7 the -- the obligations for local hiring. So part -- much
8 of -- much of the focus is to try to make sure that the
9 NWT benefits as much as possible beyond what the
10 communities are benefiting from. And it often also
11 includes training, and agreements on training, and
12 specific courses, that sort of thing. So it also helps
13 develop some of the -- the programming that's -- that's
14 done by key departments, like education, culture, and
15 employment.
16 And as I mentioned, I'm not sure about
17 this one (1) but if it's not being thought about by our
18 people I would actually suggest that the -- the use of
19 our roads is -- could also be part of this socio-ec
20 agreement, and the -- that wouldn't normally be part of
21 an IBA.
22 THE CHAIRPERSON: Okay. Thank you. Mr.
23 Bayha, any more questions?
24 MR. DANNY BAYHA: That's all I have.
25 Thank you, Mr. Chair.

1 THE CHAIRPERSON: Thank you, Mr. Bayha.
2 I'm going to go to Board member Peter Bannon.
3 MR. PETER BANNON: Thank you. I have a
4 couple questions, and one (1) -- I'm glad Danny asked
5 that question.
6 I had a similar question to it and -- but
7 there is just still an element of it that is -- that I'm
8 a little com -- concerned about, and that is that you
9 said the geographical extent is different between IBA and
10 the socio-economic agreement. But the -- the topics and
11 obligations are still similar, especially in the area of
12 employment, and business opportunities, or procurement.
13 I'm wondering if there's a risk of you --
14 the socio-economic agreement creating -- having an
15 adverse effect on the IBAs because competing with it
16 overemploys -- the mine only has two hundred (200) and
17 some odd employees and there is local agreements, there's
18 local satisfaction.
19 What will be in the socio-economic
20 agreement that wouldn't compete with the -- what the
21 communities want out of the IBAs?
22 THE CHAIRPERSON: Thank you, Mr. Bannon.
23 I'm going to go to GNWT.
24 MR. GAVIN MORE: Gavin More, GNWT. Yeah,
25 unfortunately, Peter, you're way outside my scope. I've

1 actually never seen an IBA, so I don't actually know what
2 they contain. I've -- we, through the GRP (phonetic)
3 hearing saw a list of, sort of, an outline of content.
4 We do know, with our examples of social-ec
5 agreements what -- what they do cover, and I can provide
6 the copies to -- to the Board so you can see what a --
7 what -- what they are. We do know that this one would
8 need to be tailored to the area. So a very large diamond
9 mine requiring, say, fifteen hundred (1,500) employees,
10 things like points of hire would obviously include the
11 local communities around the mine, but might include all
12 the way up to Inuvik for points of hire. This particular
13 project, that kind of discussion on points of hire might
14 end up being quite different based on the geography, the
15 airports, that sort of thing.
16 So I actually can't compare a) because I
17 don't know what is in an IBA and b) I actually do not
18 know what's been discussed to date between the GNWT and
19 the company on this particular socio-ec agreement.
20 THE CHAIRPERSON: Thank you. I'm gonna
21 go back to Board member Peter Bannon.
22 MR. PETER BANNON: I have a -- another
23 question related to the socio-economic agreement as well.
24 You're recommending that it be a condition
25 of project approval. And as you -- I'm sure you're aware

1 for the Board to -- under the EA -- the environmental
2 assessment stage for the -- the Board to make a condition
3 -- a measure like that it needs to be tied to the
4 likelihood of a significant adverse impact. And we've
5 heard that -- that at the local level things seems to be
6 in pretty good shape. You've listed some things in your
7 report that I don't think really -- you talk about some
8 uncertainties and you talk about something that might
9 happen.
10 Can you link the need for the socio-
11 economic agreement to a likely significant adverse
12 impact?
13 THE CHAIRPERSON: Maybe I'll just stop
14 you there for a second. I don't know if anybody heard
15 that, but maybe I could get Peter to put the mic closer
16 to your --
17 MR. PETER BANNON: Oh, I'm sorry.
18 THE CHAIRPERSON: If you could rephrase
19 the question again.
20 MR. PETER BANNON: It was a long question
21 too, I don't know if I remember it.
22 I had said that the GNWT is suggesting
23 that -- that a condition of project approval be the
24 requirement for a socio-economic agreement.
25 And I -- I was asking Gavin -- and I'm

1 sure he's well aware of this, for the environmental
2 assessment stage that we're in for the Board to make a --
3 a measure that's more mandatory, so to speak, a
4 mitigative measure, it needs to be linked to the
5 likelihood of a significant adverse impact, which the
6 Board has put out a reference bulletin describing what
7 they think that means. And -- but the -- the technical
8 report and the presentation don't speak to that as much.
9 They speak to some uncertainties and they speak to --
10 well, it's a mine and it should have one (1) and things
11 like that.
12 I was wondering if -- if there's a signif
13 -- significant adverse impact that is likely to occur
14 that you could, in the socio-economic area, that you
15 could say that we should be considering socio-economic
16 agreement as a condition of approval?
17 THE CHAIRPERSON: Okay. Thank you, Mr.
18 Bannon. I'm going to go to GNWT.
19 MR. GAVIN MORE: Gavin More, GNWT. I
20 believe the approach that the -- the departments -- the
21 direction they've given me is to request it as a measure
22 for a follow-up program. And a follow-up program by
23 definition is -- is basically to test the predictions of
24 the proponent. Other than what's in that report I cannot
25 give you any specific significant impact other than the

1 department's belief that there is uncertainty and
2 therefore needs a follow-up program to test the
3 predictions of the proponent.
4 THE CHAIRPERSON: Okay. Thank you. Mr.
5 Peter Bannon...?
6 MR. PETER BANNON: One (1) more question
7 and it's, I guess, on the edge of relevancy perhaps, but
8 we've heard before and this comes up often in an
9 assessment -- socio-economic agreements, and I think
10 often they -- they are a good idea, and I think the GNWT
11 has done well with them.
12 I'm -- I'm just wondering why the GNWT has
13 not legislated the requirement and under what conditions
14 socio-economic agreements would be required rather than
15 coming to sessions like this and hoping somebody else
16 will acc -- accept it as a recommendation.
17 THE CHAIRPERSON: Thank you, Mr. Bannon.
18 GNWT...?
19 MR. GAVIN MORE: Gavin More, GNWT. This
20 is probably my own personal point of view, but I actually
21 agree. My -- my guess is some of it relates to the fact
22 that for certain industries there are requirements under
23 federal legislation for things that encompass some of the
24 aspects on training and employment, that sort of thing.
25 So I refer basically to the oil and gas

1 industry, there is a federal requirement for that. To
2 me, much of the GNWT planning and changes will likely
3 occur once devolution happens, when people feel that they
4 can -- they can both pass and be able to -- to enforce
5 that.
6 Right now, yes, we've -- we've got certain
7 service requirements devolved to the GNWT. But, from my
8 perspective, we don't necessarily have the support of the
9 federal government to develop legislation that they might
10 feel infringes on their -- their obligations under their
11 legislation.
12 So that -- that's my personal point of
13 view. I'm -- I'm rather hoping that devolution will
14 solve that problem and the GNWT will develop appropriate
15 legislation in those subject areas that we don't have it
16 right now.
17 THE CHAIRPERSON: Okay. Thank you. I'm
18 going to go to Peter Bannon, any further questions?
19 MR. PETER BANNON: No further questions,
20 thank you.
21 THE CHAIRPERSON: Thank you, Mr. Bannon.
22 I'm going to go to Canadian Zinc if you had any questions
23 for the GNWT.
24 MR. DAVID HARPLEY: David Harpley. Not
25 so much questions, Mr. Chair, maybe just a few

1 clarifications. We are in general agreement with the
2 recommendations that GNWT have made.
3 I did want to clarify one (1) of the
4 recommendations that has to do with the archaeology. We
5 would be suggesting some rewording of the recommendation,
6 partly because we already conducted one (1)
7 archaeological impact assessment. So what's being
8 proposed is really a supplementary one.
9 And, also, as written the -- the scope of
10 the supplementary assessment is perhaps a little too
11 broad. In our discussions for the first one we spoke to
12 the community, Nahanni Butte, and identified the areas
13 where there was most likely going to be some cultural
14 resources and then we investigated those areas. And,
15 subsequently, in discussions with the Prince of Wales
16 representative, there was an indication that perhaps we
17 needed to do more work, specifically on the alignment
18 from Nahanni Butte to Grainger Gap. So we believe that's
19 really the focus of the supplementary study.
20 As far as comments that were made about
21 socio-economic agreement, I'll pass the mic over to Alan
22 Taylor and he can give the company's perspective on where
23 that sits.
24 THE CHAIRPERSON: Okay. Thank you. I'm
25 going to Mr. -- Alan.

1 MR. ALAN TAYLOR: Thank you, Mr. Chair.
2 It's Alan Taylor. Just for -- to clarify the obscurity
3 that surrounds the socio-economic agreement discussion
4 that has just taken place, we made that commitment to --
5 to negotiate and sign off a socio-economic agreement with
6 the GNWT and -- and I believe it was in our first
7 technical session.
8 And we continue to move things along with
9 that. We have fully engaged the GNWT on formal
10 negotiations and are well advanced in that process and
11 hope to see a successful conclusion to that in the near
12 future.
13 THE CHAIRPERSON: Okay. Thank you. So
14 that was just for clarification, that's my understanding.
15 And I guess there's no further questions from the public
16 so we're going to stop there.
17 We'll take a -- maybe a ten (10) minute
18 coffee break and we'll come back, and then we'll get --
19 while we're doing that we'll get Fisheries and Oceans to
20 come up to get set up on -- on their presentation.
21
22 --- Upon recessing at 9:41 a.m.
23 --- Upon resuming at 10:00 a.m.
24
25 THE CHAIRPERSON: Thank you. Good

1 morning. Good morning. We'll start. We're just waiting
2 for Fisheries and Oceans to get set up here. So you guys
3 are almost all ready to go? Okay. All right, we're
4 going to go -- continue on with the presentation this
5 morning. I have Fisheries and Oceans. We'll get you
6 guys to go ahead and do your presentation.
7 And, again, we'll just remind everybody
8 that we're on a tight agenda today, so I just want to let
9 you guys know that. Very good. So continue on. Thank
10 you.
11
12 PRESENTATION BY FISHERIES AND OCEANS:
13 MS. BEVERLEY ROSS: Good morning, Mr.
14 Chair, panel members, and members of the public. My
15 name's Beverley Ross. I'm representing the Departments
16 of Fisheries and Oceans in the central and arctic region.
17 I'd also like to introduce Lorraine Sawdon on my right,
18 and Pete Cott on my far right, and Sarah Olivier on my
19 left, from the DFO Yellowknife office.
20 Do we have -- I'm going to speak to DFO's
21 mandate and today our -- our potential areas of concerns
22 and recommendations respecting the Prairie Creek mine
23 project. Our presentation will give a quick overview of
24 the Department of Fisheries and Ocean's mandate and a
25 summary of our potential concerns and recommendations.

1 DFO is responsible for developing and
2 implementing policies and programs in support of Canada's
3 scientific ecolo --
4 THE CHAIRPERSON: Excuse me.
5 MS. BEVERLEY ROSS: Pardon me?
6 THE CHAIRPERSON: Can you raise up your
7 voice a little bit?
8 MS. BEVERLEY ROSS: Sure. I'll get a
9 little closer to the mic too. Is that better? Yeah.
10 Okay, DFO is responsible for developing and implementing
11 policies and programs in support of Canada's scientific,
12 ecological, social, and economic interests in oceans and
13 fresh water.
14 DFO's guiding legislation are the Oceans
15 Act and the Fisheries Act. And I'm just going to speak
16 to the Fisheries Act today. The Fisheries Act gives
17 responsibility to our minister for the management,
18 protection, and conservation of Canada's fisheries,
19 resources, and all fishing zones, territorial seas, and
20 inland waters.
21 The proponent -- yeah, okay. The
22 proponent is required to be in compliance with any and
23 all habitat protection provisions under the Fisheries Act
24 at all times for all aspects of their project. The
25 following are sections of the Fisheries Act that are

1 relevant to this project proposal.
2 So Section 22 requires sufficient flow for
3 the passage of fish. Section 30 requires fish guards and
4 screens for water withdrawals. Section 32 prohibits the
5 destruction of fish by means other than fishing unless
6 authorized by the fish -- by the Minister of Fisheries
7 and Oceans.
8 Section 35, which is our most commonly
9 spoken to section of the Act, prohibits the harmful
10 alteration, disruption, or destruction, commonly called a
11 HADD, of fish habitat. And Section 35(2) of that
12 indicates that the minister may authorize that harmful
13 alteration, destruction, and disruption.
14 Finally, I'll just briefly mention Section
15 36, which prohibits the deposit of deleterious substances
16 into fish bearing waters. This section of the Act is
17 administered by Environment of Canada, and they'll be
18 providing comments on that later today.
19 So our potential areas of concern and
20 recommendations. DFO has determined that the current
21 design for the double pipe exfiltration trench will
22 require a Fisheries Act authorization for the harmful
23 alteration, disruption, or destruction of fish habitat
24 because of the likely short and long-term disturbances
25 that will occur during the construction, operation,

1 maintenance, and decommissioning of the pipes.
2 Prairie Creek is known to be migratory and
3 likely overwintering habitat for bull trout, which is a
4 species that may be at risk in the territory, as well as
5 used by other fish species, such as mountain whitefish
6 and slimy sculpin for their various life stages.
7 Construction of the exfiltration trench
8 will require the excavation of the bed and banks of
9 Prairie Creek near the catchment pond and could cause
10 increased sedimentation, interruption of fish movements
11 during construction, and disruption in and around the
12 construction site.
13 Despite CZN's commitments to use best
14 practices for the construction of the exfiltration
15 trench, DFO still has outstanding concerns that impacts
16 to fish and fish habitat have not been adequately
17 assessed.
18 DFO has stated during the environmental
19 assessment process that downstream impacts need to be
20 adequately assessed before an authorization for the
21 proposed outfall and associated works would be
22 considered. As part of DFO's authorization DFO will
23 require that CZN provide a detailed fish habitat
24 assessment in and around the trench, as well as
25 conceptual designs, mitigation measures, and a no-net-

1 loss plan to offset impacts to fish and fish habitat.
2 DFO will also have monitoring requirements for both the
3 exfiltration trench and success of the no-net-loss works.
4 In addition to the construction of the
5 effluent out -- outfall, DFO lacks sufficient information
6 to make a determination of potential impacts for the
7 operation of the effluent outfall system on fish and fish
8 habitat. Some of the outstanding information that was
9 requested during the environmental assessment includes
10 sedimentation at the site of discharge, potential change
11 in flow and temperature regimes in pra -- Prairie Creek,
12 and potential impacts to fish passage and overwintering
13 habitat.
14 As part of our authorization, DFO will be
15 requiring that CZN provide a monitoring plan for specific
16 parameters to ensure fish passage such as temperature,
17 flow, and total suspended solids parameters are
18 addressed.
19 With respect to the access road,
20 outstanding concerns remain to the mobilization of
21 sediment through runoff and erosion. These concerns
22 pertain to erosion at stream crossings, particularly in
23 vulnerable areas such as those with permafrost, runoff
24 from winter access road at freshet or during a large
25 precipitation event, annual removal of the ice crossings,

1 and annual closure of the winter access road, ensuring
2 that adequate sediment and erosion control measures are
3 in place and properly functioning.
4 DFO has requested that a draft sediment
5 and erosion control plan be provided during the
6 environmental assessment. We have not received this
7 information to date.
8 Due to the lack of baseline information provided for the
9 road, DFO has assumed that all -- that fish use all
10 streams crossed by the winter access road.
11 THE CHAIRPERSON: Can I interject? Or
12 maybe if you don't mind slowing just a bit more.
13 MS. BEVERLEY ROSS: Sure.
14 THE CHAIRPERSON: Please.
15 MS. BEVERLEY ROSS: My apologies.
16 THE CHAIRPERSON: Thank you.
17 MS. BEVERLEY ROSS: To protect the bed
18 and banks of the streams CZN has committed to using
19 temporary bridges and snow and ice fills for all
20 crossings. This has addressed some of DFO's concerns
21 around maintaining the integrity of the bed and banks of
22 streams. CZN has also committed to protecting the bed
23 and banks of streams crossed either with ice or matting
24 (phonetic) and that's in their commitment table provide
25 on May 8th of 2011.

1 DFO is of the opinion that vulnerable
2 locations should be identified during the planning phases
3 and a plan to take immediate action be developed if
4 inspections indicate that sediment and erosion are
5 occurring. Therefore we recommend that CZN follow DFO's
6 operational statements for temporary crossings, clear
7 span structure, ice bridges, and snow fills. We also
8 recommend that CZN develop a comprehensive sediment and
9 erosion control plan to the satisfaction of DFO prior to
10 construction of the road.
11 I'm now going to speak to water
12 withdrawals. CZN will require water to -- in order to
13 construct the winter road and stream crossings. The road
14 will be built seasonally and will require maintenance
15 throughout the operational period. DFO has requested at
16 all IR stages that CZN identify the locations of water
17 withdrawals and amounts of water to be withdrawn from
18 those locations to determine if quantities of water taken
19 from various locations would result in impacts to fish
20 habitat through oxygen depletion, loss of overwintering
21 habitat, and reduction of littoral near shore habitat.
22 Throughout the assessment multiple water
23 bodies and water courses have been listed as potential
24 water sources for the construction and maintenance of the
25 winter road and crossings. These include groundwater

1 upwelling or groundwater-fed systems as potential water
2 sources. CZN has committed to using DFO's protocols for
3 winter water withdrawal from ice covered water bodies in
4 the Northwest Territories.
5 DFO has outstanding concerns related to
6 water withdrawals and cannot predict the potential
7 impacts to fish and fish habitat without additional
8 information from CS -- CZN such as the finalized
9 locations of water withdrawal sources, the bathymetry of
10 the lakes from which the water would be withdrawn, and
11 the quantity of water to be withdrawn in any given lake.
12 DFO has also advised CZN that our water
13 withdrawal protocol only applies -- only applies to lakes
14 and that additional information is required if water
15 withdrawal is proposed from streams or rivers. If
16 streams are proposed as water sources they must be
17 reviewed by DFO. CZN has committed to contacting DFO
18 prior to removing water from any streams or rivers.
19 Throughout the assessment CZN then has
20 provided little information on the locations of aggregate
21 sources. Maps have been provided that suggest that
22 additional spur roads may be required and that ag -- and
23 that aggregate sources were located adjacent to streams
24 and rivers.
25 CZN has indicated that while no additional

1 spur roads are required, it's -- the exact locations and
2 quantities of aggregate sources are not known at this
3 time. However, they have provided assurances that
4 aggregate sources will not be taken from below the high
5 water mark of streams and rivers. DFO acknowledges CZN's
6 commitment to only use aggregate sources above the high
7 water mark of streams and that they will not be crossing
8 any streams to access the aggregate sources.
9 Okay. Finally, our last two (2)
10 recommendations to the Review Board concern the
11 development of an aquatic effects monitoring plan and a
12 closure and reclamation plan.
13 Development and implementation of an
14 aquatic effects monitoring plan should lead to measurable
15 and defensible results that assess changes occurring in
16 Prairie Creek. In order to be effective, acceptable
17 thresholds, triggers, and actions need to be identified.
18 A robust aquatic effects monitoring plan should be
19 conducted within an adaptive management framework so that
20 appropriate actions can take place quickly and
21 effectively. A multitrophic ecosystem approach should be
22 used within the aquatic effects monitoring plan and it
23 should be developed to the satisfaction of DFO and other
24 regulators. This may be done in the regulatory phase.
25 There are also a number of concerns

1 related to closure of the Prairie Creek Mine. Some of
2 these include the permanent closure of the winter access
3 road and decommissioning of it, sediment and erosion
4 control on the site and, for example, the collection pond
5 that was below the waste rock pile, and culvert removal
6 at the mine site.
7 DFO recommends that a comprehensive
8 closure and reclamation plan be developed in consultation
9 and to the satisfaction of DFO and other regulators. The
10 closure and reclamation plan should be developed in
11 accordance with applicable guidelines and may be done in
12 the regulatory phase.
13 That's DFO's submission to the Board for
14 today. Thank you very much, Mr. Chair and panel.
15 THE CHAIRPERSON: Thank you. Thank you
16 for your presentation.
17
18 QUESTION PERIOD:
19 THE CHAIRPERSON: I'm going to go to the
20 parties here that could put questions to you in regards
21 to your presentation. I'm going to go to Nahanni Butte
22 Dene Band. Peter Redvers...?
23 MR. PETER REDVERS: Peter Redvers with
24 Naha Dehe Dene Band. Just one (1) question on the first
25 set of information relating to some of the information

1 that's missing in terms of DFO's ability to assess the
2 significance of impacts.
3 In -- from your perspective, when do you,
4 or will that information be required? Is it required as
5 a component of this EA process or, given that you do pro
6 -- give the authorizations, is it reasonable to expect or
7 call for that information prior to the actual application
8 for the authorizations?
9 THE CHAIRPERSON: Okay. Thank you.
10 MS. BEVERLEY ROSS: Typically --
11 THE CHAIRPERSON: I'm sorry, I'll go to
12 DFO.
13 MS. BEVERLEY ROSS: Sorry. Bev Ross,
14 Fisheries and Oceans. Typically it's our preference to
15 receive that information during the environmental
16 assessment process as it better allows us to advise the
17 Board on the potential impacts to fish and fish habitat.
18 With respect to the information that we are requesting,
19 we will be able to use that information in the regulatory
20 phase as well and we do have the ability through our
21 regulatory instruments to require certain mitigation
22 measures and monitoring.
23 The one (1) thing I think that is a little
24 bit more of a challenge in this particular case is that
25 the amount of information that we have right now, and

that the design of the outfall has changed a few times, and could potentially be mitigated further, is that at the end of the day in an ideal situation an authorization wouldn't be required at all. So if the impacts can be fully mitigated we may not need to issue any authorizations.

THE CHAIRPERSON: Thank you. Dehcho First Nation...? I'm sorry, Nahanni Butte Dene Band...?

MR. PETER REDVERS: Peter Redvers. I guess I'll be more specific then. Would -- would the lack of information and the -- the lack of, as you stated, your ability to identify significance of -- of impacts hold up or the -- the conclusion of the EA process, or can you reasonably pick that up as part of the regulatory phase through your authorizations or application for authorizations?

THE CHAIRPERSON: Thank you, Mr. Redvers. I'll go back to DFO.

MS. BEVERLEY ROSS: I think the nature of the potential impacts, for the most part, can be managed within our authorization process.

THE CHAIRPERSON: Thank you. Any further questions from Nahanni Butte Dene Band?

MR. PETER REDVERS: Peter Redvers. No further questions.

1 THE CHAIRPERSON: Thank you. I'm going
2 to go on to Parks Canada. Anybody here from Parks Canada
3 want to make questions to DFO on their presentation?
4 MS. KATHERINE CUMMING: Katherine
5 Cumming, Parks Canada. No questions, Mr. Chair.
6 THE CHAIRPERSON: Thank you. I'm going
7 to go to the Dehcho First Nation. Anybody here or Mr.
8 Acorn have a question to the DFO?
9 MR. JOE ACORN: Joe Acorn, DFN. I guess
10 something that I don't see in DFN's technical report is
11 the context of this project. Within an EA it co -- where
12 the -- the setting of the project, I think it matters
13 with regards to the -- the mitigation that's applied, the
14 impacts that are expected, the -- the concern that
15 surrounds a project.
16 If you take a pipeline and you want to run
17 it through a suburban neighbourhood, the impact analysis
18 will be different than if it was running through a
19 farmer's field out in Irant (sic) somewhere. So the
20 context here is we got a mine site surrounded by a
21 national park. We got a road going through a national
22 park. It's a world historic site. It's a Canadian
23 Heritage river.
24 I see that context permeate Parks Canada's
25 submission, INAC's submission, and to a lesser extent,

1 from other departments. I don't see that at all in
2 DFO's. DFO simply seems to have taken very much a
3 business-as-usual approach and that, reading this report,
4 it could apply to any mining project anywhere in Canada.
5 And the context of the national park and the world
6 historic site, I don't see that being brought into your
7 recommendations anywhere.
8 And if I'm wrong about that could you
9 explain to me how that context was brought into your
10 report?
11 THE CHAIRPERSON: Thank you. I'm going
12 to go over to DFO in response to the question.
13
14 (BRIEF PAUSE)
15
16 MR. PETE COTT: Hi. This is Pete Cott,
17 from Department of Fisheries and Oceans. And I thank Joe
18 for highlighting the fact that we're consistent in our
19 approach for managing fish and fish habitat throughout
20 different sectors and throughout the territory. So
21 that's what we endeavour to do.
22 That in -- in mind, we did look at the
23 site specific characteristics of the creek and particular
24 species, some of which are sensitive cold water species,
25 like bull trout, in the creek. And there is actually

1 ongoing research right now looking at the movements of
2 bull trout and other species in association with the --
3 with the diffuser and the -- the -- around the project
4 area.
5 THE CHAIRPERSON: Thank you. I'm going
6 to go back to Dehcho First Nation. Mr. Acorn...?
7 MR. JOE ACORN: Joe Acorn. So then I
8 guess you would agree then that there's nothing in your
9 recommendations that would take into account the sort of
10 special status of this area?
11 THE CHAIRPERSON: Thank you. I'll go
12 back to DFO.
13 MS. BEVERLEY ROSS: I would say it's to
14 Parks Canada to identify the importance of the park and
15 the particular matters that pertain to it. We did look,
16 as Pete says, at the specifics of the site in respect of
17 the species that were there and their sensitivity to the
18 potential impacts.
19 THE CHAIRPERSON: Thank you. I'll go
20 back Dehcho First Nations. Joe Acorn...?
21 MR. JOE ACORN: Joe Acorn. All right, so
22 following along there then, the specifics here is that
23 the -- the site specific water quality objectives haven't
24 really been set. There's obviously significant
25 differences of opinion between Zinc -- Canadian Zinc and

1 DIAND. We don't know what the effluent quality is going
2 to be.
3 How exactly have you been able to
4 determine the impacts upon the fish species in the river
5 given that we don't know exactly what the effluent was be
6 -- will be and we don't what the -- what the site
7 specific water quality objectives will be?
8 THE CHAIRPERSON: Thank you. I'm going
9 to go back to DFO response.
10 MS. BEVERLEY ROSS: We had mentioned
11 early in our presentation that Environment Canada advises
12 DFO with respect to impacts to water quality. So we
13 would be depending on their advice prior to our issuance
14 of any authorizations. And they'll be speaking to the
15 water quality impacts later today.
16 THE CHAIRPERSON: Thank you. Dehcho
17 First Nation, Joe Acorn...?
18 MR. JOE ACORN: You specific --
19 specifically say you rely on the advice from Environment
20 Canada. Why are you not relying on the advice of Indian
21 and Northern Affairs Canada, because there's quite
22 obviously a difference of opinion between Environment
23 Canada and INAC over the water quality issues? So I
24 don't understand why you're choosing the Environment
25 Canada approach and relying on them for your expertise

1 when INAC has obviously put a lot of work into the water
2 quality for this EA, as well.
3 MS. BEVERLEY ROSS: There is an --
4 THE CHAIRPERSON: Thank you.
5 MS. BEVERLEY ROSS: -- administrative
6 agreement -- oh, sorry.
7 THE CHAIRPERSON: Sorry. Go ahead.
8 Thank you, Mr. Acorn. I'll go back to DFO.
9 MS. BEVERLEY ROSS: Bev Ross, Fisheries
10 and Oceans Canada. I'll just point to an administrative
11 agreement between the Minister for Environment Canada and
12 the Minister for Fisheries and Oceans and in that
13 agreement it identifies Environment Canada as
14 administering section 36 of the Fisheries Act which is
15 that part of the Act that speaks to water quality is
16 respect of fish and fish habitat.
17 THE CHAIRPERSON: Thank you. I'll go
18 back to Dehcho First Nation, Joe Acorn.
19 MR. JOE ACORN: Joe Acorn. Could you
20 file that agreement? I'd like to see that.
21 THE CHAIRPERSON: Thank you. Response
22 to the question, DFO?
23 MS. BEVERLEY ROSS: Can I get back to the
24 Board on that?
25 THE CHAIRPERSON: I'll -- I'm going to

1 turn it over to my legal counsel for the Review Board,
2 John, Mr. John Donihee.
3 MR. JOHN DONIHEE: John Donihee. Why do
4 you need to get back to the Board on it? Do you have the
5 agreement? Is it hard to find?
6 MS. BEVERLEY ROSS: I don't know, you
7 know.
8 THE CHAIRPERSON: DFO...?
9 MS. BEVERLEY ROSS: So I will undertake
10 to respond back to the Board on the MOU between
11 Environment Canada and DFO and provide it to the Board as
12 available.
13 THE CHAIRPERSON: Thank you. Mr. John
14 Donihee...?
15 MR. JOHN DONIHEE: Thank you, Mr.
16 Chairman. John Donihee. It -- it would really be easier
17 if you just undertook to file it. It clearly has to
18 exist since it's guiding the relationship between your
19 department and Environment Canada. And there's at least
20 two (2) lawyers from Justice Canada here in the room that
21 probably could help you out if you needed that.
22 So again, have -- you know, having you get
23 back to the Board later doesn't let -- really let us know
24 what we're going to end up with on the record. So if you
25 don't want to file it, you know, just tell us. But if

1 you have -- have it and it will help, it would really be
2 useful to have you file it in the next week or ten (10)
3 days.
4 MS. BEVERLEY ROSS: We'll agree to do
5 that.
6 THE CHAIRPERSON: Thank you. I'll go
7 back to DFO.
8 MS. BEVERLEY ROSS: We'll agree to do
9 that. DFO will file the agreement.
10 THE CHAIRPERSON: I missed that. Can
11 you repeat that?
12 MS. BEVERLEY ROSS: Sorry. Yes, DFO will
13 agree to the undertaking.
14 THE CHAIRPERSON: Okay. Thank you.
15 Well, then having said that then we're going to -- I'll
16 suggest that we have an undertaking taken by July 8, 4
17 p.m.
18 Would that be sufficient time to have this
19 filed?
20 MS. BEVERLEY ROSS: I believe so, yes.
21
22 --- UNDERTAKING NO. 3: DFO to provide the MOU
23 Agreement between Environment
24 Canada and DFO by July 8th,
25 2011

1 THE CHAIRPERSON: Thank you. I'm going
2 to go back to Dehcho First Nation, Mr. Joe Acorn. Any
3 further questions?
4 MR. JOE ACORN: Joe Acorn. All right.
5 The next topic then, I guess, the -- Canadian Zinc's
6 proposing to use an additional dilution zone. And one
7 (1) of the requirements of an IDZ is that there be a zone
8 of safe passage for fish.
9 Now what standards or guidelines,
10 whatever, has DFO applied to this situation to assess
11 what Canadian Zinc is proposing to determine whether or
12 not the zone of safe passage that Canadian Zinc has put
13 forward is adequate, big enough for the fish species
14 present and for the size of the Prairie Creek?
15 THE CHAIRPERSON: Thank you. I'll go
16 back to DFO.
17
18 (BRIEF PAUSE)
19
20 THE CHAIRPERSON: Can we get a response
21 to the question?
22
23 (BRIEF PAUSE)
24
25 MS. LORRAINE SAWDON: Thank you.

1 Lorraine Sawdon, with Fisheries and Oceans. We have
2 asked Canadian Zinc to provide some information on
3 ensuring that fish would be able to pass -- pass the
4 diffuser and up to Funeral Creek. I think most of you
5 have heard us talk about bull trout spawning in Funeral
6 Creek and its importance.
7 There is some uncertainty about some of
8 the information we have received, and that is why we are
9 recommending that as part of the authorization we would
10 require monitoring of different parameters that would
11 ensure that fish are passing past the diffuser and are
12 continuing on their normal migratory routes and use of
13 the habitat in their normal ways.
14 THE CHAIRPERSON: Okay, thank you. I'm
15 going to go back to the Dehcho First Nation, Joe Acorn.
16 MR. JOE ACORN: Very good. So couldn't -
17 - you're saying there really is no standard or guideline
18 for the size of a zone of safe passage and that -- in a
19 way, it sounds like you're using this project as a bit of
20 an experiment to find out what an acceptable zone of safe
21 passage is rather than defining what it should be,
22 applying it, and then monitoring it.
23 THE CHAIRPERSON: Thank you, Mr. Joe
24 Acorn. I'm going to go back to the DFO. Response?
25 MS. BEVERLEY ROSS: Bev Ross, Fisheries

1 and Oceans Canada. We do typically do a site specific
2 investigation when it comes to issues like this. We
3 don't have a recipe book because different species in
4 different environments have different life history
5 requirements.
6 So to some degree we need to know
7 something about the environment that they're living in,
8 and then be looking at them with respect to what their
9 needs are for that. That would require some additional
10 monitoring usually and some site specific assessment.
11 Pete did also mention there has been some
12 study of bull trout in this region. That's one (1) of
13 the species that we're particularly interested in. So
14 there is information that DFO can draw upon when we're
15 doing our assessment.
16 But we don't have site specific
17 information for all sites, for all species, for all life
18 stages, and that probably isn't possible.
19 THE CHAIRPERSON: Thank you. I'm going
20 to back to Dehcho First Nation, Joe Acorn. I guess the
21 question I have is how many more question do you have?
22 MR. JOE ACORN: It kind of depends on
23 their answers. Probably another five (5) or six (6),
24 anyway, so. Joe Acorn.
25 THE CHAIRPERSON: Please proceed.

1 MR. JOE ACORN: Sorry, I forgot what I
2 was thinking there. So then -- basically then you can't
3 sit here now and say to us that you can be reasonable
4 confident or assured that the zone of safe passage as
5 proposed by Canadian Zinc will actually be a zone of safe
6 passage.
7 What you're proposing is that you're going
8 to let them go ahead and do what they're proposing. And
9 then afterwards you'll try and find out what the impacts
10 are, but you're not at this time being ab -- you can't
11 right now say that the zone of safe passage will work as
12 proposed.
13 Is that correct?
14 THE CHAIRPERSON: Thank you. I'm going
15 to go back Dehcho -- sorry, DFO.
16 MS. BEVERLEY ROSS: What we would be
17 looking for from the proponent is some site specific
18 information on where they're building the effluent
19 outfall, how they're going to design it, how they're
20 going to monitor it, and then what measures they're going
21 to take to ensure fish passage.
22 We would then be reviewing that. And if
23 those measures appear to be satisfactory to DFO, then we
24 could proceed with approvals. The monitoring and
25 adaptive management would include measures that if it was

1 indicated that fish were not getting through that area,
2 then there would need to be measures taken to ensure that
3 they could.
4 MS. LORRAINE SAWDON: In addition, if the
5 diffuser, as proposed, is to proceed, if the project is
6 given approvals, an authorization -- part of the
7 authorization process would be working through some of
8 these issues in more detail.
9 The double piped exfiltration trench was
10 provided to us fairly recently. And I think that we
11 would be working with Canadian Zinc to get some more
12 clarity on these answers so that we are confident, as
13 well.
14 A lot of this, as well, ties into some of
15 the water quality issues, and I understand other
16 departments are going to be speaking to those. If those
17 are resolved, the concern of safe passage may no longer
18 be a concern.
19 THE CHAIRPERSON: Thank you. Dehcho
20 First Nation, Joe Acorn...?
21 MR. JOE ACORN: The -- I guess my concern
22 is that once this exfiltration trench is buried in the
23 creek bed, I mean, the -- the width of the trench is what
24 it is. The pipe is going to be there.
25 So, I mean, you say you'll deal with it

1 afterwards. Well, there's only so much room in the width
2 of the creek bed, and if there's only say 1 metre left as
3 a zone of safe passage, and you're monitoring determines
4 that that 1 metre is not sufficient to allow fish
5 passage, what are your options then?
6 Are your options then to order Canadian
7 Zinc to dig up the exfiltration trench, and put in a
8 shorter one, or can it be blocked to make sure that the
9 plume is narrower?
10 I'm not -- I'd like to have a better idea
11 of what you see your options are if the zone of safe
12 passage as proposed doesn't work.
13 THE CHAIRPERSON: Thank you. Over to
14 DFO.
15
16 (BRIEF PAUSE)
17
18 MS. LORRAINE SAWDON: Thank you.
19 Lorraine Sawdon, Fisheries and Oceans. Again, I think if
20 the water quality issues are addressed, then our zone of
21 safe passage is also addressed.
22 I think that's as far as I can go on that
23 one. Thank you.
24 MS. BEVERLEY ROSS: If there are other
25 physical impediments to fish passage, I think the risk is

1 such that there will be measures that can be taken, and
2 that will be discussed in the authorization process.
3 THE CHAIRPERSON: A quick question before
4 we go back to Joe. The lady in the middle, can you state
5 your name again? I --
6 MS. BEVERLEY ROSS: I'm sorry, Bev Ross,
7 Fisheries and Oceans Canada, and --
8 MS. LORRAINE SAWDON: Lorraine Sawdon,
9 DFO.
10 THE CHAIRPERSON: Thank you. I'm going
11 to go back to Dehcho First Nation, Joe Acorn.
12 MR. JOE ACORN: Joe Acorn. All right, so
13 -- all right, let's go back to the chemistry then.
14 The fact right now is that the -- the
15 water chemistry is uncertain. We don't know what the
16 standards will be. We don't know what the effluent
17 quality will be. There's differences of opinion between
18 Environment Canada, Canadian Zinc, Indian and Northern
19 Affairs Canada.
20 And -- and I look again at your
21 Recommendation number 1, which is that you recommend that
22 Canadian Zinc provided a detailed fish habitat
23 assessment.
24 Now I'm wondering how DFO can sit here and
25 reasonably say what you think the impacts on fish will or

1 won't be if right now you don't know what the water
2 chemistry will be, and apparently you're not happy with
3 the fish habitat assessment.
4 So without a fish habitat assessment and
5 without knowing the water chemistry, how can you have any
6 idea right now as to what the impacts on fish species
7 will be?
8 MS. BEVERLEY ROSS: I think our
9 recommendation --
10 THE CHAIRPERSON: Thank you.
11 MS. BEVERLEY ROSS: Oh, sorry.
12 THE CHAIRPERSON: I'm going to go back to
13 DFO in response.
14 MS. BEVERLEY ROSS: Bev Ross, Fisheries
15 and Oceans Canada. I think our recommendation says
16 "should the project proceed."
17 So before we undertake further
18 consideration of the authorization we will be looking to
19 our federal colleagues to ensure that the water quality
20 issues have been addressed.
21 I don't think there's more that we can
22 tell you about that. The water quality issues fall to
23 Environment Canada with respect to Section 36 of the
24 Fisheries Act, and we'll be relying on their advice.
25 Should they indicate to us that the water

1 quality issues are adequately addressed, then we would
2 con -- and the Board has indicated their approval of the
3 project, then we would require these additional pieces, a
4 detailed fish habitat assessment and appropriate
5 mitigation measures for construction of the outfall.
6 And that would be considered within the
7 authorization process.
8 THE CHAIRPERSON: Thank you. I'm going
9 to go back to Dehcho First Nation, Joe Acorn.
10 MR. JOE ACORN: Joe Acorn. The concern
11 I'm having here though is that we are at impact
12 assessment phase right now and you're recommending that
13 Canadian Zinc do a detailed fish habitat assessment. I'm
14 having some trouble understanding how you think you or
15 this Board can conclude what the impact assessment on
16 fish is when the fish habitat assessment hasn't even been
17 done.
18 It seems to me that the fish habitat
19 assessment would need to come first before you can look
20 at the assessment on fish.
21 So shouldn't this fish habitat assessment
22 be done not before the project proceeds, but within the
23 timeline of this EA process so that the Board has it to
24 make the impact assessment?
25 THE CHAIRPERSON: Thank you, Mr. Acorn.

1 Go to DFO in response to the question.
2 MS. BEVERLEY ROSS: Bev Ross, Fisheries
3 and Oceans Canada. I will point out that there has been
4 some fish habitat assessment. We would require
5 additional fish habitat assessment for the authorization
6 process. So we aren't working in a complete blank of
7 information.
8 We do have some information on the area.
9 We have some information on the species. We have some
10 information on their habitat requirements. Should the
11 project proceed, we would require more detailed
12 information in order to appropriately determine the
13 mitigation measures and monitoring for an authorization.
14 THE CHAIRPERSON: Okay. I think we're
15 coming to -- almost to the end of Joe's questions. So,
16 Joe -- I'm going to go back to you, Joe Acorn, Dehcho
17 First Nation.
18 MR. JOE ACORN: Joe Acorn. Okay. That
19 just seems to me like then you're advocating moving
20 forward on an incomplete habitat assessment and that
21 you're -- you're -- you're willing to take chances, I
22 suppose, with the aquatic quality and the fisheries in
23 Prairie Creek in the off chance that when you do the
24 detailed fish habitat assessment at some later point
25 it'll -- it'll prove to be okay. Or -- but we'll leave

1 that there for now.
2 My next question then concerns your
3 Recommendation number 2, which was that DFO recommends
4 fish passage be maintained at all times of the year and
5 that specific parameters be monitored and ensure fish
6 habitat, to ensure fish passage such as temperature flow
7 and total suspended solids.
8 Now this recommendation, ensure that fish
9 passage be maintained at all times of the year, that's
10 pretty generic. And I know if I was sitting there as a
11 Review Board member I'd be wondering what exactly it is
12 that you expect us to do here with this recommendation.
13 So are there specific actions or -- or
14 things you're thinking -- want the Review Board to do or
15 not do, or Canadian Zinc to do or not do to ensure that
16 fish passage is maintained at all times of the year?
17 I think to be a useful recommendation I
18 think it needs to be a little bit more specific than
19 this.
20 THE CHAIRPERSON: Thank you. I'll go to
21 DFO in response to Joe Acorn's question.
22
23 (BRIEF PAUSE)
24
25 MS. BEVERLEY ROSS: With this

1 recommendation we're letting the Board know that we would
2 be requiring a monitoring plan to ensure fish passage and
3 what we would expect to be in that plan.
4 THE CHAIRPERSON: Okay. Thank you. I'll
5 go back to Dehcho First Nation, Joe Acorn.
6 MR. JOE ACORN: Just a second.
7
8 (BRIEF PAUSE)
9
10 MR. JOE ACORN: Joe Acorn. Yeah, I think
11 that's good for me now, thanks.
12 THE CHAIRPERSON: Thank you, Mr. Acorn.
13 I'm going to go to Environment Canada. Is there any
14 questions for Fisheries and Oceans on their presentation?
15 MS. ANNE WILSON: Thank you. It's Anne
16 Wilson for Environment Canada. We have no questions.
17 THE CHAIRPERSON: Okay. Thank you. I'm
18 going to go to Natural Resources Canada. Is there any
19 questions for DFO on their presentation?
20 MR. FONS SCHELLEKENS: It's Fons
21 Schellekens for Natural Resources Canada. Natural
22 Resources Canada doesn't have any questions for DFO.
23 THE CHAIRPERSON: Thank you. I'm going
24 to go to Transport Canada. Any questions to the DFO on
25 their presentation?

1 MR. CHRIS AQUIRRE: It's Chris Aquirre,
2 from Transport Canada and <S> THE COURT CLERK: has no
3 further questions.
4 THE CHAIRPERSON: Thank you. I'm going
5 to go to Liidlii Kue First Nation. Any questions for the
6 DFO on their presentation?
7
8 (BRIEF PAUSE)
9
10 THE CHAIRPERSON: Okay. There doesn't
11 appear to be nobody here from Liidlii Kue First Nation.
12 I'm going to go to Canadian Zinc. Is there any questions
13 for DFO on their presentation?
14 MR. DAVID HARPLEY: Dave Harpley. Two
15 comments that I would like to make with respect to the
16 recommendations. The first one has to do with the -- the
17 IDZ and fish -- fish passage. I think largely in the
18 question and answer that's just transpired DFO have
19 pretty much answered it.
20 But just to reinforce it, I don't want to
21 put words into DFO's mouth, but as they've said, there is
22 habitat data both upstream and downstream of the proposed
23 exfil trench -- exfiltration trench location, and
24 specifically one (1) site very close to the trench,
25 proposed trench location where habitat data was

1 collected. So as they say, we certainly aren't in a
2 vacuum at this point in terms of applicable information.
3 The other point which I think is relevant
4 is that the whole point of putting in an exfiltration
5 trench is that it is a very effective way of mixing the
6 discharge with the creek water to minimize impacts. So
7 the -- the mere nature of the discharge mechanism, I
8 think, minimizes the issues regarding fish passage.
9 The second comment I wanted to make has to
10 do with the fifth recommendation by DFO regarding water
11 withdrawal. I have spoken to them in the break, and just
12 to clarify the meaning of the recommendation because it
13 ends with a discussion of indicating effects of draw
14 down, and it's my understanding that that is a
15 consideration when you cannot comply with the withdrawal
16 water protocol. And -- and provided you stay within the
17 protocol, there is not the requirement to indicate the
18 effect of draw down.
19 The other clarification I wanted to make
20 is, as far as a commitment from Canadian Zinc is
21 concerned, we clearly commit to provide the information
22 requested before we withdraw water. We -- we know we
23 have to pro -- provide that information. It's a
24 requirement.
25 We do want to at this point stop short of

1 committing to providing the data prior to the regulatory
2 phase. Most likely we will provide the information prior
3 to the regulatory phase and -- and remove the uncertainty
4 associated with that information, but we just want to
5 stop short of committing to it at this point until we've
6 determined our overall program and priorities.
7 Apart from those clarifications, we're
8 comfortable with all the other recommendations that have
9 been made.
10 THE CHAIRPERSON: Thank you. Thank you
11 for your comments. They're not questions, so I'm going
12 to continue on. Thank you. I'm going to go to -- the
13 next one on my list I have is the Government of Northwest
14 Territories comments to Fisheries and Oceans on their
15 presentation.
16 MR. GAVIN MORE: This is Gavin More,
17 Government of Northwest Territories. No, we have no
18 questions, Mr. Chair.
19 THE CHAIRPERSON: Okay, thank you. Did
20 you want to -- did Alan want to ask a question?
21 MR. DAVID HARPLEY: Dave Harpley. I'm
22 sorry, I didn't hear the question. My colleague was
23 talking to me.
24 THE CHAIRPERSON: Oh, sorry. No, I --
25 no, no, okay. I was -- I thought you guys were waving

1 there for a second. Okay, thank you. I'm going to go to
2 Indian and Northern Affairs Canada, questions to
3 Fisheries and Oceans on their presentation?
4 MR. ROBERT JENKINS: Thank you, Mr.
5 Chair. It's Robert Jenkins, with INAC. Barry Zajdlik
6 does have one (1) question for DFO.
7 MR. BARRY ZAJDLIK: Mr. Chair, my
8 question is: Can DFO comment on changes in accumulation
9 of metals in fish due to nutrient inputs from the mine?
10 THE CHAIRPERSON: Okay, thank you for
11 your question. I'm going to go over to Fisheries and
12 Ocean. Response?
13 MR. BEVERLEY ROSS: Mr. Chair, Bev Ross,
14 Fisheries and Oceans Canada. As I indicated earlier, the
15 Section 36, or the impacts of deleterious substances is
16 on the responsibility of Environment Canada to comment
17 on. So DFO can't provide that comment today.
18 THE CHAIRPERSON: Okay. Thank you. I'm
19 going to go back to Fish -- sorry, Indian and Northern
20 Affairs Canada. Response to...
21 MR. ROBERT JENKINS: Thank you, Mr.
22 Chair. It's Robert Jenkins with INAC. I guess we'll --
23 we'll save that question for -- for Environment Canada
24 then. So we have no further questions. Thank you.
25 THE CHAIRPERSON: Okay. Thank you. So

1 with that, we went through the list of orders for
2 questions. So I'm going to go through the Review Board
3 staff. And legal counsel, is there any questions for
4 Fisheries and Oceans?
5 MR. JOHN DONIHEE: It's John Donihee,
6 Board counsel. Thank you, Mr. Chairman. I have a couple
7 of questions.
8 First thing I'd like to have the
9 representatives of Fisheries and Oceans do, if they will,
10 is confirm that the clarifications of your evidence made
11 by Mr. Harpley actually are what you want to say.
12 He made some clarifications about some
13 things you'd talked about at the break. So are we -- you
14 know, is that an adequate indication of where you're at
15 with -- in particular, I think he talked about some of
16 your recommendations about draw-down.
17 THE CHAIRPERSON: Thank you, Mr.
18 Donihee. I'm going to go to Fisheries and Oceans Canada.
19 MS. BEVERLEY ROSS: In respect of the
20 water withdrawal, yes, that -- that was correct. If the
21 conditions that are outlined in the protocol can be met
22 then the additional measures aren't required.
23 THE CHAIRPERSON: Thank you. I'm going
24 to go back to Mr. Donihee.
25 MR. JOHN DONIHEE: Thank you, Mr.

1 Chairman. John Donihee. I just have one (1) other
2 question. And what I want to try to do is to summarize
3 where I -- I think we got to with the exchange between
4 Mr. Acorn and the DFO witnesses.
5 So here's my understanding of where you're
6 at and I wonder if you would just confirm whether you
7 agree with what I'm about to say.
8 It -- it seems to me that notwithstanding
9 the DFO concerns about data gaps and the need for further
10 work by the proponent to satisfy your regulatory needs
11 when we or if we get to that stage in this process, that
12 DFO is not predicting any significant environmental
13 impacts for matters within your jurisdiction and that
14 you're content to have this matter move on to the
15 regulatory level.
16 Is that -- would that be a fair way of
17 expressing your position?
18 THE CHAIRPERSON: Thank you, Mr.
19 Donihee. I'm going to go to Fisheries and Oceans Canada.
20 MS. BEVERLEY ROSS: With respect to
21 physical impacts to fish and fish habitat, DFO is
22 confident that we should be able to obtain the required
23 information from the proponent, we can require it through
24 the authorization process, and that the potential impacts
25 to fish and fish habitat can be managed with the

1 regulatory instruments that we have at hand.
2 THE CHAIRPERSON: Thank you. I'll go
3 back to Mr. Donihee, the Review Board legal counsel.
4 MR. JOHN DONIHEE: John Donihee. Thank
5 you, Mr. Chairman. Those are my questions.
6 THE CHAIRPERSON: Thank you. I'm going
7 to go to the Review Board staff.
8 MR. CHUCK HUBERT: No further questions,
9 Mr. Chair.
10 THE CHAIRPERSON: Thank you. I'm going
11 to go to my far right, Mr. -- Board member, Mr. Peter
12 Bannon.
13 MR. PETER BANNON: Peter Bannon. I have
14 at least one (1) question.
15 During the first day of the hearings, and
16 I don't think any of you were present, it was -- a matter
17 was raised that DIAND relies on a piece of evidence from
18 the technical -- or a traditional knowledge study that
19 says that there's a subsistence fishery in the mouth of
20 Prairie Creek, specifically gray -- grayling . It was
21 questioned by some of th local -- or one (1) local person
22 in Nahanni Butte.
23 My question is: Are you aware of a sub --
24 subsistence fishery for grayling in the mouth of Prairie
25 Creek?

1 THE CHAIRPERSON: Thank you, Mr. Bannon.
2 Go to Fisheries and Oceans Canada.
3 MS. LORRAINE SAWDON: Lorraine Sawdon,
4 Fisheries and Oceans. Through the Environmental
5 Assessment process and technical session it had come up.
6 Prior to that, no, we were not aware.
7 THE CHAIRPERSON: Thank you. Any
8 followup or questions, Mr. Bannon?
9 MR. PETER BANNON: You say it has come
10 up. Did it come up as -- in the context of a traditional
11 knowledge study, or other ver -- sources of verification?
12 THE CHAIRPERSON: Thank you, Mr. Bannon.
13 Fisheries and Oceans Canada...?
14
15 (BRIEF PAUSE)
16
17 MS. LORRAINE SAWDON: Thank you.
18 Lorraine Sawdon, Fisheries and Oceans. It was brought up
19 as a concern by one (1) of the participants in the -- in
20 the EA during a technical session. We have not been
21 provided with a technical or, sorry, a TK report.
22 THE CHAIRPERSON: Okay. Thank you. Any
23 further question, Mr. Bannon?
24 MR. PETER BANNON: I'd like to ask a
25 similar question that I asked of the developer yesterday,

1 and that's in regards to the mercury accumulation that
2 was identified in a study by Spencer (phonetic) in 2008
3 along Prairie Creek.
4 I -- I haven't -- I mentioned yesterday I
5 haven't read the study yet, but I will. But I was
6 wondering if you could offer -- or you'd be willing to
7 offer an explanation as to perhaps how this mercury
8 accumulation in the tissue of a sculpin has occurred, and
9 the validity of the -- the data, perhaps.
10 MS. BEVERLEY ROSS: I'll have to defer
11 again to Environment Canada on questions related to
12 contaminants. Bev Ross, Fisheries and Oceans.
13 THE CHAIRPERSON: Okay. Thank you.
14 Peter Bannon, did you want to follow up?
15 MR. PETER BANNON: I have no more
16 questions. Peter Bannon.
17
18 (BRIEF PAUSE)
19
20 THE CHAIRPERSON: Thank you. I'm going
21 to move on to Board member Danny Bayha. Any questions
22 for Fisheries and Oceans?
23 MR. DANNY BAYHA: Yes, thank you, Mr.
24 Chair. I had a couple questions, if I may.
25 For me, I think over the few days we've

1 been listening to the communities, as well as our Elders,
2 as well as the community leaders, that water quality is
3 the most important aspect of this development happening.
4 And for me, and from the questions that
5 Mr. Acorn has posed, and the answers we're getting, it's
6 a bit, for me, an eye opener in the sense of how things
7 actually do work.
8 Communities, First Nations, the average
9 person walking down the streets of Fort Simpson rely on
10 federal government departments like yourselves to assure
11 us some of the stuff -- some of the com -- some of the
12 things that the company is proposing is not going to have
13 an impact.
14 And if you guys can't do that, then I
15 don't know how you expect us to make that determination.
16 We depend on you, as a federal government department with
17 the resources, the expertise, to tell us beyond any doubt
18 that what the company is proposing is not going to have
19 an impact.
20 And so I think, for me anyway, from that I
21 think it's -- it's -- for me, I -- I'm a bit, you know --
22 for me, I've been on this Board for awhile, and this is -
23 - it's been a while since I've heard this sort of thing,
24 so it's good to know, on the public record, that this is
25 the case, how two (2) different departments work together

1 to achieve some of the things that the community is
2 concerned about, in this case, water quality, is -- is
3 paramount in this -- in this development.
4 So from that, I think the question I would
5 like to propose, you asked the company to provide -- and
6 if I can just add, you had about seven (7) different
7 plans that you want the company to provide.
8 Of those seven (7) plans, which ones would
9 you require before you expect the company, or what --
10 before the company actually starts operation? Thank you.
11 THE CHAIRPERSON: Thank you, Mr. Bayha.
12 Now we'll go to Fisheries and Oceans Canada.
13 Response...?
14 MS. BEVERLEY ROSS: We would require all
15 of the plans that we had requested prior to operation.
16 So an erosion and sediment control plan for the road
17 would be required before we would expect the company to
18 be operating, or constructing the road.
19 Similarly, some of the other plans, the
20 aquatic effects monitoring plan, we would like to see
21 that before they started impacting the aquatic
22 environment.
23 THE CHAIRPERSON: Thank you.
24 Mr. Bayha...?
25 MR. DANNY BAYHA: Thank you. Part of the

1 -- some of these you have a -- a few -- like I said, a
2 few different plans there you want company. Now some of
3 them would have -- you know, you would -- you would need
4 that, so a lot of these things you would expect to have
5 that before the -- during the regulatory phase or after,
6 so just before the actual company gets the permit you
7 would expect that.
8 And if -- and -- and suppose that some of
9 these plans really can't -- I mean what -- how can you
10 get that information if, for example, you need studies,
11 or whatever, I mean, or -- or certain baseline
12 information that you can't get until the actual company
13 is in -- is in -- the company can't provide because the
14 plan requires certain baseline information or whatever,
15 until after the operation of the -- of the company, and
16 this is actually in operation and they're actually
17 working on the ground and they're doing some of the
18 stuff.
19 So I -- I guess maybe it's in line with
20 some of Joe's concerns earlier, but if you could maybe
21 possibly clarify again for us, because I'm not exactly
22 clear how you will require that information, or who's
23 going to the collecting of that information. Thank you.
24 MS. BEVERLEY ROSS: Bev Ross, Fisheries
25 and Oceans Canada. I don't think any of the information

1 that we have been asking for -- we've been asking for it
2 throughout the EA process and I don't think any of it is
3 -- is impossible to get before the proponent starts
4 constructing and operating their project.
5 So we would require it ahead of any
6 authorizations that were issued and we don't think that
7 any of those requests are unreasonable or unobtainable.
8 THE CHAIRPERSON: Thank you.
9 Mr. Bayha...?
10 MR. DANNY BAYHA: Thank you. That's all
11 I have for now. Thank you.
12 THE CHAIRPERSON: Thank you, Mr. Bayha.
13 I'm going to go to Richard Mercredi.
14 MR. RICHARD MERCREDI: Yeah, thank you,
15 Mr. Chairman. I have no questions at this time. Thank
16 you.
17 THE CHAIRPERSON: Thank you, Mr.
18 Mercredi. I'll go to Ms. Crapeau, Rachel Crapeau, Board
19 member.
20 MS. RACHEL CRAPEAU: I did hear an
21 elderly lady and a young mother who was worried about her
22 mother's advice for her to watch out for the health of
23 the fish and other living organisms in the river system
24 because they rely on -- on fish.
25 And my understanding of traditional

1 knowledge of Elders is that in the winter there are
2 wintering grounds for the fish and they do move in the
3 spring and the fall time, and how -- you know, like, how
4 will their information be brought together with your
5 department and other people who are going to be looking
6 at the detailed fish habitat assessment and look at
7 appropriate mitigation measures to ensure that the Dene
8 this area will feel confident in the work that all the
9 departments are doing, because I felt like I wasn't
10 hearing the togetherness between all the departments.
11 And it makes me feel for the elders who
12 were wanting to know about what's going to be going into
13 -- into the water and especially to make sure that no
14 deleterious substance goes into the river system.
15 So are we going to find out from DFO
16 sometime soon that you've all sat down together and --
17 and -- and worked out a plan on how thi -- this
18 information is going to be gathered, and is everybody
19 waiting for each other, or is there some Elder, DFO
20 advisor, that will say, Okay, the -- this is the plan,
21 this is what we're going to do. What are we waiting for?
22 THE CHAIRPERSON: Thank you, Ms.
23 Crapeau. I'm going to go to Fisheries and Oceans Canada
24 in response to the question.
25 MS. BEVERLEY ROSS: I think I heard a few

1 questions in there. But if -- if I'm missing something
2 you can come back to me on it. It's Bev Ross from
3 Fisheries and Oceans.
4 First of all, we do very much appreciate
5 that the communities value fish and fish habitat and that
6 we're in full agreement from our department's perspective
7 on that.
8 With respect to -- and I'm know I'm -- I'm
9 sounding a bit repetitive here, but there are other
10 departments that are looking after the water quality
11 aspects of this proposal and we do defer to their
12 expertise on that.
13 Then you were asking, I believe, about
14 whether we would be waiting or listening to their advice
15 and -- and absolutely we will. That's one (1) of the
16 things that we've stated within our presentation is that
17 we wouldn't consider issuing an authorization until we
18 were of the understanding that we wouldn't be authorizing
19 something that would introduce deleterious substances
20 that would be harmful to the fish.
21 I think -- did I miss any aspects of that?
22 I guess, I can ask --
23 THE CHAIRPERSON: Thank you. I'm going
24 to go back to Ms. Rachel Crapeau, Board member.
25 MS. RACHEL CRAPEAU: The detailed fish

1 asse -- habitat assessment and pro -- the appropriate
2 mitigation measures, how are you going to make sure that
3 everyone involved contributes to the solutions to how to
4 mitigate possible impacts or something that could happen?
5 I just want to know if -- if you're going
6 to be sitting with Environment Canada people, INAC, water
7 resources people, the Dehcho, Nahanni Butte, you know,
8 the TK Elders? How is this -- the measures going to be
9 developed? Are you going to develop it alone as DFO, or
10 with the help of others?
11 THE CHAIRPERSON: Thank you, Ms.
12 Crapeau. I'll go to Fisheries and Oceans Canada.
13 MS. BEVERLEY ROSS: With respect to the
14 authorizations that DFO could potentially issue we would
15 want to know that the communities', aboriginal
16 communities' issues had been addressed and that we
17 weren't impacting on Treaty and Aboriginal rights, so
18 that's a requirement that we would have within the
19 authorization process.
20 We would be looking to the proponent to
21 gather certain kinds of information with respect to the
22 fish habitat assessment and incorporate that in. That
23 said, we would then be wanting to go back and assure
24 ourselves that Aboriginal communities had been adequately
25 consulted within that process before we issued any

1 approvals.
2 THE CHAIRPERSON: Okay. Thank you. I'm
3 going to go to Ms. Rachel Crapeau, Board member.
4 MS. RACHEL CRAPEAU: Thank you. That's
5 it for my questions.
6 THE CHAIRPERSON: Okay. Thank you. I'm
7 going to go to Board member, Percy Hardisty.
8 MR. PERCY HARDISTY: Mahsi, Mr. Chair. I
9 don't have any questions.
10 THE CHAIRPERSON: Thank you. I'm going
11 to go to Board member, James Wah-Shee.
12 MR. JAMES WAH-SHEE: Thank you, Mr.
13 Chair. Just one (1) question.
14 The -- in regards to your review of the
15 project and your recommendations, I wonder if you
16 utilized the traditional knowledge in the Prairie Creek
17 area, as well, whether the department is in close
18 consultation with the people in the communities,
19 particularly those communities that have potential
20 impact? Thank you.
21 THE CHAIRPERSON: Thank you, Mr. Wah-
22 Shee. I'm going to go to Fisheries and Oceans Canada.
23 Response?
24 MS. LORRAINE SAWDON: Lorraine Sawdon,
25 Fisheries and Oceans. We have not used formal TK or

1 received a TK report in our assessment. However we have
2 been doing some research on Funeral Creek, Prairie Creek,
3 specifically related to bull trout. That study has been
4 done with the help of Nahanni Butte and they've been
5 involved in that. And it's a study that we're hoping to
6 continue this summer. And again, Nahanni Butte would be
7 involved in that, I think.
8 THE CHAIRPERSON: Thank you. I'm going
9 to go to Mr. James Wah-Shee for any further questions.
10 MR. JAMES WAH-SHEE: In regards to your
11 reply, I take it that it's the affirmative that you are
12 working in close cooperation with the community of
13 Nahanni Butte and Fort Simpson, for instance.
14 That was the question. Thank you.
15 THE CHAIRPERSON: Thank you. Response
16 to the question, plain language.
17
18 (BRIEF PAUSE)
19
20 MS. LORRAINE SAWDON: Lorraine Sawdon,
21 Fisheries and Oceans. We are working with Nahanni Butte.
22 Thank you.
23 THE CHAIRPERSON: Thank you.
24 MS. BEVERLEY ROSS: And -- Bev Ross,
25 Fisheries and Oceans. If I can just add to that. Again,

1 with respect to site specific assessments and information
2 in relation to this project we would expect the proponent
3 to also be gathering information that would contribute to
4 the information that we're reviewing and that information
5 could also include traditional knowledge.
6 THE CHAIRPERSON: Thank you. I'm going
7 to go back to Mr. James Wah-Shee.
8 MR. JAMES WAH-SHEE: Mr. Chair, thank
9 you. I have no further questions. Thank you.
10 THE CHAIRPERSON: Thank you. I'm going
11 to go to Mr. Darryl Bohnet, Board member.
12 MR. DARRYL BOHNET: Thank you, Mr. Chair.
13 My question is quite similar to our learned leg -- legal
14 counsel.
15 Does DFO have confidence that they have
16 the tools through their Fisheries Act and Regulations and
17 the terms and conditions of land use permits and water
18 licences that are issued through the Mackenzie Valley
19 Land and Water Board to minimize significant adverse
20 environmental effects on fish and fish habitat for this
21 project?
22 THE CHAIRPERSON: Thank you, Mr. Bohnet.
23 I'll go to Fisheries and Oceans Canada.
24 MS. BEVERLEY ROSS: Bev Ross, Fisheries
25 and Oceans Canada. I believe that if our recommendations

1 are implemented that we will have the tools to proceed
2 with our regulatory instruments and that those will be
3 adequate to address the impacts, the potential impacts of
4 this project and manage the uncertainty around those
5 impacts.
6 THE CHAIRPERSON: Okay. Thank you. I'm
7 going to go back to Mr. Darryl Bohnet.
8 MR. DARRYL BOHNET: Thank you. No
9 further questions.
10 THE CHAIRPERSON: Okay. That concludes
11 --
12 MR. DAVID HARPLEY: Mr. Chair...?
13 THE CHAIRPERSON: Yes. Sorry.
14 MR. DAVID HARPLEY: May I be -- may I be
15 permitted to add one (1) more point.
16 THE CHAIRPERSON: Sure. One (1)
17 question.
18 MR. DAVID HARPLEY: It's David Harpley.
19 I just wanted to add a couple of comments regarding the
20 questions that arose regarding the fishery at the mouth
21 of Prairie Creek. It certainly was noted in the Nahanni
22 Butte TK addendum that there is documentation of fishing
23 occurring at the mouth of Prairie Creek.
24 We've had some discussion with community
25 members and our impression is that perhaps subsistence is

1 a little bit misleading. Certainly they -- they have
2 fished there in the past and they may still do so, but it
3 might be perhaps better characterized as a recreational
4 fishery.
5 And it's also our understanding that the
6 fish that are the primary object of that fishing are
7 grayling. And I just wanted to point out that, as far as
8 we're aware, and with all the studies that have been
9 undertaken to date in the -- in the catchment, grayling
10 are not able to migrate up to the mine area. There must
11 be some impediment during spring -- springtime to prevent
12 that migration, but there's no documented occurrence of
13 grayling in the upper Prairie Creek catchment.
14 THE CHAIRPERSON: Thank you for your
15 comments. There's no need for a response on that. Well,
16 I guess there's one (1) more comment, but I'll allow one
17 (1) more and then we're going to continue.
18 So go ahead, Peter Redvers, one (1)
19 question.
20 MR. PETER REDVERS: Peter Redvers, Naha
21 Dehe Dene Band. I thought I better add a comment, given
22 that this is a discussion about information that is based
23 on work done with my client.
24 Two (2) points: one (1), the issue
25 relating to that fishery was to do with bioaccumulation,

1 which is the deleterious substance, which is really not a
2 Department of Fisheries and Oceans issue; secondly, as
3 noted in the most recent submission of the Naha De --
4 Dehe Dene Band, that, as the issues relating to the
5 potential for contamination are addressed, and we're
6 hoping that there will be some movement on that following
7 through the negotiations or discussions between AANDC and
8 Canadian Zinc, that that matter would be addressed and --
9 and will be addressed as the water issue is addressed.
10 So, at this point, there is a -- a process
11 in place to -- to deal with that, but it certainly
12 doesn't involve DFO, because it has to do with
13 bioaccumulation, which is not their responsibility.
14 Thank you.
15 THE CHAIRPERSON: Thank you very much,
16 Mr. Redvers. Okay. So we'll stop there. I want to say
17 thank you to Fisheries and Oceans Canada for coming out
18 and doing a presentation.
19 Next, I just want to make sure I'm clear.
20 It's been brought to my attention that the Nahanni Butte
21 Dene Band withdrew their presentation, but they would
22 like to ask questions. So am I correct on that?
23 MR. PETER REDVERS: Peter Redvers. The -
24 - the presentation is posted. It's not being withdrawn;
25 it's on -- will remain on --

1 THE CHAIRPERSON: Okay.
2 MR. PETER REDVERS: -- on the record, but
3 there's no point in the Naha Dehe Dene Band repeating --
4 THE CHAIRPERSON: Okay.
5 MR. PETER REDVERS: -- presentation to
6 the Board; it's essentially the same. However, as I
7 mentioned earlier, we do certainly want the ability to
8 ask questions of INAC and Canadian Zinc on the water
9 quality issue for clarity in terms of the process that
10 will be followed to resolve that, and we'll do that
11 accordingly.
12 THE CHAIRPERSON: Very good. Thank you,
13 Mr. Redvers. I'll allow that. So I'll just note it for
14 the record. So I want to go to Dehcho First Nations as
15 well, Mr. Joe Acorn, who is at the same position, as
16 well, Dehcho First Nation.
17 MR. JOE ACORN: Sorry, I missed the
18 question there.
19 THE CHAIRPERSON: Sorry, Joe. I was just
20 asking that the -- you also -- I have on my list here
21 that Dehcho First Nation is going to be doing a
22 presentation. So it's my understanding that -- that,
23 similar to Mr. Peter Redvers, that you guys want to --
24 you guys already did a presentation in Nahanni Butte, so
25 what we're saying -- I guess what I'm told, that you want

1 to continue on and just ask questions, but not do your
2 presentation here?
3 MR. JOE ACORN: Joe Acorn. Yes, we --
4 we're on the schedule, and we agreed to take ourselves
5 off the schedule. We just felt it more important to be
6 questioning the other proponents right now, and we think
7 the points that we would have made in our presentation we
8 can kind of make indirectly through the questions we pose
9 to the -- to the other intervenors.
10 THE CHAIRPERSON: Very good. We'll allow
11 that, Mr. Acorn. So, with that, I'm going to ask Parks
12 Canada to come up and set up, and maybe we'll take five
13 (5) minutes.
14
15 --- Upon recessing at 11:14 a.m.
16 --- Upon resuming at 11:24 a.m.
17
18 THE CHAIRPERSON: We have Parks Canada
19 next, and I think you can just do your quick introduction
20 as to who is up there with you. And also, when anybody
21 speaks, if you could speak close to the mic and slow down
22 a little bit.
23 Okay. With that, I'm going to turn it
24 over to Parks Canada.
25

1 PRESENTATION BY PARKS CANADA:
2 MS. KATHERINE CUMMING: Thank you, Mr.
3 Chair. It's Katherine Cumming. And with me is Mike
4 Suitor, with Parks Canada, and Jamie Vangulck with Arktis
5 Solutions. Good morning.
6 Today I will be introducing you to --
7 begin by introducing you to Nahanni National Park Reserve
8 of Canada, which I will call Nahanni throughout the
9 presentation. I will then discuss the potential impacts
10 of the winter access road and the mine site on Nahanni.
11 Nahanni National Park was established in
12 1976 and the boundary is shown here on this slide as a
13 faint dotted black line.
14 In 2009, the park was expanded to now
15 include over 30,000 square kilometres, the whole green
16 area on the map. The park includes beautiful mountain
17 ranges, vast vistas and canyons and is protected for the
18 public benefit, education and enjoyment while being --
19 leaving it unimpaired for future generations. As
20 mentioned before, Prairie Creek mine site is not located
21 on national parkland but is -- a portion of the road is.
22 The park is located within Dehcho
23 traditional lands. The park is managed with the
24 consensus team comprised of Dehcho First Nations and
25 Parks Canada under a document called the Interim Park

1 Management Agreement. The Dehcho were instrumental in
2 the expansion of the park which now includes the round
3 plateau shown in this picture.
4 Nahanni was also designated a world
5 heritage site in 1978 and a Canadian Heritage River in
6 1987, giving further emphasis to the special nature of
7 this place.
8 Now we will turn to the project,
9 specifically the road. We'll examine the risk of spills
10 and the issues surrounding road construction, karst,
11 vegetation, and wildlife.
12 This road has a high probability of a
13 spill occurring and high consequences of it occurring.
14 Let me explain that. Due mainly to the extreme ter --
15 terrain crossed by this road, which you can see on this
16 graph as the -- the change in height of the road, it is
17 likely that a spill will occur. In fact, in each of the
18 previous two (2) winters the road was used there was a
19 spill. The proponent has stated that 26.5 kilometres of
20 the road are at a moderate to high probability of a
21 spill. All of that means that we feel there is a high
22 probability of a spill occurring.
23 If a spill occurs, the consequences to the
24 environment could be serious because of the sensitive
25 aquatic habitats and karst landforms. The road is very

closer to or on top of water along substantial portions of the road. The karst area is especially sensitive because if a spill ended up in an underground stream in the karst area it would contaminate large areas and we would not be able to clean it up.

The proponent has indicated that 75 percent of the road would have a moderate to high consequence if a spill occurred. Not only that, but if a spill occurred they would have -- they have indicated that on almost 30 kilometres of the road they would not be able to contain the spill.

As mentioned previously, this location is one where there's a moderate to high probability of a spill and containment of the spill on bull trout spawning habitat would not be possible.

The proponent has proposed numerous mitigations, including barriers, speed limits, runaway lanes, and a spill response plan. However, we do not know the aspects of these plans so we do not know where the runaway lanes might be or where barriers and controls points would be.

We don't know the response time for getting materials up to 50 kilometres away to a spill, and the language of some mitigation leaves uncertainty as to whether they will be used or not.

At the end of the section on roads I will address what to do about these outstanding issues. We did recommend a process to ensure there's learning after each spill and there is adequate monitoring after a spill.

Road construction techniques and information are missing despite us asking for this information in each round of the Information Requests and, therefore, assessing impacts are difficult. For example, we do not have an estimate of the total amount of water required for the road and we do not know the volume of Mosquito Lake in Nahanni which is proposed for withdrawal to know if there will be impacts to the aquatic environment.

And as we saw in response to my questions yesterday, alternatives for water sources are undefined. We do not know the total amount of aggregate that is required, and we appreciated the opportunity to ask the company questions yesterday because until then we didn't know the source and, for example, didn't know if there would be impacts from crossing streams. We still have little definition around where and how the source will be used.

Road construction techniques outside of the altered routes are not known and so impacts to

1 permafrost and potential subsequent impacts are difficult
2 to predict. One (1) bridge in the park has only been
3 provided as a drawing.
4 All of this uncertainty means impacts,
5 mitigation and significant are difficult to predict.
6 Again, at the end of the road section I will address what
7 to do about these information gaps.
8 The karst area is a series of unique
9 limestone landforms like this polje pictured here. This
10 polje is sometimes full of water and sometimes as you see
11 it now because it drains directly to an underground
12 stream. The types of landforms found here are both
13 internationally unique and sensitive to the disturbance
14 and impacts. The proponent has proposed a reroute of the
15 existing road to minimize impacts on the karst area and
16 commit to further -- committed to further investigations.
17 We believe detailed ground assessment
18 needs to be carried out to confirm the proposed location
19 is best and we provide a recommendation for monitoring.
20 The potential for non-native species to
21 invade the park or for rare plant species to be impacted
22 was of concern to Parks Canada. The proponent conducted
23 surveys last summer that demonstrated there were not
24 expected to be impacts.
25 We recommend monitoring to ensure new

1 invasive species do not enter the park. We also
2 recommend that the results of research and monitoring be
3 incorporated into the reclamation planning.
4 Potential impacts of the access road on
5 caribou, Dall sheep, moose, grizzly bear, wolverine and
6 beaver are of interest. The proponent's developer's
7 assessment report had little data on wildlife and most of
8 it was old.
9 Over the winter of 2010-2011 the proponent
10 conducted surveys for caribou and the map here shows that
11 the mine site, located there, and a number of locations
12 along the road have a potential, high potential of
13 caribou being there.
14 Mountain caribou found in this area are
15 listed as special concern on the Species at Risk Act,
16 requiring us to ensure there is mitigation and monitoring
17 in place.
18 Although there are mitigations identified
19 through the Wildlife Management Plan, mitigations along
20 the road are minimal. The map on the previous slide
21 identified impacts to caribou and caribou habitat, but
22 mitigation has not been suggested for the -- for these
23 specific impacts nor has monitoring been proposed to
24 determine the effectiveness of mitigation as required by
25 the Species at Risk Act.

We have made recommendations for managing traffic when wildlife are present to minimize impacts and for monitoring.

In answer to our questions about monitoring, the proponent was unable to demonstrate how their approach to monitoring would provide adequate information for adaptive management, which is why we feel it is important to implement our monitoring recommendations.

The road will actually go through a national park and so we feel it is important to plan well so that the mitigations are sure to be effective so that our cooperative management partners and all Canadians are confident we are taking care of the land. In many cases the mitigations may be simple but they need to be planned well to be effective.

To date, the road has been designed only at a conceptual level. Project design and information on mitigations are unknown for many aspects. The full list of outstanding items is in our technical report with the highlights mentioned in each of the previous sections.

Unknowns create uncertainty. For example, one (1) uncertainty is whether mitigations can be contradictory. Will there be barriers or curbs for spills, and will they create barriers for wildlife in

1 important wildlife areas?
2 Will soda ash be stored for mitigation?
3 And if so, will it be stored in a manner to prevent
4 wildlife acts -- access?
5 Will bridges need to be designed to
6 facilitate wildlife movement? Will avalanche control be
7 necessary and will the control affect wildlife?
8 It is, therefore, difficult without
9 further information, particularly with respect to
10 locations, to be sure the mitigations for one (1) issue
11 are not contradicting or creating an impact for another
12 aspect of the environment.
13 If only one (1) aspect of the road design
14 and mitigation was missing it could be reasonable to
15 predict there would be no significant environmental
16 impacts and leave the details to the permitting phase.
17 My colleagues at other departments who have narrower
18 mandates have used this approach. However, Parks Canada
19 and the Board have a mandate for all aspects of the
20 environment and this broader perspective -- perspective
21 allows us to see the full uncertainty.
22 Or if, on the other hand, this road was
23 proposed in very standard conditions for engineering and
24 the environment perhaps all of these details could be
25 left to the permitting phase. In this case, however, you

1 have many environment sensitivities; species at risk,
2 bull trout habitat, aquatic ecosystems under the road,
3 karst in a national park, and you have a very challenging
4 road to construct and prevent spills on because of the
5 terrain and per -- permafrost, and you have very little
6 information.
7 In this situation the lack of information
8 creates uncertainties about potential impacts, the
9 significance of those impacts, and the actions necessary
10 to mitigate them.
11 What do we do with these outstanding
12 issues and uncertainty? We believe these issues can be
13 resolved with further information. And Aboriginal
14 Affairs has proposed a way forward with respect to the
15 site specific water quality objectives, and one (1)
16 option would be to address many of these issues while
17 that process is underway.
18 In summary, with respect to the road we
19 believe that uncertainties need to be reduced in order
20 for us to make a conclusion on the significance of
21 adverse impacts.
22 We will now look at the potential impacts
23 of the mine site on Nahanni, first during mine operation
24 and then post-closure.
25 Parks Canada has been evaluating the

1 potential impacts of the mine site and the ecological
2 integrity of Nahanni, which is seven (7) kilometres
3 downstream, and specifically the Prairie Creek aquatic
4 ecosystem. In our scoping submission we identified the
5 goal of assessing whether there would be impacts to
6 ecological integrity as defined on the slide. The terms
7 of reference included this, as well.
8 Part of our description of ecological
9 integrity was, first, that in the park physical processes
10 that influence aquatic ecosystems will operate within the
11 natural range of variation. This means that the water
12 temperature, pH, and chemistry in the Park would be
13 within the range of what would naturally be found there.
14 Second, aquatic invertebrate and algae
15 communities inside the park are characteristic of the
16 natural region.
17 Let's compare the information provided to
18 this description. Given our definition of ecological
19 integrity we can start by defining what the site specific
20 water quality objectives are for Prairie Creek. We
21 believe the best approach to defining these objectives in
22 the park is to base them on the reference condition
23 approach because it is based on what is normally found in
24 Prairie Creek and, therefore, consistent with our
25 definition of ecological integrity. This was the

1 approach used by the proponent until three (3) months ago
2 in April. We agree with Aboriginal Affairs'
3 recommendation that these need to be refined and further
4 defined.
5 Next we asked what would be allowed to
6 come out of the pipe into the creek, called the effluent
7 quality criteria, or water licence limits, and would they
8 insure that they -- they meet the objectives in the -- in
9 the creek.
10 When we compare the predictions for water
11 quality in Prairie Creek in the park provided by the
12 proponent based on their water licence limits to the
13 reference condition approach objectives that they
14 provided in the DAR and IR-1, we see that the water
15 quality regularly is predicted to be outside the range of
16 natural variability. Cadmium, lead, selenium, zinc and
17 mercury all are shown to be above those objectives at low
18 flows, which occur often, and often at average flows.
19 At the end of May the proponent provided
20 new information based on approaches, new approaches to
21 regulation. They did not provide predictions for the
22 Park but the information they provided did still provide
23 -- exceed RCA objectives, that they pro -- that they
24 proposed in the DAR.
25 So the water quality objectives they are

1 using now are not based on our definition of ecological
2 integrity and they predict they will not meet those water
3 quality -- they will not meet the water quality
4 objectives based on their water licence.
5 And the final question we ask is whether
6 mine operations can achieve the water licence limits that
7 are being proposed.
8 We haven't examined this but Environment
9 Canada has indicated overarching concern with the
10 complexity of the project, and Aboriginal Affairs
11 identified many issues that bring into question the
12 company's ability to reach their goals.
13 Action needs to be taken to address these
14 uncertainties and deficiencies prior to making a
15 conclusion on significance.
16 We support Aboriginal Affairs'
17 recommendation which indicates further work needs to be
18 done to reduce the uncertainties before we can reach a
19 conclusion on the significance.
20 We did recommend monitoring occur in the
21 Park as part of their monitoring program and be connected
22 to a decision response system.
23 A national park is established for future
24 generations and, therefore, the tailings from this mine
25 and the national park will be along -- around a long time

1 together.
2 We were hoping to see predictions that
3 reassured us there would not be any ongoing impacts on
4 Prairie Creek after the operation. The findings of
5 Aboriginal Affairs that there may be more tailings than
6 can fit in the mine and no plans from the proponent about
7 where those tailings will be stored meaning it is hard
8 for us to be sure there will not be ongoing impacts.
9 In conclusion, the existing information
10 does not provide confidence that the proposed approach
11 will mitigate any potential significant impacts from the
12 mine site to Prairie Creek's aquatic ecosystem and the
13 ecological integrity of Nahanni.
14 Nahanni National Park Reserve has been
15 established for future generations and this mine and --
16 or at least the wastes will be around then too.
17 I've read many of the materials from the
18 transcripts and documents from when there was permitting
19 of the mine thirty (30) years ago. And I keep thinking
20 about Parks Canada staff reading those -- the materials
21 from today or community members thirty (30) years from
22 now. I wonder what they will think of the decision we
23 make now. I keep asking myself, have I presented to you
24 the information so that you -- when they read the
25 transcripts they know that you have all the information

1 before you. And we hope we have done to the best we can.
2 We are eager to work with all parties to
3 ensure the project is done right. As Chief Jim Antoine
4 said, a project done right could be a benefit to many.
5 Mahsi cho.
6 THE CHAIRPERSON: Thank you. I want to
7 go to questions. I'm going to start off with the
8 Government of Northwest Territories, questions to Parks
9 Canada in regards to their presentation. Is there a
10 roaming mic?
11
12 (BRIEF PAUSE)
13
14 QUESTION PERIOD:
15 MR. GAVIN MORE: Thank you, Mr. Chairman.
16 Gavin More, Government of the Northwest Territories.
17 I'd like to ask for page 16 of Parks
18 Canada's technical report to be put on the screen,
19 please. That's actually where most of my questions will
20 focus.
21
22 (BRIEF PAUSE)
23
24 MR. GAVIN MORE: We -- we double-checked.
25 The report is on that computer.

1 (BRIEF PAUSE)

2

3 MR. GAVIN MORE: Thank you. It's -- it's
4 that paragraph and those particular recommendations. We
5 won't need to go to the next page.
6 The first thing I wanted to clarify, Mr.
7 Chair, was the sentence related to the appendix
8 presenting the conceptual model of potential effects as
9 they relate to key determinates of population size, and
10 then I want to clarify the -- whether the -- because the
11 -- the paragraph indicates that the wildlife management
12 plan is the appropriate process for developing these, but
13 then they seem to take from that chart some specific
14 mitigations and make them have to do mitigations.
15 And I just want to -- to find out whether
16 my understanding of that is correct, that the conceptual
17 model relates to -- to mitigation ideas for -- for
18 working into the wildlife plan in the future, but that
19 there are the -- the recommended -- the commitments or
20 mitigation commitments in their Recommendations 6 and 7
21 are have to do.
22 THE CHAIRPERSON: Thank you. I'm going
23 to go over to Parks Canada in response to the question.
24

25 (BRIEF PAUSE)

1 MR. MICHAEL SUITOR: Mike Suitor, Parks
2 Canada. With regard to Recommendation 6, that is
3 correct, we are recommending that occur. Most of the
4 mitigations that are presented in Appendix 1 are
5 commitments that the proponent has already made. There
6 are several that could still be made, and one (1) reason
7 we made this recommendation was a clarification on some
8 mitigations that had been proposed.
9 THE CHAIRPERSON: Thank you. Go back to
10 GNWT.
11 MR. GAVIN MORE: Thank you, Mr. Chair.
12 With regards, then, the first bulleted point in
13 Recommendation 6, stopping traffic when wildlife are
14 within 50 metres to allow them to cross, I'd like to know
15 why Parks Canada wasn't specific about what species they
16 meant for that.
17 If you think about it, the word "wildlife"
18 includes several hundreds of species, and given some of
19 the issues that have been raised related to safety and
20 spills, I'm wondering why 50 metres, why all wildlife
21 species, and how that fits with some of the concerns over
22 safe driving when there has been allusion to portions of
23 the road being areas where one likely wants the drivers
24 to keep their eyes on the road.
25 And -- and I'd like to find out the

1 background, and whether Parks Canada, as a second part of
2 that, would be willing to be -- to agree to modifying
3 that to be more specific to specific species.
4 THE CHAIRPERSON: Thank you, Government
5 of the Northwest Territories. I'm going to go to Parks
6 Canada.
7
8 (BRIEF PAUSE)
9
10 MR. MICHAEL SUITOR: Mr. Chair, Mike
11 Suitor, Parks Canada. I believe GNWT raises a point that
12 is consistent with one (1) of the issues that we've had
13 throughout this review, and -- and that is that we don't
14 know what many of the other mitigations are, so there is
15 a lot of uncertainty, making recommendations very
16 challenging.
17 One (1) of the reasons that we -- we did
18 include -- it is more generic, the recommendation that's
19 been made, and we would be amenable to tightening up the
20 language on that as needed.
21 THE CHAIRPERSON: Okay. Thank you.
22 Government of the Northwest Territories...?
23 MR. GAVIN MORE: My second question then
24 relates to hazing. I know that the proponents have used
25 the word "herding" in their draft wildlife plan, and

1 hazing isn't a term that we typically use, and I wasn't
2 sure whether it came from Parks Canada legislation, but,
3 as I mentioned before, for -- it's not uncommon for
4 particularly companies that have air strips and areas
5 where animals, particular species of animals, may have to
6 be moved off an airstrip the GNWT issues a permit for
7 that. And I wanted to find out whether -- if there's
8 something -- a reason why the word "hazing" was used and
9 if that relates to Parks Canada's legislation and
10 regulation wording.
11 THE CHAIRPERSON: Okay, thank you. Go to
12 Parks Canada.
13 MR. MICHAEL SUITOR: Mr. Chair, Mike
14 Suitor, Parks Canada. The word "hazing" doesn't have any
15 specific relation to any legislation that Parks Canada
16 has.
17 THE CHAIRPERSON: Thank you. Government
18 of Northwest Territories...?
19 MR. GAVIN MORE: Okay, I guess my
20 followup then is I would like to find out if Parks Canada
21 is willing to change the wording to meet the wording in -
22 - that is typically in legislation rather than having
23 words that don't necessarily have a basis that we all
24 understand in terms of the implications of what the term
25 means.

1 THE CHAIRPERSON: Thank you. Go back to
2 Parks Canada.
3
4 (BRIEF PAUSE)
5
6 MR. MICHAEL SUITOR: Mr. Chair, Mike
7 Suitor, Parks Canada. Parks Canada would be amenable to
8 considering changes in the wording if that suited other
9 parties during the drafting of the wildlife management
10 plan.
11 THE CHAIRPERSON: Thank you. Government
12 of Northwest Territories...?
13 MR. GAVIN MORE: Thank you, Mr. Chair.
14 I'm going to move on to Recommendation 7 now. And the
15 one that I really want to concentration on is the first
16 bulleted item, measures of mountain car -- woodland
17 caribou distribution, in brackets, e.g. site occupancy
18 and population, vital rates, e.g., pregnancy rates in the
19 Prairie Creek watershed and along the road.
20 I wonder if Parks Canada could actually
21 provide a much more detailed description of what they
22 mean by population vital rates. And then, most
23 importantly, the followup is: What are their
24 expectations of what they believe CZN is responsible for?
25 THE CHAIRPERSON: Thank you. Go to Parks

1 Canada.

2

3 (BRIEF PAUSE)

4

5 MR. MICHAEL SUITOR: Mr. Chair, Mike
6 Suitor, Parks Canada. With regard to the first bull --
7 bullet point of Recommendation 7, the wording was fairly
8 generic that was used, and that's because we did not want
9 to be prescriptive of this time. We wanted to allow
10 there to be negotiation as well as some room for
11 determining effective methods. However, we do think it's
12 very important to ensure that mountain caribou are
13 monitored, and partially that comes from the Species At
14 Risk Act regulation that we're guided by as well as the
15 Board is guided by.
16 With respect to vital rates, vital rates
17 for any wildlife species can include things like
18 pregnancy rates, recruitment. There's a number of -- of
19 rates that could be used. Again, our goal is not to be
20 prescriptive. We -- that's why we provide an example of
21 what one might be, and that would be open for negotiation
22 as needed.
23 And, finally, with regard to expectations
24 of what Parks Canada expects of the proponent, we expect
25 that Canadian Zinc is responsible for effects that might

1 occur from the project, whereas Parks Canada or other
2 parties, other governmental departments that have
3 responsibilities for regional monitoring would also do
4 regional monitoring, and we would potentially be willing
5 to work together. However, again, the proponent is
6 responsible for project effects.
7 THE CHAIRPERSON: Okay, thank you. I'm
8 going to go back to the Government of Northwest
9 Territories, but I'm going to ask how much questions you
10 got left?
11 MR. GAVIN MORE: Actually, two (2) --
12 THE CHAIRPERSON: Okay.
13 MR. GAVIN MORE: -- as they're both very
14 short.
15 THE CHAIRPERSON: Okay.
16 MR. GAVIN MORE: I just want to clarify
17 then, Mr. Chair, whether then the phrasing at the top,
18 2.5.3, where it says, "proponent mitigations," that
19 really what Parks Canada means are mitigations for the
20 project, not necessarily tied only to the proponent but
21 also tied to both Parks Canada and the Government of the
22 Northwest Territories in terms of the work that is done
23 on, in this case, the South Nahanni and the Redstone
24 herds. And the -- just to let you know, that's also a
25 joint init -- initiative with the Yukon Government and

1 part of that relates, of course, to the ongoing
2 management planning that is taking place at the national
3 level.
4 And -- and I guess the key for me would be
5 that if, indeed, these are -- if these are broader than
6 just the proponent, that needs to be quite clear so that
7 we understand what are the limits of what the proponent's
8 expected to do versus what are the commitments of
9 government that likely will come out when the -- the
10 National Management Plan comes out and describes the
11 kinds of actions that needs to -- need to be taken for
12 mountain caribou.
13 THE CHAIRPERSON: Okay. Thank you.
14 We'll have Parks Canada.
15
16 (BRIEF PAUSE)
17
18 MR. MICHAEL SUITOR: Mr. Chair, Mike
19 Suitor, Parks Canada. We believe that the recommendation
20 is very important because to date we don't have any
21 monitoring for -- for critical wildlife species, in
22 particular for mountain caribou, which again, is
23 legislated to ensure that Parks Canada and the Board
24 considers that appropriate levels of monitoring is
25 conducted for impacts on -- on mountain -- mountain

1 woodland caribou.
2 We do also believe that in this case the
3 wording actually does specifically state the Prairie
4 Creek area and along the road so it is specific to the
5 project area.
6 THE CHAIRPERSON: Thank you. I'm going
7 to go back to the Government of the Northwest Territories
8 with your final question.
9 MR. GAVIN MORE: Actually, I need to make
10 one (1) quick comment on that. Is that --
11 THE CHAIRPERSON: Okay.
12 MR. GAVIN MORE: The -- the concern I
13 have with the way the measure is, is that the information
14 that -- that we've analysed up to about five (5) years
15 ago, or actually three (3) years ago, would indicate that
16 -- and -- and there has been no discussion by Parks
17 Canada of periods of sensitivity for caribou.
18 And from the GNWT's point of view it's the
19 calving and post-calving that tends to be the areas of
20 habitat that we are most concerned with in terms of -- of
21 the impact on caribou, and -- and that's not been
22 mentioned in terms of where those are in relation to the
23 project.
24 The -- the data that we have to date would
25 indicate that both for the Nahanni and -- and even the

1 Redstone, the calving areas are more towards the Yukon
2 border. And our -- our issues are likely more to do with
3 the -- the calving areas and the impacts of the mines on
4 the -- the Yukon and NWT border.
5 And I -- I think that's a bit of a gap in
6 terms of the -- the information that either has not been
7 provided to the proponent to -- to do, or from our point
8 of view, should have been provided by Parks Canada so the
9 Board understands the information that -- that the
10 governments have that would be helpful to you instead of
11 insisting that the proponent should have done an
12 assessment.
13 And the reason why we state that, is that
14 in no other project in the NWT has GNWT insisted on a
15 project doing things that would be required, like
16 collaring caribou, so that we can understand the -- the
17 more intricate relationships to habitat critical times of
18 the year. So I think from our point of view, we were
19 quite disappointed that that kind of information hasn't
20 been given to you.
21 My last question then is -- and this
22 relates to another issue that, sort of, was mentioned
23 quite a bit in technical reports.
24 I'd like to know if the -- Parks Canada
25 intends to gate the access road at the southern boundary

1 as one enters the park from the Nahanni Butte area?
2 And the reason for that is that the whole
3 issue of behaviour of animals changes dramatically
4 between hunted populations and non-hunted populations.
5 And it's quite important to -- to -- as one plans the
6 kinds of mitigations, is to actually take that into
7 account along with the -- the -- the seasonal crit --
8 critical aspects of the life-cycle of the population.
9 THE CHAIRPERSON: Thank you. Thank you
10 for your comments and your final question. I'm going to
11 go to Parks Canada.
12
13 (BRIEF PAUSE)
14
15 MR. MICHAEL SUITOR: Mr. Chair, Mike
16 Suitor, Parks Canada. I guess first and foremost we'd
17 like to state that we have never asked the proponent to
18 collar wildlife in this area.
19 What we did request was a survey be
20 conducted to understand whether there were caribou in
21 that area during the winter period specifically, because
22 that is when the haul road is active. We know that
23 caribou might be sensitive if there is concentrations
24 that occur near or adjacent to the project development as
25 well as along the access road.

1 That was the reason that we requested that
2 surveys be conducted this winter, which they were, and
3 surveys did demonstrate that there is concentrations of
4 caribou in those areas as depicted by the map we
5 presented earlier on.
6 With regard to other data sets such as the
7 South Nahanni herd or the Redstone herd, we -- we do not
8 actually have access to the Redstone herd data. That is
9 the property of the Government of Northwest Territory's
10 data.
11 With regard to the South Nahanni data,
12 those animals, as we know and as presented by the
13 proponent, do not enter into the project area. That's
14 why the developer's assessment report when initially
15 tabled, had no information for caribou within the project
16 area, which is again why Parks Canada requested that
17 surveys be conducted to confirm that there is no animals
18 in that area during the period of interest.
19 With respect to the access road and
20 gating, Parks Canada will certainly consider controlling
21 access as we may be able to along the access road.
22 THE CHAIRPERSON: Okay. Thank you. I
23 believe we'll stop there. We will come back probably
24 about 12:35, or 12:40, make it 12:40. We'll continue on
25 with questions from -- after this with INAC. And I

1 believe we're going to just have a short luncheon, and I
2 think not everybody has checked out so we'll probably do
3 that. We'll come back at twenty (20) to 1:00, we'll
4 start.
5 We need to start on time, so I want to
6 remind everybody to be here. Thank you.
7
8 --- Upon recessing at 12:04 p.m.
9 --- Upon resuming at 12:45 p.m.
10
11 THE CHAIRPERSON: Thank you. Well, we'll
12 continue on this afternoon. We have Parks Canada done
13 their presentation just before noon this morning, and
14 we're going in the order of asking questions.
15 Before I go to the next person on the
16 list, there is -- there is a process that we have as to
17 how we conduct these public hearings, and we -- we want
18 to maintain the schedule that we have. And I encourage
19 the presenters, when they're putting their questions
20 forward, to probably prioritize and minimize their
21 questions and -- so that we are able to get through this
22 presentation this afternoon.
23 Also, before lunch, NRCan and also
24 Transport Canada have agreed that their presentation --
25 they won't be making a presentation today; it's on the --

1 it's in the package already and it's already on record.
2 But there -- there was a request that -- that, I believe,
3 Canadian Zinc may have questions for them, so we could
4 call -- if -- to answer those questions, so we'll do
5 that.
6 So just to let you know where we're at is
7 that the Government of the Northwest Territories is doing
8 their presentation. Fisheries and Oceans have done their
9 presentation. Nahanni Butte Dene Band again this morning
10 mentioned that they -- they don't need to do that because
11 they've already done their presentation in the Nahanni
12 Butte. However, the -- the -- they're willing to ask
13 questions. And so Parks Canada is up right now, and
14 Dehcho First Nation made the same request this morning,
15 as well.
16 So what we have left is Environment
17 Canada, so the -- I guess they'd be doing a presentation
18 not -- just after these folks, and then we'll go to
19 Indian Affairs Canada. Transport Canada, I mentioned a
20 little bit earlier that they won't be making a
21 presentation. Liidlii Kue made their statement and so
22 the -- and Canadian Zinc. So anyways just to let you
23 know where we're at.
24 We're -- what we have after Parks Canada,
25 I want to go to Environment Canada and then Indian and

1 Northern Affairs.
2 So we're going to go back to questioning
3 now. I want to go to Indian and Northern Affairs Canada
4 questions to Parks Canada on their presentation.
5 MR. ROBERT JENKINS: Thank you, Mr.
6 Chair. It's Robert Jenkins. We have no questions for
7 Parks. Thanks.
8 THE CHAIRPERSON: Thank you very much.
9 I'm going to go to Fisheries and Oceans Canada.
10 MS. BEVERLEY ROSS: Bev Ross, Fisheries
11 and Oceans Canada. We have no questions of Parks Canada.
12 THE CHAIRPERSON: Thank you. I'm going
13 to go to Nahanni Butte Dene Band. Questions for Parks
14 Canada on their presentation?
15 MR. PETER REDVERS: Peter Redvers for the
16 Naha Dehe Dene Band. Just two (2) short sets of
17 questions starting with the issue of aquatic integrity,
18 integrity of the aquatic ecosystem.
19 You indicated that the Park's boundary is
20 7 kilometres below the site, so -- and also that it is
21 Environment Canada that has the ability, I think, to
22 mandate to implement, was it section 36, I believe, which
23 was the deleterious substances.
24 So you've expressed your concern but just
25 for clarity, to a great degree how -- what -- what the

1 outcome of those concerns are is really dependent on
2 Environment Canada and I would also assume then
3 Aboriginal Affairs Northern Development. So there's some
4 reliance on those concerns to be addressed through those
5 parties.
6 Is it simply Environment Canada or also
7 some reliance on Aboriginal Affairs and Northern
8 Development to deal with some of the water quality
9 issues?
10 THE CHAIRPERSON: Thank you. I'm going
11 to go to Parks Canada.
12
13 (BRIEF PAUSE)
14
15 MS. KATHERINE CUMMING: Thank you, Mr.
16 Chair. It's Katherine Cumming. We definitely rely both
17 on Environment Canada and on Aboriginal Affairs. And --
18 but we would be involved in any discussions with respect
19 to site-specific water quality guidelines particularly.
20 THE CHAIRPERSON: Thank you. I'm going
21 to go back to Nahanni Butte Dene Band, Peter Redvers.
22 MR. PETER REDVERS: Peter Redvers. So
23 just for clarity, if there is a process set up to resolve
24 some of the issues which will emerge through AANDC'S
25 presentation on the water quality objectives, it's the

1 expectation of Parks that you would be involved in that
2 process?
3 THE CHAIRPERSON: Thank you. I'm going
4 to go to Parks Canada.
5 MS. KATHERINE CUMMING: Katherine
6 Cumming. Yes.
7 THE CHAIRPERSON: Thank you. I'm going
8 to go to the Nahanni Butte Dene Band, Peter Redvers.
9 PETER REDVERS: Peter Redvers. Next
10 questions relate to the road and more in terms of the --
11 the process.
12 I'm wondering if you could clarify, given
13 the concerns that you have, which of those will need to
14 be or -- yeah, would need to be addressed by the
15 Environmental Impact Monitoring Board in terms of their
16 recommendations and -- which of them -- which of them you
17 would be able to address in terms of some of the
18 authorities that you have with respect to permitting of a
19 road within a national park reserve.
20 THE CHAIRPERSON: Thank you. I'm going
21 to go to Parks Canada.
22 MS. KATHERINE CUMMING: Thank you.
23 Katherine Cumming. I believe that we're looking for an
24 environmental assessment to set the -- the scope, the
25 broad issues, and we certainly have authorities within

1 our Act in order to be able to do the rest of the
2 elements.
3 However, we do believe that there is
4 outstanding items that are at the level that should be
5 addressed in the environmental assessment still at this
6 stage.
7 THE CHAIRPERSON: Thank you. I'm going
8 to the Nahanni Butte Dene Band, Peter Redvers.
9 MR. PETER REDVERS: Peter Redvers. So is
10 it fair to say then that -- that given your statements
11 about -- that there is the potential for significant
12 impacts, that you're in -- in essence looking for the
13 Board to -- to make a recommendation along that lines,
14 but not get into specific recommendations for mitigation,
15 that those could be addressed through the authorities
16 that you have?
17 I'm really just trying to clarify who --
18 who needs to be doing what here. Thank you.
19 THE CHAIRPERSON: Thank you. I'm going
20 to go to Parks Canada.
21 MS. KATHERINE CUMMING: Katherine Cumming
22 here. I think what we're looking for is for the Board to
23 leave the EA registry open until information is obtained
24 to reduce the uncertainties, that we can be able to make
25 a determination on significance. And I believe the --

1 that it would be helpful if the Board developed a process
2 by which those information needs could be addressed and
3 that are needed to address significance.
4 The process for how that should happen I
5 think needs to be one that's transparent and provides
6 full opportunity for all parties to participate, that
7 provides adequate timelines for review in assessing the
8 adequacy of the information, and that the proponent would
9 be willing to participate in such a process.
10 And if there was such a process put in
11 place, then Parks Canada would take an undertaking to be
12 more specific about which elements we think should be
13 part of -- needed in that Environmental assessment
14 process level before the record was closed and what could
15 wait until permitting.
16 THE CHAIRPERSON: Okay. Thank you. I
17 want to go back to Nahanni Butte Dene Band, Peter
18 Redvers.
19 MR. PETER REDVERS: Peter Redvers, Naha
20 Dehe Dene Band. Certainly the Board heard I believe at
21 the Community hearing in -- in Nahanni Butte that the
22 Community is interested in seeing this project move
23 forward with adequate environmental protection in place
24 with a particular focus on water.
25 And I'm just wondering if Parks is looking

1 for an -- an extension, or leaving the registry open,
2 what kind of timeline would you actually suggest would be
3 necessary in order to resolve, or get the information
4 that you -- that Parks feel they need to address
5 significance? Because timing is -- is fairly important
6 to the community at this point in view. Thank you.
7 THE CHAIRPERSON: Thank you, Peter
8 Redvers. Go back to Parks Canada.
9 MS. KATHERINE CUMMING: Katherine
10 Cumming. I -- I'm afraid I can't answer that at this
11 point. It would depend partly on the process that the
12 Board developed in order to address those outstanding
13 issues and what -- what the final details were on which
14 ones we were requiring now. So I can't answer that at
15 this time.
16 THE CHAIRPERSON: Okay. Thank you.
17 I'll go back to Nahanni Butte Dene Band.
18 MR. PETER REDVERS: Peter Redvers. I'll
19 just leave it at that for now. There may be some other
20 questions from other parties on that matter. Thank you.
21 THE CHAIRPERSON: Okay. That's --
22 that's your -- no more questions, Peter? Thank you.
23 Okay. I'm going to go over to -- I'm going to go to the
24 Dehcho First Nation, Joe Acorn.
25 MR. JOE ACORN: Thanks. Joe Acorn. I

1 just want to say up front that -- I mean, I've spoken
2 with Grand Chief Sam Gargan yesterday and I wanted to
3 relay his feelings that he appreciates the effort Parks
4 Canada has put into this Environmental Assessment.
5 In particular though we appreciate the
6 fact that Parks Canada is actually trying to do an impact
7 assessment instead of treating the EA as a roadblock -- a
8 speed-bump on the road to the regulatory process. Simply
9 dumping impact concerns on the Land and Water Board and
10 the other regulators isn't what this process was designed
11 for and it just creates complications farther down the
12 road.
13 So my first question, sort of, is -- is
14 linked to that. We filed a letter with the Land and
15 Water Board concerning Canadian Zinc's use of the access
16 road. Zinc has refused to answer certain questions
17 throughout this EA process on the basis that MV-2003-
18 F0028 gives them the right to use the access road for
19 mine construction and operations. Our view is that it's
20 limited to advanced exploration and cleanup activities.
21 We put that question directly to the Land
22 and Water Board and we haven't seen that question
23 answered yet. But my understanding is that for the road
24 within the Park it is Parks Canada that will issue the
25 land use permit.

1 Now Canadian Zinc has recently filed an
2 application with you, so my question, I guess, just to
3 get it on the record is: Are you considering that
4 application that Zinc has filed with you to be a land use
5 permit for the use of the entire road, or for simply the
6 -- the road realignments and you accept their position
7 that their existing permit is good for the original road?
8 THE CHAIRPERSON: Thank you. I'm going
9 to go to Parks Canada.
10 MS. KATHERINE CUMMING: Katherine
11 Cumming, Parks Canada. The application was for the
12 entire road portion within the national park and
13 associated activities.
14 THE CHAIRPERSON: Thank you.
15 MR. JOE ACORN: All right, thank you. So
16 on the road section of your technical report you made
17 seven (7) recommendations. We don't have any problems
18 with those. Where I think Parks fell a little bit short
19 in your technical report is in your next steps.
20 I think you've done a good job at
21 identifying the issues, but I think in -- in a number of
22 places you've identified your concerns and you haven't
23 clearly spelled out where you want this process to go,
24 and I think that's what Peter was getting at.
25 So specifically, you've got eight (8)

1 bullets on page 7 of your technical report, and I'm
2 wondering is, you say here:
3 "Given the high potential for spills
4 and the high consequences of a spill
5 these commitments leave some concerns
6 to be addressed."
7 For example, what I'm asking, how and when
8 do you see these eight bullet points being addressed? Is
9 that what you're discussing when you're saying leaving
10 the public registry open?
11 THE CHAIRPERSON: Thank you. I'm going
12 to go to Parks Canada.
13 MS. KATHERINE CUMMING: Katherine
14 Cumming. Yes, that's right. That would be a portion of
15 the items we would review to determine -- some of those
16 may be during the EA process and some may be deferred,
17 but that would be part of the process we were discussing.
18 THE CHAIRPERSON: Okay, thank you. I'm
19 going to go back to Dehcho -- sorry, Dehcho First Nation.
20 MR. JOE ACORN: Joe Acorn. So does that
21 also apply to the twenty-one (21) bullets you've
22 identified on pages 17 and 18 of your technical report?
23 THE CHAIRPERSON: Thank you. Parks
24 Canada...?
25 MS. KATHERINE CUMMING: Katherine

1 Cumming. Yes, it does.
2 THE CHAIRPERSON: Thank you. Dehcho
3 First Nation...?
4 MR. JOE ACORN: Joe Acorn. Okay, given
5 that, I don't think this is an issue that can be let
6 slide any farther, and I think the Board sort of needs to
7 come forward here and just say what it wants. And I
8 think Parks Canada is clearly asking for a decision of
9 the Board to do something, and I think perhaps the Board
10 should be giving some advice to Parks Canada at this
11 time, whether or not you expect them to file a motion
12 with the Board to achieve what they're trying to achieve
13 here.
14 THE CHAIRPERSON: Thank you. We'll
15 caucus for about five (5) minutes.
16
17 (BRIEF RECESS)
18
19 THE CHAIRPERSON: Okay. Well, I guess
20 the five (5) minutes was really quick. In response to
21 Joe Acorn's question, I wanted to defer that over to my
22 legal counsel, Review Board, Mr. John Donihee.
23 MR. JOHN DONIHEE: Thank you, Mr.
24 Chairman. The Board's intention is to try to get through
25 the presentations today. What happens in -- in terms of

1 the -- the kind of process that Parks Canada and that
2 INAC may be raising the same issue in their presentation,
3 the Board will -- wants to hear from the parties first
4 before it deals with this issue.
5 And so -- you know, and -- and the other
6 thing is, Parks hasn't actually made a request yet, so,
7 you know, we'll -- my understanding is the Board wants to
8 hear all the evidence, and it'll give instructions on
9 process after that point.
10 THE CHAIRPERSON: Thank you, Mr. Donihee.
11 So I'm going to go back to Joe Acorn. Do
12 you have any further questions?
13 MR. JOE ACORN: Joe Acorn. Yes, maybe
14 gets -- clarify something from Mr. Donihee then. Do you
15 actually need to get a request from Parks Canada by the
16 time this hearing closes, or is the Board simply going to
17 take what it's heard and make a decision?
18 What I'm -- I'm trying to get at is, do
19 you need a motion to do something or you're willing to do
20 it without getting a motion?
21 THE CHAIRPERSON: Okay, thank you. I'm
22 going to go to the Review Board legal counsel, John
23 Donihee.
24 MR. JOHN DONIHEE: John Donihee. Thank
25 you, Mr. Chairman. It would be much clearer if someone

1 made an application of some sort but, as I said, you
2 know, we have suggestions in writing already from two (2)
3 parties. When the Board -- as we just heard though with
4 Mr. Redvers' questions, quite a bit of clarification
5 about what Parks Canada had in mind, and that's why the
6 Board wants to hear the -- the presentations from the
7 parties first, so that it can be much clearer what --
8 what it is that may be being suggested. And at that
9 point, one (1) of the -- if one (1) of the parties wants
10 to make an application, they can make one.
11 THE CHAIRPERSON: Thank you, Mr. Donihee.
12 I'm going back to Dehcho First Nations, Joe Acorn.
13 MR. JOE ACORN: All right. Thank you.
14 All right, that's fine for that one.
15 Going on to the mine site then, on page 23
16 of your technical report, you have a line there:
17 "It is requested that Canadian Zinc
18 evaluate and assess this potential risk
19 by completing an empirical model of
20 this potential impact."
21 I'm not clear what Parks is trying to get
22 at here -- well, not what you get at, but what is it you
23 want? Are you requesting an undertaking from Canadian --
24 Canadian Zinc here?
25 THE CHAIRPERSON: Thank you. I'm going

1 to go to Parks Canada.
2 MS. KATHERINE CUMMING: Katherine
3 Cumming. No, we're not requesting an undertaking
4 specifically on that. However, it is part of the
5 overarching question of identifying the site-specific
6 water quality objectives and -- and the potential impacts
7 of choosing those impact -- those site-specific water
8 quality objectives.
9 THE CHAIRPERSON: Thank you. Dehcho
10 First Nations, Joe Acorn...?
11 THE CHAIRPERSON: Thank you. Joe Acorn.
12 All right. At the top of page 24, you've got two (2)
13 paragraphs there which sort of summarize and highlight a
14 number of deficiencies you see with this project and --
15 and why you think it can't really go forward right now.
16 That seems to be what you're getting at.
17 But the problem I have is that you haven't
18 really wrapped it up with a recommendation. So were the
19 top two (2) paragraphs of page 24 simply support for your
20 idea of holding the public record open, or is that -- are
21 those two (2) -- two (2) paragraphs supposed to be
22 leading to some other recommendation?
23 THE CHAIRPERSON: Thank you. I'm going
24 to go to Parks Canada.
25 MS. KATHERINE CUMMING: Katherine

1 Cumming. Yes, they're support for our recommen -- or our
2 idea to hold the EA record open.
3 THE CHAIRPERSON: Thank you. Going back
4 to Nahanni Butte -- sorry, Dehcho First Nations, Joe
5 Acorn.
6 MR. JOE ACORN: Joe Acorn. All right.
7 Thanks. You've only made one (1) specific recommendation
8 on the mine sites; that's Recommendation 8 concerning
9 monitoring. We have no problem with that, so I don't
10 have any further questions.
11 THE CHAIRPERSON: Thank you. I'm going
12 to go on to Environment Canada. Any questions for the
13 GNWT or, sorry, Parks Canada, on their presentation?
14 MS. ANNE WILSON: Thank you. It's Anne
15 Wilson. We have no questions.
16 THE CHAIRPERSON: Thank you. I'm going
17 to go to Natural Resources Canada. Any questions for
18 Parks Canada on their presentation?
19 MR. FONS SCHELLEKENS: It's Fons
20 Schellekens with Natural Resources Canada. We have no
21 questions for Parks Canada.
22 THE CHAIRPERSON: Okay. Thank you.
23 Transport Canada, any questions for Parks Canada on their
24 presentation?
25 MR. CHRIS AGUIRRE: Chris Aguirre,

1 Transport Canada, and we have no questions, as well.
2 THE CHAIRPERSON: Thank you. Liidlii Kue
3 First Nation, any questions for Parks Canada on their
4 presentation? Okay. And I don't see any hands up, so
5 I'm going to go to Canadian Zinc. Do you have any
6 questions to Parks Canada on their presentation? And if
7 we could keep it brief, if we can. Thank you.
8 MR. KEVIN O'CALLAGHAN: This is Kevin
9 O'Callaghan for Canadian Zinc. I have a -- a few
10 questions to start off, and then Mr. Harpley will ask a
11 few more.
12 In the National Parks Act, ecological
13 integrity is defined as meaning:
14 "...with respect to a park, a condition
15 that is determined to be characteristic
16 of its natural region and likely to
17 persist, including abiotic components
18 and the composition and abundance of
19 native species, biological communities,
20 rates of change and supporting
21 processes."
22 Now that's -- that's a lot of words there,
23 but I take that to mean kind of, from a -- a layman's
24 plain language perspective, that on a park-wide basis
25 there's a -- there's a status quo that will be

1 maintained.
2 Is that right?
3 THE CHAIRPERSON: Thank you. I'm going
4 to go to Parks Canada.
5
6 (BRIEF PAUSE)
7
8 MS. KATHERINE CUMMING: Katherine
9 Cumming. It means at a relevant, ecological scale, so
10 it's applicable at multiple scales, the park-wide scale
11 being one (1) of those scales.
12 THE CHAIRPERSON: Thank you. I'm going
13 to go back to Canadian Zinc.
14 MR. KEVIN O'CALLAGHAN: Kevin
15 O'Callaghan. So in Appendix 2 of your technical report -
16 - do you have that there? Oh, good. You -- you lay out
17 that definition, and then you lay out a number of -- of
18 items that really seem to be to assist in understanding
19 what ecological integrity means to Parks Canada as -- as
20 opposed to from the Act. And number 3 of those is:
21 "In the Park physical processes that
22 influence aquatic ecosystems will
23 operate within natural range of
24 variation."
25 So the way I would understand that is that

1 a physical process can change, but that it can't change
2 so as to influence an aquatic ecosystem, is that right?
3 THE CHAIRPERSON: Thank you.
4 Parks Canada...?
5
6 (BRIEF PAUSE)
7
8 MS. KATHERINE CUMMING: Katherine
9 Cumming. It's not quite correct. What it's saying is
10 that the physical processes that we're caring about in
11 this situation are those that influence aquatic
12 ecosystems. So that would include things like those that
13 are listed below. That's why they're specified there,
14 water flow, channel myth -- morphology, temperature,
15 chemical processes and regimes, and that all of those
16 things operate within the natural range of var --
17 variation.
18 THE CHAIRPERSON: Thank you. I'll go
19 back to Canadian Zinc.
20 MR. KEVIN O'CALLAGHAN: Kevin
21 O'Callaghan. So -- and -- and that list of -- of things
22 there below does not include water quality, is that
23 right?
24 THE CHAIRPERSON: Thank you. Parks
25 Canada.

1 MS. KATHERINE CUMMING: Katherine
2 Cumming. Chemical processes and regimes are what we
3 would consider water quality as well as temperature.
4 THE CHAIRPERSON: Okay. Thank you. And
5 I'll go back to Canadian Zinc.
6 MR. KEVIN O'CALLAGHAN: So -- it's --
7 it's Kevin O'Callaghan. So the -- the first time you've
8 mentioned that chemical processes and regimes are equated
9 to chemistry is today, isn't that right?
10 THE CHAIRPERSON: Thank you. Parks
11 Canada.
12
13 (BRIEF PAUSE)
14
15 MS. KATHERINE CUMMING: This do -- this
16 whole description was in our scoping submission very
17 early on. I can't remember the transcripts of technical
18 meetings and all of that to know exactly how we described
19 it. We've also sat down with Canadian Zinc on a bar --
20 party basis to just go through our scoping submission to
21 explain what it all meant, and I can't remember the
22 details of that conversation either to know how I
23 described it at that point. But certainly I would have
24 thought it -- it was obvious.
25 THE CHAIRPERSON: Okay. Thank you.

1 MR. KEVIN O'CALLAGHAN: Kevin --
2 THE CHAIRPERSON: I'll go back to
3 Canadian Zinc.
4 MR. KEVIN O'CALLAGHAN: Kevin
5 O'Callaghan. So if the change in a particular chemical
6 parameter didn't influence aquatic ecosystems, then you
7 would have no problem with that, is that right?
8 THE CHAIRPERSON: Thank you. I'll go to
9 Parks Canada.
10
11 (BRIEF PAUSE)
12
13 MS. KATHERINE CUMMING: Katherine
14 Cumming. I'm just going to suggest that I pull back to
15 the bigger question that I suspect you're aiming towards,
16 and that is that the reference condition approach that we
17 recommend as being a basis for setting site specific
18 water quality objectives is a basis for that and we're
19 willing to consider what other objectives may be
20 appropriate if it can be demonstrated that they won't
21 have an impact on aquatic ecosystems. And we've
22 definitely said that before.
23 THE CHAIRPERSON: Thank you. I'm going
24 to go to Canadian Zinc.
25 MR. KEVIN O'CALLAGHAN: This is Kevin

1 O'Callaghan here. So just to be crystal clear on that,
2 you are willing to look at site-specific water quality
3 objectives other than the reference condition approach as
4 long as they're protective of ecological integrity?
5 THE CHAIRPERSON: Thank you. I'm going
6 to go to Parks Canada?
7 MS. KATHERINE CUMMING: Katherine
8 Cumming. We believe we need to start with a reference
9 condition approach and that there's an appropriate
10 process to be deciding when we deviate from that, but --
11 and that part of that process will involve demonstrating
12 when -- whether there would be impacts on the aquatic
13 ecosystem from any deviations but, yes, we'd be willing
14 to consider other objectives.
15 THE CHAIRPERSON: Thank you. Canadian
16 Zinc...?
17 MR. KEVIN O'CALLAGHAN: It's Kevin
18 O'Callaghan. So in the context of Prairie Creek and the
19 water flowing into the Park, what we're talking about is
20 change from the status quo, the water entering into the
21 Park right now, is that right?
22 THE CHAIRPERSON: Thank you. Go to Parks
23 Canada.
24
25 (BRIEF PAUSE)

1 MS. KATHERINE CUMMING: Katherine
2 Cumming. Not the water right now but the natural range
3 of variability.
4 THE CHAIRPERSON: Okay. Thank you. I'll
5 go back to Canadian Zinc.
6 MR. KEVIN O'CALLAGHAN: It's Kevin
7 O'Callaghan. So just to be clear, the -- the natural
8 range of variability over the last -- and I'm going to
9 throw out ten (10) years but throw whatever number of
10 years makes sense to you that would reflect that natural
11 variability.
12 THE CHAIRPERSON: Okay. Thank you.
13 Parks Canada...?
14 MS. KATHERINE CUMMING: Katherine Cumming.
15 I think it's -- it's partly based on the data that we
16 have available and also by the standard methodologies of
17 the reference condition approach.
18 THE CHAIRPERSON: Okay. I want to go to
19 Canadian Zinc but I had a question for you in terms of
20 the amount of questions remaining. Can you give me an
21 indication of how much questions you have left?
22 MR. DAVID HARPLEY: It's David Harpley.
23 Kevin appears to be done but I still have a significant
24 number of questions remaining that are key to the water,
25 particularly the water intervention from Parks Canada and

1 also some questions related to the road.
2 THE CHAIRPERSON: Yeah. We'll proceed
3 but I would just appreciate it if you could just minimize
4 those questions. Thank you.
5 MR. DAVID HARPLEY: It's David Harpley.
6 I'll try and keep it as brief as possible. I'm on page
7 21 of the Parks Canada Report. I'll start with water
8 quality. And the comment is made, the second paragraph
9 from the top, that says:
10 "Two (2) issues remain that make it
11 difficult to determine if impacts to
12 aquatic life in Nahanni are expected
13 and the two (2) issues are toxicity and
14 exceeding objectives."
15 So I'd like to deal with each one
16 separately.
17 On the toxicity issue, lower down on the
18 page there is a comment about outstanding questions and
19 then comments are made that are really posed as
20 questions. So I'm going to make an attempt to answer
21 those questions and then I'll ask if that addresses the
22 uncertainty that Parks Canada have.
23 The -- the question really relates to
24 sample representivity upon which the toxicity testing was
25 undertaken on. And one (1) of the challenges we had with

1 the recent work we -- we undertook was generating a --
2 what we considered a representative sample.
3 We actually did two (2) batches of
4 testing. The first batch of testing we were getting a
5 little bit surprising results from our water treatment;
6 it wasn't behaving like it had behaved before. And we
7 came to the conclusion that the reason that was occurring
8 was the water had not aged as much as it had previously.
9 And what I mean by aged, you'll remember
10 in my presentation I discussed the fact that processed
11 water when it comes out of the mill still has residues
12 from the reagents. And we came to the conclusion that
13 these reagents, the residues were still present in the
14 water and that was interfering with the treatment.
15 Similarly we found that after we had
16 successfully treated the water we got some strange
17 results from the toxicity testing, sufficiently strange
18 that we elected to repeat the work. And the -- the last
19 batch of testing we did, the treatment seemed to behave a
20 little better and then the toxicity results we got were
21 consistent, they made sense, and we've used those
22 results.
23 So my question is: Why is it that Parks
24 Canada still have uncertainty with the last batch of
25 toxicity results, which from a scientific standpoint seem

1 to make perfect sense?
2 THE CHAIRPERSON: Thank you for that
3 question. I'm going to go to Parks Canada.
4
5 (BRIEF PAUSE)
6
7 MS. KATHERINE CUMMING: Katherine
8 Cumming. In our technical submission we -- because there
9 was information coming along we set a deadline when we
10 would not review further information. So the second
11 round of tests weren't part of that information when we
12 wrote our technical submission.
13 So it's true the new toxicity tests do
14 show more positive results. There are some still
15 questions in that the new testing used processed water
16 that's different than the processed water or treatment
17 process that's going to be used for the mine.
18 However -- and so that does raise
19 questions. However, when you look at the elements within
20 them there are some that are higher, some that are lower.
21 I think that -- I think there's some encouraging results.
22 There are still questions in some of the
23 things to demonstrate for sure that the rationale for
24 some of the discrepancies are the reasons why things are.
25 I -- I think it wouldn't hurt to run another test to sort

1 of demonstrate that, that -- and that the -- the samples
2 are indeed representative.
3 THE CHAIRPERSON: Okay. Thank you. I'm
4 going to go to Canadian Zinc.
5 MR. DAVID HARPLEY: David Harpley. I'll
6 just make a couple of comments of clarification on that
7 answer and then I'll move on to the next question. The
8 clarifications are, firstly, the last set of results of
9 toxicity was provided in the May 12th submission, I
10 believe, which was within the time frame of review. So I
11 presume Parks Canada did review it and I'm confused as to
12 why they now think that they haven't.
13 The second clarification is that in the
14 last batch of testing we elected to use ferric chloride
15 as a secondary treatment additive as opposed to ferric
16 sulfate.
17 The reason for that was that we found that
18 we had elevated sulfate in the treated water previously
19 and we thought that perhaps the use of ferric chloride
20 might reduce the sulfate concentration. In fact, the
21 sulfate went up, so that didn't actually help.
22 But the ferric is really to produce a
23 source of iron to aid in settling particulates. It has
24 no real effect on the chemistry of the water from a
25 precipitation of other metals perspective, so it's

1 irrelevant in terms of comparing the one (1) test to the
2 other.
3 So moving on to my next question, the
4 second part of the issues that Parks have with difficulty
5 of making an assessment relates to the objectives. And
6 in a number of places in their report, it -- it starts on
7 page 22, and there are references in the text and then
8 there are footnotes made in the text.
9 The first one (1) is on page 22, the
10 second paragraph, where it talks -- the paragraph starts,
11 "In the latest best estimate" and then there's a
12 footnote, footnote 15.
13 It's a little complicated so I'm not going
14 to go through the whole thing, but essentially, if you
15 follow the discussion and then look at the footnotes,
16 what Parks is saying is that the predictions exceed the
17 objectives we've assumed.
18 What is not explained in the analysis is
19 that the tables that they're referring to in their
20 reference to accedences of objectives relates to a
21 scenario that we used to try and simulate the effect of
22 using standard water licence limits, concentrations, and
23 what that would mean in terms of concentrations in the
24 creek. And this was after we had done the predictions of
25 the actual discharge quality and what those

1 concentrations were in the creek.
2 So for example, in -- in Appendix 'C',
3 which is the main reference for this material, the actual
4 predictions that we undertook were in Tables 21 to 44
5 from Appendix 'C', whereas Parks Canada referred to
6 Tables 49, 53 and 57 and others, which relate to this
7 water licence simulation.
8 And it's a key distinction, because --
9 because the first analysis of the tables of the discharge
10 is real, and what we're using to indicate what the water
11 quality would be with that discharge, whereas the later
12 tables is kind of a what-if scenario. And it was an
13 indication to us, as explained clearly in our appendix,
14 that, if we were to discharge with -- with those
15 concentrations and without any other regulatory control,
16 then we would have accedences and we need to do something
17 about it.
18 Parks Canada did not refer to the earlier
19 tables in terms of the reality of the discharge; they've
20 only used the tables from the what-if scenario, and they
21 haven't explained the context upon why that work was
22 done.
23 In addition to that, we've subsequently
24 recommended an additional regulatory step that might be
25 employed. That was the load limits that I discussed in

1 my presentation, as a means of preventing the discharge
2 of a nature that would cause accedences of objectives in
3 the creek.
4 So I'm wondering if Parks can agree that
5 they did ignore the first real part of the assessment,
6 and whether they would now withdraw their reference to
7 accedences based on the fact that we've now submitted an
8 additional regulatory step which would prevent that from
9 occurring?
10 THE CHAIRPERSON: Thank you. I'm going
11 to go to Parks Canada.
12
13 (BRIEF PAUSE)
14
15 MS. KATHERINE CUMMING: Katherine
16 Cumming. Thank you for that. We were very aware that
17 that's what tables we were using, and the reason we were
18 using them is because it's not uncommon, perhaps usual,
19 for a proponent to release water that is close to licence
20 limits, and so it matters what the water quality will be
21 at licence limits. And in this case, it seems like
22 there's a particular importance to paying attention to
23 the licence limits, even if it isn't normal in an
24 environmental assessment process, because the licensing
25 approach does seem to be difficult.

1 If we -- if we don't pay attention to the
2 licence limits then in some ways we're saying that we
3 trust the proponent to maintain their water quality less
4 than the water licence limits, and we'd love to do that,
5 and many propo -- you know, there's no reason why we
6 wouldn't, but that's not the way a regulatory system
7 works.
8 You mentioned that there's additional
9 information about your regulatory process that was
10 demonstra -- sent after we wrote this, which is true, and
11 the new information certainly provides some proposals
12 that seem to be beneficial in perhaps moving in the right
13 direction. However, there remain concerns with them in
14 that the agreement on the site-specific water quality
15 objectives is still outstanding, and the -- there are
16 still some accedences of site-specific water quality
17 objectives based on the RCA values with that new
18 prediction. Also, the predictions they provided in that
19 submission did not provide predictions for the water
20 quality in the Park, so I'm just basing this on upstream.
21 And it doesn't address some of the
22 outstanding questions about the whole process. And then
23 I guess the submission also raised the possibility they
24 would need to expand the water storage pond. And given
25 the site's very small land base that they have between

1 the creek and the mountain, and the geotechnical issues
2 with the water storage pond, proposing that they might
3 need to expand the water storage pond isn't a small
4 issue. And so while there were some encouraging things
5 found in that, there still remains some outstanding
6 questions.
7 THE CHAIRPERSON: Okay. Thank you. I'm
8 going to go back to Canadian Zinc.
9 MR. DAVID HARPLEY: David Harpley. Just
10 a point of clarity again before I move on to my next
11 question.
12 What I think I heard there was that the
13 additional regulatory proposal has merit in terms of
14 preventing accedances of objectives but that there are
15 concerns with respect to storage and the objectives
16 themselves. I think we can leave it there for now, we'll
17 come back to those issues in -- in -- a little later this
18 afternoon.
19 Moving on to the next question. There is
20 quite a bit of discussion in the Parks report regarding
21 mercury. And there is some discussion of the tissue
22 results that have been referred to in a number of reports
23 and the comment is made that the downstream concentration
24 exceeds the upstream concentration.
25 Professor Dube in her analysis said that

1 from a statistical point of view the numbers are
2 essentially the same. The -- this document goes on to
3 say that the downstream sites that are exposed and have
4 these tissues, the exposure is due to mining effluent
5 from -- from Prairie Creek.
6 No -- no consideration is given to any
7 other source. There's a direct conclusion drawn between
8 mercury in tissue and discharge from Prairie Creek Mine.
9 As I said earlier in my presentation, we don't see
10 mercury in our discharge. That's mine water, untreated,
11 coming out of the mine.
12 We do know we have mineralization in the
13 creek downstream. It is quite conceivable that a large
14 proportion, maybe a good proportion of it, of the mercury
15 that's in the tissue in the fish is natural and it's not
16 related to the mine, but no consideration is given to
17 that in the report.
18 I'm -- I'm curious as to why a better kind
19 of consideration this mercury issue wasn't given,
20 particularly in light of the -- the memorandum that was
21 submitted by Hatfield that laid out the conditions
22 whereby you might get significant accumulation of
23 methylated mercury in fish.
24 And given that that memorandum step-wise
25 went through the conditions necessary for that to occur

1 and that none of those conditions exist in Prairie Creek,
2 there's -- there's no comment on those things.
3 Perhaps Parks Canada can give us some
4 insight as to why none of that material was given any
5 credibility.
6 THE CHAIRPERSON: Thank you. I'm going
7 to go to Parks Canada.
8 MS. KATHERINE CUMMING: Katherine
9 Cumming. So the results from this study that's
10 referenced in the Spencer paper were first given to
11 Canadian Zinc in -- in 2007 and I guess they haven't
12 demonstrated to us that there are natural sources that
13 are causing the mercury.
14 I did go back to the paper during a break
15 anticipating this question would come up, and in the
16 paper it does show that there was mercury in the
17 catchment pond at the site that was higher than CCME
18 guidelines in the water quality there.
19 And subsequent to the sampling then, in
20 the SNP data that's collected -- has been collected by
21 Canadian Zinc for their underground decline and pilot
22 plant, they have to measure mercury.
23 And when I look at the values for that
24 there are a number -- many of the values, they actually -
25 - the detection limits are above the CCME guidelines, so

1 we don't actually know what -- whether there was an
2 impact or not, but the -- there are a number of values
3 that did exceed the CCME guidelines for mercury. So
4 while it may be true that we don't have, you know,
5 certain proof, there's some lines of evidence that
6 suggest that it could be coming from the mine, and the
7 mine hasn't -- Canadian Zinc hasn't shown us how it would
8 be coming naturally.
9 And then with regard to the Hatfield
10 report, that's part of our broader question of the site-
11 specific water quality objectives and that if we are not
12 going to meet a particular objective, which their
13 predictions were showing, then we need to have some risk
14 assessment as to what the impact on the aquatic
15 environment would be, and that's what we were looking
16 for. And the information that was provided by Hatfield
17 was very qualitative, and we would be looking for
18 something more quantitative.
19
20 (BRIEF PAUSE)
21
22 THE CHAIRPERSON: Thank you. I'm going
23 to go back to Canadian Zinc.
24 MR. DAVID HARPLEY: David Harpley.
25 Again, a couple more points of clarification and then

1 I'll move on. The first point upon mercury in the mine:
2 It is true that mercury registers in some mine samples
3 from the site, but if you actually look at the data
4 closely and correlate it with other data, you will notice
5 that the only time it registers is in total metal
6 concentrations. And, in fact, where we have data from
7 the mine discharge with dissolved metals, it is non-
8 detectable.
9 And there definitely seems to be a
10 correlation between sediment and mercury registering, and
11 perhaps that's not surprising because we know for a fact
12 that any time you have a small amount of sediment in our
13 water, we have an increase in metal concentrations. So
14 it leads to me -- me to believe that possibly the pathway
15 for mercury movement in the system is by the sediment
16 phase, which could also be a pathway for movement from
17 natural sources.
18 You made the comment about mercury
19 accedences. Again, I'll refer you to the tables in
20 Appendix 'C', and you'll notice that the actual discharge
21 does not exceed the mercury objective; it's only the
22 what-if discharge without an additional regulatory
23 control, which we've now proposed to resolve that issue.
24 Moving on, I want to look at post-closure
25 water quality. There are two (2) specific issues that

are raised in the report with respect to post-closure water quality. The first one (1) has to do with the potential for tailings to remain on surface and the issues associated with that. I'm not going to repeat all of the discussion we had yesterday, except to say that, as -- as we noted, we've done more confirmatory work and are confident in our original conclusion that it will all go underground.

The second issue that was raised refers to Natural Resources Canada and their identification of additional testing is needed to provide confidence. I think that Parks Canada has mischaracterized that -- that reference. Parks Canada were indicating that there were some questions that should be answered in order to design a monitoring program that would be undertaken during operations, not any work that needs to be done prior to operations.

So with those two (2) elements addressed, would -- would Parks Canada now agree that their issues that they had with post-closure water quality have now essentially been dealt with?

THE CHAIRPERSON: Thank you. And go to Parks Canada.

(BRIEF PAUSE)

1 MS. KATHERINE CUMMING: Katherine
2 Cumming. I'll just quickly respond to his comment on the
3 mercury first. As I mentioned before, the sampling for
4 mercury, most of the non-detectable limits were actually
5 above CCME guidelines. So it would be difficult to
6 conclude that there wasn't dissolved mercury when we
7 don't have the sampling at that level.
8 Going on to the post-closure water
9 quality, we will defer that to their discussions with
10 Aboriginal Affairs. I'm not sure that that issue was
11 totally resolved. I believe there was some -- needs to
12 be further. I'll just emphasize that the lack of
13 alternatives and the long term nature of this make it a
14 very important question to consider.
15 And in terms of the water quality from the
16 leachate, I'll just emphasize that the irreversibility of
17 this decision makes it an important one.
18 THE CHAIRPERSON: Okay. Thank you. I
19 want -- before we go over to Canadian Zinc, I want to ask
20 you the question again, is how many more questions you
21 have remaining?
22 MR. DAVID HARPLEY: David Harpley. I
23 would say about four (4) maybe.
24 THE CHAIRPERSON: Okay. Continue.
25 MR. DAVID HARPLEY: Just to finish the

1 water quality story then, I'm now on page 25, I think it
2 is, of your report and in your conclusion you say:
3 "There is not confidence in the
4 proposed approach to mitigate any
5 potential significant adverse impacts."
6 Given the comments we've just been through
7 as far as operational water quality and post-closure
8 water quality and the corrections and clarifications that
9 we've just now discussed, would you now not agree that
10 that conclusion is perhaps not correct anymore?
11 THE CHAIRPERSON: Thank you. Parks
12 Canada...?
13
14 (BRIEF PAUSE)
15
16 MS. KATHERINE CUMMING: Katherine
17 Cumming. Well, we don't have, first of all, action
18 forward on -- there's still outstanding items, so the
19 site specific water quality objectives are outstanding.
20 We just mentioned that we don't believe the tailings
21 issue has been resolved, it's still outstanding.
22 There's the issue -- even if their water
23 licensing approach is getting closer, it has not fully
24 met the objectives and they also raise the issue of the -
25 - expanding the water storage pond in that, which then

1 changes the water management approach, and the questions
2 with respect to tailings in the water storage pond. So
3 based on the evidence we've heard so far, we don't
4 believe many of these issues have been resolved and so,
5 no, we're not changing that statement.
6 THE CHAIRPERSON: Thank you. I'll go
7 back to Canadian Zinc.
8 MR. DAVID HARPLEY: David Harpley, moving
9 on. I assume we will discuss this a little more, perhaps
10 in a few minutes, but with reference to the additional or
11 the outstanding uncertainties you have with respect to
12 the road, I can only speculate as to what they are at
13 this point, but reference was made to pages 7 and pages
14 17 and 18 in your report, so I think we have an
15 indication of what they might be.
16 And a lot of them have to do with spill
17 response, control points, design of the road, use of
18 aggregate water supply and those sorts of things. These
19 things we have discussed already.
20 We've proposed plans, we've made
21 commitments to review and revise plans to produce more
22 data at a more suitable occasion for things like
23 aggregate and water, where we have a better appreciation
24 of just how much material we're going to need for the
25 construction, and some of that appresion -- appreciation

1 really only is possible when you're on the ground and --
2 and doing the work.
3 Another -- another item is speed limits,
4 for example: How do you set the right speed limits until
5 you've actually built the road and started to drive on it
6 with somebody who knows what's appropriate in setting
7 them?
8 So I'm wondering why these particular
9 items are considered so uncertain at this point, and so
10 significant at this point that you need to consider an
11 undertaking to resolve them?
12 THE CHAIRPERSON: Okay. Thank you. I'm
13 going to go to Parks Canada.
14
15 (BRIEF PAUSE)
16
17 MS. KATHERINE CUMMING: Katherine
18 Cumming. So I guess, first of all, the information is
19 missing. We do not have a total amount of water for the
20 whole road, we don't have a total amount of aggregate for
21 the whole road. We just had the source -- one (1) source
22 identified yesterday. We have options on -- we have a
23 source for water, some sources, but not certainty whether
24 they can be used, so that -- and we don't have the
25 locations of many of the mitigations they provided along

1 the road. And as we stated in our presentation, these
2 uncertainties, therefore, make it difficult for us to
3 assess impacts.
4 And I think the -- the key to this is that
5 good planning means good mitigations and reduced impacts
6 and no significant impacts. And so, at this stage, like
7 we mentioned in our presentation, the total number of
8 outstanding items along the road adds to a level of
9 uncertainty that makes it difficult for us to be able to
10 know that the planning for the mitigations to be
11 implemented appropriately has been done.
12 THE CHAIRPERSON: Thank you. I'm going
13 to go over to Canadian Zinc.
14 MR. DAVID HARPLEY: David Harpley. One
15 (1) quick comment, and I -- then I do have two (2)
16 questions left. The comment is, just quickly with
17 reference to aggregate and water, I don't believe either
18 one are limiting in the area, so again I'm not sure why
19 these are significant issues at this point.
20 Moving along to my next question, it has
21 to do with the recommendations on page 16 for wildlife.
22 Some discussion has been had on these items already, but
23 just to move them a little further, Recommendation 6
24 talks about stopping traffic when wildlife are within 15
25 metres to allow them to cross. The -- the logical

1 extension of that recommendation is: What do you do if
2 they don't cross? What do you do if they just stand
3 there and look at you? So I think some more work needs
4 to be done on that, because it's quite conceivable the
5 animals will be quite happy to sit there and watch trucks
6 go by.
7 The next part of the -- the
8 recommendations that I wanted to comment on was
9 Recommendation 7, the -- which talks about monitoring.
10 This appears to be quite an onerous monitoring
11 requirement that's being proposed here, and the problem
12 we have as a company is, we can't see how the results of
13 this monitoring, if it was undertaken, would have any
14 relevance to adaptive change of the operation.
15 Suppose we find that birth rates were down
16 in the -- in the caribou in the -- in the region. How do
17 you draw a correlation between that and road operations
18 directly when there could be any number of reasons why
19 that might occur? We really feel this is more of a
20 research-focussed endeavour, and not really properly
21 focussed on our operation.
22 We've on record and committed in saying
23 that, as a company we're prepared to collaborate and
24 support monitoring efforts in the area, but we are
25 looking for Parks Canada to step up and take a lead role

1 in these most research-related things, because they have
2 the expertise in this area; we don't.
3 So would Parks consider that approach and
4 agree that it is difficult to apply this kind of a
5 monitoring to our kind of project activities?
6 THE CHAIRPERSON: Okay. Thank you. I'll
7 go to Parks Canada.
8
9 (BRIEF PAUSE)
10
11 MS. KATHERINE CUMMING: Katherine
12 Cumming. I'll just start by responding to the aggregate
13 and water sources comment. First of all, with respect to
14 the many water options, the proponent yesterday wasn't
15 able to identify other lakes that were options and, in
16 fact, there aren't that many lakes between the Grainger
17 Gap and the mine site. And there may be other water
18 sources, that's certainly true, but there can be impacts
19 if you take water from water bodies without adequate
20 preparation.
21 And same with the aggregate sources.
22 We're not saying these are unmitigable. We're not saying
23 that it's difficult to mitigate them, but we haven't been
24 given any information about them to know that they will
25 be adequately mitigated.

1 I'll now turn it over to Mike Suitor to
2 respond to the wildlife part.
3 MR. MICHAEL SUITOR: Mike Suitor, Parks
4 Canada. With regard to Recommendation 6, we are in
5 agreement that it is possible that caribou could just
6 hang out along the road. That would be nice if they
7 could just use the habitat and not be part of a road
8 mortality issue and that's what we're endeavouring to
9 achieve through the recommendations we have.
10 Again, we think that a lot of these
11 details can be worked out through the wildlife management
12 plan as we move forward with the possible technical
13 advisory committee. So for example, one (1) addition to
14 that might be that after five (5) minutes if no movements
15 occurred, wildlife are allowed to be hazed outside the 50
16 metre area.
17 We're amendable to those sorts of
18 solutions. Again, we just want to ensure that these
19 considerations are being taken into account and we didn't
20 felt that -- didn't feel that they had been accordingly
21 to this date.
22
23 (BRIEF PAUSE)
24
25 MR. MICHAEL SUITOR: Part of the reason

1 for Recommendation 7 is to date no proposed monitoring
2 has really been proposed by Canadian Zinc. Use of
3 wildlife settings has been the primary means of
4 monitoring wildlife, however, while incorporating
5 settings is a positive step that does allow some sorts of
6 impacts to be monitored, it alone is insufficient.
7 For example, if moose begin to disappear
8 along the road, then is it because they moved to new
9 habitat, or because other impacts are reducing local
10 densities or distributions? We're not certain of that.
11 In order to use an adaptive approach for problem solving
12 as suggested by Canadian Zinc, understanding this
13 difference in explanations is imperative in order to act
14 and to actually adaptively manage.
15 I might point out, as well, that to date
16 we have not specifically said what needs to be monitored
17 other than the fact that we believe the distribution in -
18 - in some sort of metric to allow us to understand
19 changes in population, and that's because we think that
20 again these can be arrived at through a col --
21 collaborative approach.
22 With regard to Parks Canada taking a
23 leadership role, we believe the onus of monitoring
24 wildlife and other valued ecosystem components to this
25 project are on the proponent. That is their duty as

1 they're developing their project.
2 However, as we've said all along, Parks
3 Canada is willing to collaborate and work with Prairie
4 Creek to help develop programs through either
5 collaborative research or monitoring. However, we -- we
6 reiterate that the onus is on the proponent when a
7 development is occurring, and obviously it needs to occur
8 within the project area as suggested in some of my
9 earlier answers.
10 Again, I do think that much of the
11 concerns that we're hearing voiced can be addressed to
12 the -- the Wildlife Monitoring Group, or whoever --
13 whatever is established through the Technical Advisory
14 Committee.
15 However, there does need to be some sort
16 of requirement to ensure that impacts are mitigated and
17 are being monitored to ensure that activities can be
18 adaptively managed. And to date we don't feel that there
19 has been adequate monitoring put in place.
20 THE CHAIRPERSON: We'll go back to
21 Canadian Zinc, final question.
22 MR. DAVID HARPLEY: David Harpley. Two
23 (2) quick comments and then my final question.
24 The -- the comments: The first one (1)
25 regarding monitoring, it's not that we're not intending

1 to do monitoring, it's the scope of that monitoring. We
2 will have monitoring along the roadway undertaken by our
3 own staff and members from Nahanni Butte. And we also
4 intend to collect sightings from all of the truck traffic
5 that operates on the road. I've mentioned the
6 communication system that we intend to employ, so we're
7 going to have an awful lot of eyes on this area during
8 the winter season and expect to collect a lot of
9 monitoring data.
10 The second comment I would make regarding
11 moose, as it was mentioned, I'm willing to bet my net
12 worth on the fact that moose will start to disappear on
13 that roadway when it's open because the road will be open
14 to the Nahanni Butte community and I'm sure they will use
15 it for their traditional pursuits, so there may well be
16 some reduction in moose numbers as a result.
17 Moving on to my question, I -- I'm
18 referring to my recommendations, page 18 onward, so that
19 has to do with monitoring in a karst. The monitoring of
20 spills and -- oh no, it's -- it's the sink holes -- the -
21 - the monitoring of sink holes, their -- their condition
22 and how they might change with time. The recommendation
23 on that page and on the next page, I believe these are
24 somewhat similar to recommendations that our own
25 consultant has made in this regard.

1 Parks Canada are suggesting a twice yearly
2 monitoring and our consultant, who's a qualified terrain
3 consultant, has indicated that he believes the best
4 approach is to make an aneso -- initial assessment and
5 quantification of these features and then decide on a
6 monitoring program subsequently in terms of frequency.
7 But I think he has in the mind -- in mind a time step of
8 maybe every couple of years, certainly not twice a year
9 because these features don't change that quickly.
10 The rest of the recommendations have to do
11 with monitoring either surface water or groundwater. I
12 can see some merit in surface water monitoring from
13 runoff in the -- in the event that there might be spills.
14 Some consideration might be given to starting with a kind
15 of very general program given that until there is
16 actually a spill there's nothing to monitor for.
17 And when it comes to groundwater I have
18 some difficulty understanding the relevance of that
19 monitoring requirement, given that if you're in a karst
20 terrain you could be locating a monitoring well in a
21 solid block of limestone or dolomite, and a few steps
22 away you could have a cavern of groundwater movement. In
23 other words, you're not rep -- you're not monitoring
24 representivity. I don't quite understand the need for
25 groundwater monitoring in this location

1 So those are my feelings on the matter. I
2 wonder if Parks Canada has some thoughts on -- on those.
3 THE CHAIRPERSON: Thank you. I'm going
4 to go to Parks Canada. That will be your final question.
5
6 (BRIEF PAUSE)
7
8 THE CHAIRPERSON: Can we get a response
9 to that question?
10 MR. MICHAEL SUITOR: Mike Suitor, Parks
11 Canada. Again, I'll reiterate the point that, while
12 incorporation of siting data is a positive step and we --
13 we agree that that can be used to mitigate some levels of
14 impacts, it alone is insufficient for understanding the
15 full range of impacts that could occur on wildlife.
16 Particularly with moose, we agree that Nahanni Butte does
17 have the potential to go into that area to access it and
18 to harvest moose. Harvesting is an impact that could
19 occur on moose in that area. We would like to be able to
20 say something about why moose numbers are declining along
21 the road, and that's specifically why we're saying that
22 more monitoring is needed than just siting.
23 Again, for example, if numbers start to
24 decline along the road, is that because of harvest, or is
25 that because of avoidance, or road collisions? We don't

1 know that information based on the monitoring that has
2 been presented to date. However, with the type of
3 monitoring that we've recommended, we would have a better
4 sense of that and we'd be able to provide that data to
5 Nahanni Butte leadership through the technical advisory
6 committee so that they could adjust their harvest
7 accordingly, as they wish.
8 MS. KATHERINE CUMMING: Katherine
9 Cumming. With respect to the monitoring of the karst, I
10 guess at this point we don't know that there won't be
11 changes based on the -- the frequency of trucks and the
12 loads that are going over there, or that it won't change
13 quickly. There's certainly, though, realm for learning
14 over time, and the frequency can adjust as we determine
15 that it isn't needed as frequent, but probably at the
16 beginning we need to -- it may be necessary to be more
17 frequent.
18 I would also point out that water quality
19 can be affected by more than spills. Erosion from -- can
20 also affect water quality, and perhaps even dust from the
21 concentrate. I'll leave that -- those to someone else to
22 discuss, but we are open to discussing the details of
23 this monitoring program to ensure that it meets needs
24 appropriately.
25 THE CHAIRPERSON: Okay. Thank you for

1 your questions from Canadian Zinc. I'm going to go to
2 the review Board staff and legal counsel in the back, if
3 you have any questions to Parks Canada.
4 MR. JOHN DONIHEE: John Donihee, Board
5 counsel. I have no questions.
6 THE CHAIRPERSON: Review Board staff, any
7 questions for Parks Canada?
8 MR. CHUCK HUBERT: No further questions,
9 Mr. Chair.
10 THE CHAIRPERSON: Thank you. To my far
11 left, I'm going to go to Board member Darryl Bohnet.
12 MR. DARRYL BOHNET: Thank you, Mr. Chair.
13 For the portion of the road that is in the park, do you
14 have the appropriate regulatory tools to mitigate
15 significant adverse environmental impacts for this
16 project?
17 THE CHAIRPERSON: Thank you, Mr. Bohnet.
18 Parks Canada..?
19 MS. KATHERINE CUMMING: Katherine
20 Cumming. Yes, when the park was expanded in the Canada
21 National Parks Act, there was -- created the ability to
22 make a water licence and land use permit. They're kind
23 of parallels to the ones outside the park. And so we'll
24 be using those tools, as well as a variety of other
25 permits that are under the Canada National Parks Act.

1 THE CHAIRPERSON: Okay. Thank you. I'm
2 going to go back to Darryl Bohnet.
3 MR. DARRYL BOHNET: I'm interested in
4 coordination of the rules for the road. Obviously, you -
5 - you added -- you added on to -- to the park side. So
6 how is the Company to deal with the -- using the road if
7 there's two (2) sets of rules?
8 THE CHAIRPERSON: Thank you. Parks
9 Canada...?
10 MS. KATHERINE CUMMING: Katherine
11 Cumming. Parks Canada has been working with Mackenzie
12 Valley Land and Water Board to develop a memorandum of
13 understanding that will coordinate our processes and
14 hopefully as many terms and conditions as possible, and
15 hopefully some of the plans and so on. So we're working
16 to be as coordinated as we can.
17 THE CHAIRPERSON: Okay. Thank you.
18 Darryl Bohnet...?
19 MR. DARRYL BOHNET: That -- that's it for
20 me, thanks.
21 THE CHAIRPERSON: Okay. Thank you. I
22 want to go to Board member Percy -- oh, sorry, James --
23 James Wah-Shee.
24 MR. JAMES WAH-SHEE: Mr. Chair, I have no
25 question, thank you.

1 THE CHAIRPERSON: Okay. Thank you. I'm
2 going to go to Board member Percy Hardisty.
3 MR. PERCY HARDISTY: Mahsi, Mr. Chair. I
4 don't have any questions.
5 THE CHAIRPERSON: Thank you. Board
6 member Rachel Crapeau...?
7 MS. RACHEL CRAPEAU: My question that I
8 had, Mr. Chair, was that does Parks Canada know how much
9 more information they need to gather to find out what's
10 happening with the -- the caribou aside from maybe doing
11 one (1) study every five (5) years or every two (2) years
12 because in our area across from where I come from we used
13 to see Woodland caribou in that area, but they're slowly
14 disappearing.
15 And I think Woodland caribou is on the
16 species at risk list. And I'm hoping that maybe if more
17 monitoring was done with traditional harvesting and
18 gathering activities. I'd -- I just want to know if --
19 if you see doing that kind of work with the Dene of this
20 region.
21 THE CHAIRPERSON: Thank you. Parks
22 Canada.
23
24 (BRIEF PAUSE)
25

1 MR. MICHAEL SUITOR: Mike Suitor, Parks
2 Canada. Parks Canada works together directly with
3 Dehcho, the -- the consensus team, in a cooperative
4 management regime. So we do work directly with our
5 Dehcho partners already. We'll continue to work with
6 them through the consensus team as well as through the
7 technical advisory committee directly with the
8 communities such as Nahanni Butte or Fort Simpson. And
9 part of that, of course, would be to help us with our
10 monitoring and any research that would be required with
11 regard to -- to Mountain caribou in the park.
12 With respect to how much more information
13 or how frequent, I think we need to work with those
14 partners to determine that exact information and we're
15 willing to do so.
16 THE CHAIRPERSON: Okay. Thank you. I'm
17 going to go to Board member Rachel Carpeau.
18 MS. RACHEL CARPEAU: The Parks Canada how
19 are you going to be involved when you're looking at this
20 rewording of hazing to maybe possibly herding if there is
21 caribou on the road and the -- the trucks are on the
22 road, the drivers are there.
23 I know that in the northern part of our
24 area Dene drivers get really concerned when they're
25 driving in -- on the roads when they see caribou. But

1 quickly they start to understand the rules. So is Parks
2 Canada going to have somebody that you're going to be
3 reporting with at -- at Canadian Zinc to see that -- like
4 from your information it said, train staff to do this
5 work, the -- the herding or hazing?
6 THE CHAIRPERSON: Thank you. I'm going
7 to go to Parks Canada.
8
9 (BRIEF PAUSE)
10
11 MR. MICHAEL SUITOR: Mike Suitor, Parks
12 Canada. Recommendation 6 of our -- of our technical
13 report we actually talked about hazing only being carried
14 out by specific trained staff.
15 We expect that the community monitors that
16 Canadian Zinc has -- has worked with the local
17 communities, will be doing much of the monitoring in
18 terms of keeping track of -- of where wildlife are at as
19 well as ensuring that hazing is occurring if needed to
20 keep -- ensure that wildlife aren't struck on the road
21 and -- while allowing them to use habitat adjacent to the
22 road.
23 In terms of working with those
24 individuals, we'll, I -- I believe there'll -- there will
25 probably be some annual reporting requirements that might

occur. There'll be the technical advisory committee, where we'll be able to directly deal with some of those issues potentially, depending on what the terms of reference come out with.

We'll also be -- Parks Canada will also be doing inspections along the road within its jurisdiction to ensure that the different stipulations within the permits are adhered to at all times.

THE CHAIRPERSON: Okay. Thank you. Rachel Crapeau...?

MS. RACHEL CRAPEAU: Just one (1) more question. The mercury study that you mentioned done by Spencer, does it talk about mercury levels in fish or, if it doesn't mention that in this study, do you know of other studies in this area that touches on mercury levels in fish in -- in the parks or near the -- this area where the project's going to be?

THE CHAIRPERSON: Okay. Thank you. Parks Canada...?

MS. KATHERINE CUMMING: Katherine Cumming. Yes, the study looked at slimy sculpin, the little guys, and did find that there were two two point four (2.4) or two point eightfold increase in mercury levels in the fish to -- tissues between the upstream reference site and the downstream sites.

1 THE CHAIRPERSON: Okay. Thank you.
2 Rachel Crapeau...?
3 MS. RACHEL CRAPEAU: Do you anticipate
4 any more future studies by Parks Canada or by any other
5 department that deal with this type of work?
6 THE CHAIRPERSON: Thank you. Parks
7 Canada...?
8 MS. KATHERINE CUMMING: Katherine
9 Cumming. We do have a study on bull trout movement at
10 the area, but nothing specifically on mercury or -- in --
11 in fish, but I think that would be part of, when we knew
12 what came out of this hearing, we could decide whether
13 there was a need for studies. And also there will be
14 some need for monitoring by the Company that will include
15 some fish as well.
16 THE CHAIRPERSON: Okay. Thank you.
17 Rachel Crapeau...?
18 MS. RACHEL CRAPEAU: I'm happy to hear
19 that, maybe in anticipation, there could be some more
20 studies in the future, but I'd like to mention that, in
21 our area, the Yellowknives Dene did do a study on mercury
22 with the fish, and the result was that a lot of our
23 people were happy to learn that there was no real serious
24 danger of being contaminated with mercury. So I was just
25 thinking about people's level of comfort with this

1 project in the future. That's all I wanted to say.
2 Thank you.
3 THE CHAIRPERSON: Thank you, Rachel
4 Crapeau. I'm going to my right now. I'm going to go to
5 Richard Mercredi, questions to Parks Canada.
6 MR. RICHARD MERCREDI: Yeah, I just have
7 one (1). It's with regard to the realignment of the
8 road. You mentioned concerns about the aggregate water
9 and discontinuous permafrost. Are you looking for this
10 information prior to the road construction commencing, or
11 when they're doing the surveying, or before or after?
12 I'm just wondering what -- what you're looking for in
13 that. A little bit of clarity, I guess.
14 THE CHAIRPERSON: Thank you. We're going
15 to go to Parks Canada.
16 MS. KATHERINE CUMMING: Katherine
17 Cumming. I think the answer is we need more than we have
18 right now in order to make a determination of
19 significance at this point, because we have very little
20 at this point. To give you a precise answer as to which
21 pieces of information, I can't tell you right now, and
22 that's why I suggested a process which, if it was decided
23 to go that way, we would be willing to do an undertaking
24 to specify what that would be.
25 THE CHAIRPERSON: Okay. Thank you. I

1 want to go back to Richard Mercredi.
2 MR. RICHARD MERCREDI: No further
3 questions, Mr. Chairman. Thank you.
4 THE CHAIRPERSON: Thank you. I want to
5 go to Board member, Danny Bayha.
6 MR. DANNY BAYHA: Thank you, Mr. Chair.
7 I had a couple of questions. I understand that you --
8 earlier there was some reference to you have the
9 authority to issue permits within the area of the
10 national park. So if that's the case of issuing permits
11 you would have a process of issuing por -- permits.
12 Would that process be similar to what
13 we're doing now? That -- would you have hearings? Would
14 -- would that be a transparent process? Would First
15 Nations be involved with that, or what kind of different
16 agencies -- government agencies be involved?
17 Would you just give us a -- an idea,
18 possibly, what that process might be? Thank you.
19 THE CHAIRPERSON: Thank you. Parks
20 Canada...?
21 MS. KATHERINE CUMMING: Katherine
22 Cumming. That's part of our memorandum of understanding
23 with the Land and Water Board, is that our process is
24 going to be aligned as closely as possible to theirs, and
25 so use the same ability to invite all parties to comment

1 on them and follow whatever process they do. So that's -
2 - that's our -- gonna be our process.
3 THE CHAIRPERSON: Thank you. Board
4 member, Danny Bayha?
5 MR. DANNY BAYHA: Thank you, Mr. Chair.
6 So ultimately some of the questions outstanding that
7 you're, sort of, seeking from Canadian Zinc in this case,
8 if you don't have some of those answers you will not be
9 issuing those permits. Can you possibly -- if that's the
10 case -- that could be the case. Thank you.
11 THE CHAIRPERSON: Thank you. Parks
12 Canada...?
13 MS. KATHERINE CUMMING: Katherine
14 Cumming. It's true, without some information we may not
15 issue permits.
16 THE CHAIRPERSON: Thank you. Danny
17 Bayha...?
18 MR. DANNY BAYHA: Thank you. The other
19 thing, earlier yest -- or, I think it was yesterday that
20 Mr. -- or, Chief Antoine mentioned about certainly his
21 hope that once the mine has ceased to operate and has
22 reclaimed the area that it will come back to Parks Canada
23 jurisdiction and they would be looking after that.
24 Should it happen that -- that monitoring
25 be required for the mine water -- just runoff if there's

1 -- the Company certainly predicts that the -- the amount
2 of metals and -- and tailings that would possibly be
3 going into the environment would be non-detectable or not
4 at all. Should that not happen -- and would Parks Canada
5 be -- be monitoring this mine water coming off if there
6 is -- once they -- once that happens in the future?
7 I just wanted to know if that would be the
8 case. Because this is kind of a unique situation, so
9 possibly if there was some thought down the line on that.
10 Thank you.
11 THE CHAIRPERSON: Thank you. I want to
12 go to Parks Canada.
13 MS. KATHERINE CUMMING: Katherine
14 Cumming. At this point there's no commitment that Parks
15 Canada will take over that area into the future. That is
16 too far in the future for us to speculate about.
17 THE CHAIRPERSON: Okay. Thank you.
18 Board member, Danny Bayha.
19 MR. DANNY BAYHA: Thank you. No further
20 questions.
21 THE CHAIRPERSON: Thank you. I want to
22 go to Board member, Peter Bannon.
23 MR. PETER BANNON: Thank you, Mr. Chair.
24 Peter Bannon. I have a question in relation to the --
25 the water quality objectives.

1 You have stated that you supported DIAND's
2 approach. And is it -- and -- and on the basis that
3 you're trying to achieve your objective of ecological
4 integrity, meaning, don't deviate from the background
5 beyond natural variation, are there -- or, have you
6 identified other likelihood of impacts that would occur
7 or might occur if, let's say, for some of the parameters,
8 as the proponent has suggested, might go up to CCP
9 levels?
10 THE CHAIRPERSON: Thank you, Peter
11 Bannon. I'm going to go Parks Canada.
12
13 (BRIEF PAUSE)
14
15 MS. KATHERINE CUMMING: Katherine
16 Cumming. It is based on our definition of ecological
17 integrity that we believe the starting point should be
18 the reference condition approach. The -- there has been
19 no analysis of what the impacts would be of going up to
20 the CCME guidelines, and that's part of our sort of
21 concern.
22 THE CHAIRPERSON: Thank you. I'm going
23 to go back to Peter Bannon. Okay. No further questions?
24 MR. PETER BANNON: Peter Bannon. No
25 further questions.

1 THE CHAIRPERSON: Okay. Thank you, Peter
2 Bannon. Okay. We're going to stop there now. I think
3 we're done with questions, so I'm going to say thank you
4 to Parks Canada for your presentation, and we'll take a
5 ten (10) minute break, we'll come back.
6
7 --- Upon recessing at 2:17 p.m.
8 --- Upon resuming at 2:35 p.m.
9
10 QUESTION PERIOD RE NRCAN RESOURCES:
11 THE CHAIRPERSON: I want to go to
12 Environment Canada. I just heard good news that your
13 presentation was fifty-three (53) pages long, and you put
14 it down to ten (10) to fifteen (15), is that correct?
15 Oh, NRCan guy. Oh, sorry, wrong guy. But
16 hold that thought. I hope you guys heard me back -- back
17 there, eh? Okay. Okay. So NRCan here is up here, and
18 there are going to be some questions. Even though they
19 didn't do a presentation, it's in -- it's been -- it's in
20 our booklets. It's already on the registry, so I believe
21 there -- there want to be some questions asked, a couple
22 of questions. But I -- I -- by Canadian Zinc, so I
23 thought maybe it'd be better -- I don't know if you -- if
24 you guys all had the opportunity to look at that
25 presentation in your binders by NRCan. They all did.

1 So what I'm going to do is, if there's --
2 I'm just going to quickly go through the list, and I'm
3 going to ask that if there's any questions that you have
4 on their presentation in their binders, and that's also
5 already in the public registry. So just to be in
6 fairness with everybody else. So otherwise we could go
7 directly to Canadian Zinc, but it's not fair, so I want
8 everybody to have an opportunity to -- to say yes or no,
9 they have questions.
10 So I'm -- I'm just going to go on to
11 Government of Canada (sic). Do you have any questions
12 for NRCan in regards to their presentation in the binder
13 that they have? That'd be the Government of Northwest
14 Territories. Okay. If they're not here, I'm going to
15 move on to Indian and Northern Affairs. These guys have
16 got to be in the building.
17 MR. GAVIN MORE: Gavin More. Gavin More,
18 GNWT. We have no questions.
19 THE CHAIRPERSON: Thank you. And I don't
20 blame you going outside. It's nice and cool. Okay.
21 Indian and Northern Affairs, any quick questions for
22 NRCan in regards to the presentation they have in the
23 binder?
24 MR. ROBERT JENKINS: Mr. Chair, Robert
25 Jenkins with INAC. We don't have any questions.

1 THE CHAIRPERSON: Thank you. Fisheries
2 and Oceans Canada, any questions for NRCan?
3 MS. BEVERLEY ROSS: Bev Ross, Fisheries
4 and Oceans Canada. No, Mr. Chair, we don't have any
5 questions for NRCan.
6 THE CHAIRPERSON: Thank you. Nahanni
7 Butte Dene Band...?
8 MS. PETER REDVERS: Peter Redvers, Naha
9 Dehe Dene Band. No questions for Natural Resources
10 Canada.
11 THE CHAIRPERSON: Thank you. Parks
12 Canada, any questions for NRCan?
13 MS. KATHERINE CUMMING: Katherine
14 Cumming, Parks Canada. No questions, Mr. Chair.
15 THE CHAIRPERSON: Geez, this is going
16 really good. Thank you. It's hot in here.
17 Anyway, Dehcho First Nation, Mr. Joe
18 Acorn...?
19 MR. JOE ACORN: Yes, Joe -- Joe Acorn. I
20 have a few questions.
21 THE CHAIRPERSON: Please proceed.
22 MR. JOE ACORN: Section 332 of your
23 technical report, page 11, you state:
24 "A -- a thorough seismic hazard
25 assessment should be performed at this

1 site."
2 And that:
3 "The seismic hazard during the
4 operations phase of the mine and the
5 stability of the water storage pond
6 will likely dominate the seismic risk
7 assessment."
8 It seems to me that something like this
9 should be done and completed as part of the impact
10 assessment. So, you kind of throw this out there, but I
11 don't really see a recommendation for when and how this
12 gets done.
13 So what -- what is the intention here?
14 THE CHAIRPERSON: Thank you, Mr. Acorn.
15 I'm going to go to Natural Resources Canada.
16 MR. FONS SCHELLEKENS: Fons Schellekens,
17 Natural Resources Canada. The -- the reason of -- let me
18 back up. Natural Resources Canada reviewed the seismic
19 hazard information provided by the proponent and it's
20 something that we typically do for any proposed -- for
21 every proposed project. All the information that we
22 typolical -- typically request in an environmental
23 assessment was provided by Canadian Zinc.
24 And the -- the next phase, final design,
25 what we need to know for that phase is if the proponent

1 is going to design all project facilities and project
2 elements to the appropriate codes and standards which are
3 prescribed by the National Building Code and recheck that
4 the proponent is going to do that. They cited the right
5 building codes, so for us, that -- yeah, that is factor -
6 - satisfactory to us.
7 THE CHAIRPERSON: Thank you. Joe
8 Acorn...?
9 MR. JOE ACORN: Joe Acorn. But when is
10 that going to be filed? I mean, that -- that sounds to
11 me the type of information that this Board would want to
12 have on the record for this EA. It's a -- it's a risk
13 analysis, it's an impact assessment type document.
14 THE CHAIRPERSON: Okay. Thank you. I'm
15 going to go to Natural Resources Canada.
16 MR. FONS SCHELLEKENS: No, that is
17 typically not what you get in any environmental
18 assessment because that is final design. In an
19 environmental assessment process as -- we need to know
20 if the appropriate design is there so that there won't be
21 any potential significant effects.
22 Now the National Building Code is designed
23 that -- actually to a higher standard than that, that --
24 that nothing happens to buildings and so, yeah. For us,
25 at this time in the process -- so, to ask anything more

1 than that, that would be far and beyond what we regular -
2 - what our normal procedures are.
3 THE CHAIRPERSON: Okay. Thank you. Joe
4 Acorn...?
5 MR. JOE ACORN: Joe Acorn, but you still
6 didn't answer my question as to when you expect this to
7 be done. Is this a commitment that's going to be done
8 then before it's licensed, or is this going to be a
9 condition of a land use, or land use permit? Where do
10 you see this being finished? When was the commitment to
11 Canadian Zinc to get this done?
12 THE CHAIRPERSON: Thank you. Park --
13 sorry, Canada Natural Resources.
14 MR. FONS SCHELLEKENS: Fons Schellekens,
15 Natural Resources. That is typically in final design.
16 So we -- we have now pre -- preliminary design plans.
17 They're all part of the environmental assessment process.
18 And final design, that is -- that will include all the
19 details.
20 And when -- when all the regulators that
21 hand out water licences, for example, want NRCan to
22 review this, say our seismic hazard expert, they -- the
23 regulators can request NRCan to review those.
24 THE CHAIRPERSON: Okay. Thank you. Joe
25 Acorn...?

1 MR. JOE ACORN: Joe. Sorry, I still
2 don't get it. I'm not getting a clear answer from you,
3 but maybe I'll -- I'll go onto the next one (1) here.
4 Four four four (444) recommendations, page 20, and it's
5 the same kind of question here. The developer will
6 conduct -- or the developer will conduct prior to final
7 design of the water -- water storage pond the additional
8 geotechnical investigations.
9 So where again do you see this fitting
10 into this review process and the regulatory process?
11 THE CHAIRPERSON: Thank you. I'm going
12 to go to Natural Resources Canada.
13 MR. FONS SCHELLEKENS: Fons Schellekens,
14 Natural Resources Canada. Yeah, to the same phase, it's
15 final design. And obviously we are not there because
16 final design comes after the EA phase is finished. What
17 we need to know in the environmental assessment phase is
18 a clear assurance that the -- the appropriate -- that --
19 that the appropriate elements are there and will be used
20 in that final design.
21 THE CHAIRPERSON: Okay. Joe Acorn...?
22 MR. JOE ACORN: Joe Acorn. I'm trying to
23 get a straight answer out of you and I'm not getting it.
24 Where do you see this final design? It's this
25 geotechnical investigations and the design of the water

1 storage plant. Is this something that needs to be done
2 before this thing is licensed? Where does final design
3 fit in the regulatory process?
4
5 (BRIEF PAUSE)
6
7 THE CHAIRPERSON: Yeah, please proceed.
8 MR. FONS SCHELLEKENS: Fons Schellekens,
9 Natural Resources Canada. Yeah, this -- this is -- there
10 are always in every proposed project there will be not
11 all the details of design are known in the environmental
12 assessment phase. And what we need to know in the
13 environmental assessment phase is the -- the preliminary
14 design, and what the proponent exactly is -- is planning
15 to do, certain details they will -- certain details about
16 design will -- will only be known just when you break
17 ground for example. So we cannot know everything at this
18 phase of the process.
19 So it would be highly unreasonable for us,
20 and highly impractical to request that everything would -
21 - is known at this phase of the process because that --
22 that would require the proponent to go and break ground.
23 And -- and perhaps already create some effects there.
24 THE CHAIRPERSON: Okay. I'm just going
25 to ask Joe --

1 MR. JOE ACORN: Just one (1) more.
2 THE CHAIRPERSON: One (1) more, okay.
3 MR. JOE ACORN: And it's not really a
4 question, I'll just state it upfront. I think the
5 geotechnical investigations and the final design of the
6 water storage plant should take place before this project
7 receives a water licence from the Land and Water Board.
8 And if you differ from that opinion I'd like to know
9 that, but that's what I'm putting out there.
10 THE CHAIRPERSON: Okay. Thank you. In
11 plain language, if you could answer that.
12 MR. FONS SCHELLEKENS: Yes, Fons
13 Schellekens, Natural Resources Canada. So our reviewers
14 -- the reviewers of Natural Resources Canada, they have
15 reviewed the project and came to the conclusion that we
16 have the information that we need for this phase of the
17 process and that there are -- we have made for some
18 elements some recommendations as where we -- where --
19 where additional information is required in a later
20 phase. So -- and those recommendations we -- we list in
21 our technical report. So -- and -- I'll leave it at
22 that.
23 THE CHAIRPERSON: Okay. Thank you. And
24 I want to thank Joe for his comments and questions. I'm
25 going to go to Environment Canada. Any comments,

1 questions?
2 MS. ANNE WILSON: Anne Wilson,
3 Environment Canada. No questions, thank you.
4 THE CHAIRPERSON: Okay. Thank you.
5 Transport Canada...?
6 MR. CHRIS AGUIRRE: Chris Aguirre,
7 Transport Canada. I have no questions either.
8 THE CHAIRPERSON: Thank you. Liidlii Kue
9 First Nation Chief...?
10
11 (BRIEF PAUSE)
12
13 THE CHAIRPERSON: Thank you. Canadian
14 Zinc Corporation, questions...?
15 MR. DAVID HARPLEY: David Harpley. I
16 have two (2) questions/comments. The first one relates
17 to Recommendation 10, and the recommendation talks to the
18 conducting of a more detailed larger-scale mapping
19 inventory or risk assessment of landslides in the area,
20 specifically with reference to the water storage pond and
21 the access road.
22 I guess we're not sure why, or what the
23 purpose or objectives of this assessment would be given
24 that if nothing was built at this point we could
25 understand the objective of -- of doing more study to

1 demonstrate there's not an issue. But when the structure
2 is already built, so it's not like we can move it if
3 there's a problem. And also the structure's been there
4 for approximately thirty (30) years already, and there's
5 no indication of instability in -- in these areas as
6 assessed by our terrain consultant.
7 So we're not sure what the purpose of this
8 study would be or how useful it might be. I know Fons
9 it's -- it's not your field, but we will be looking for
10 clarification from NRCan as to why it would be necessary.
11 THE CHAIRPERSON: Thank you for your
12 first of two (2) questions. I'm going to go to Natural
13 Resources Canada.
14 MR. FONS SCHELLEKENS: Fons Schellekens,
15 Natural Resources Canada. I -- I can actually answer
16 this question. And -- and I think this -- this may
17 require just a little bit more clarification. And what -
18 - what we are looking for for the -- the access road is
19 exactly -- it -- it's my understanding that despite the
20 fact that there was once an access road, in most spots
21 it's -- it's overgrown and it's -- it's not -- not in a
22 state that this -- that it can be readily used.
23 And so what -- what we expect there is
24 that -- just be -- before construction that -- that there
25 is a -- I -- I have alluded to this before in -- in the

1 technical meetings, that it is -- that it is kind of our
2 understanding that an engineering consultant will be
3 advising Canadian Zinc on -- on the construction of the
4 road and will take into account, say, geohazards that may
5 occur along the access road, and perhaps in slightly more
6 detail than have occurred in -- or -- or that have been
7 provided in Appendix D I believe it was.
8 THE CHAIRPERSON: Okay, thank you. I'll
9 go to Canadian Zinc on your second question.
10 MR. DAVID HARPLEY: David Harpley. Just
11 to finish that one off. I -- I think we can consider
12 that a commitment. We're happy -- happy to do that. We
13 are planning more investigation on the alignment. So if
14 -- well, we would commit to do -- re-evaluating geohazard
15 prior to construction, so it's a commitment to do that,
16 perhaps in the permitting phase would be most
17 appropriate.
18 The second question relates to
19 Recommendation 12. The recommendation talks to planning
20 for hydro-geology and geoda -- geochemistry data
21 collection. And the intent of this recommendation is to,
22 we understand, make sure we are clear on what sort of
23 data is going to be collected and how it's going to be
24 collected and that the data collection is for the
25 monitoring phase of the -- or the operations phase of the

1 project.
2 It's -- it's not something that NRCan is
3 looking to get as part of the EA process. In fact, our
4 geochemist has had direct discussion with the NRCan
5 geochemist and it seems that they've come to an agreement
6 on the questions that were posed and the -- the
7 monitoring program. So, essentially, we've, as far as we
8 understand, complied with this recommendation, and we
9 just want to confirm that's the case.
10 THE CHAIRPERSON: Okay, thank you. I'll
11 go back to Natural Resources Canada.
12 MR. FONS SCHELLEKENS: Fons Schellekens,
13 Natural Resources Canada. And -- and this -- this is a
14 point that I cannot answer and -- but I am aware that our
15 geochemist has had a conversation with the proponent
16 earlier this week, and wha -- whatever was said in -- in
17 that conversation, we -- we will undertake to -- to get
18 the contents of that conversation on -- on the record.
19 THE CHAIRPERSON: Thank you. Then we'll
20 take that as an undertaking. We'll -- I guess we'll go
21 the date of July 8th as well at 4 p.m.
22 Will that be sufficient time?
23 MR. FONS SCHELLEKENS: Yes.
24
25 --- UNDERTAKING NO. 4: NRCan to provide the contents

1 of the conversation that
2 occurred earlier this week
3 between NRCan's geochemist
4 and the proponent
5
6 THE CHAIRPERSON: Okay. All right.
7 Thank you. Any further questions from Canadian Zinc?
8 Thank you. Sorry? Can you -- I guess you'll repeat that
9 undertaking to get that information to us by July 8th?
10 MR. FONS SCHELLEKENS: Sir, that -- that
11 was a conversation that took place between our geochemist
12 and Canadian Zinc on Tuesday.
13 THE CHAIRPERSON: Thank you. Okay. I
14 want to go to legal counsel, questions for Natural
15 Resources Canada?
16 MR. JOHN DONIHEE: I have no questions,
17 Mr. Chairman.
18 THE CHAIRPERSON: Thank you. The
19 staff...?
20 MR. CHUCK HUBERT: No further questions,
21 Mr. Chair.
22 THE CHAIRPERSON: Thank you. Board
23 member to my far right, Mr. Peter Bannon...?
24 MR. PETER BANNON: Thank you, Mr. Chair.
25 I have no questions.

1 THE CHAIRPERSON: Thank you, Mr. Bannon.
2 Mr. Danny Bayha, Board member.
3 MR. DANNY BAYHA: I just have one (1)
4 quick question. Thank you, Mr. Chair.
5 In your slides that you have, or in one
6 (1) of your presentation, it says:
7 "NRCan to provide earth science and
8 mine waste expertise."
9 When you're providing this expertise do
10 you use any traditional knowledge in the area when you
11 review some of these projects? Thank you.
12 THE CHAIRPERSON: Thank you. Natural
13 Resources Canada...?
14 MR. FONS SCHELLEKENS: Fons Schellekens,
15 Natural Resources Canada. The -- the input that we
16 provided was -- was coming from scientists with Natural
17 Resources Canada on the topics listed on slide 4 I -- I
18 think it is. Yeah, NRCan's role in the review, yeah. So
19 we have engaged about six (6) expert reviewers, and
20 traditional knowledge we have not engaged.
21 THE CHAIRPERSON: Okay. Thank you. I'm
22 going to go back to Danny Bayha. Any further questions?
23 MR. DANNY BAYHA: Sir, just a follow-up
24 question: Do you know why that is? Thank you.
25 THE CHAIRPERSON: Thank you. Canada --

1 sorry, Natural Resources Canada...?
2 MR. FONS SCHELLEKENS: Fons Schellekens,
3 Natural Resources Canada.
4 The reason for that is that we just
5 provided what -- what we had in-house. And we don't have
6 an -- as far as I -- I'm aware of, an expert in
7 traditional knowledge within NRCan, so it's -- we just
8 used in-house expertise. Yeah, I -- I'll leave it at
9 that.
10 THE CHAIRPERSON: Thank you. Board
11 member, Danny Bayha...?
12 MR. DANNY BAYHA: Okay. I guess, maybe
13 the point -- the question was: Have you -- you consulted
14 any of the community local people about the area when you
15 were forming your opinion, I guess, was my -- my
16 question, not that you have somebody in-house that's
17 hired full-time as a traditional expert -- or, a
18 traditional knowledge expert, but if -- if you did that
19 was just my question in -- in that area. But -- so,
20 Thank you.
21 THE CHAIRPERSON: Thank you. Natural
22 Resources Canada...?
23 MR. FONS SCHELLEKENS: Fons Schellekens,
24 Natural Resources Canada. I think I'm -- I'm going here
25 out of my depth again. So I am representative of the

1 geological survey of Canada, which doesn't hand out any
2 permits.
3 The -- the only permit that Natural
4 Resources hands out is the explosives permit, which
5 indeed may be handed out for this project. But that's
6 not a sector, so I'm -- I'm also willing to take an
7 undertaking actually there, if -- if one can be
8 formulated for me to take home.
9 THE CHAIRPERSON: I'm going to go back to
10 Board member Danny Bayha.
11 MR. DANNY BAYHA: Yeah, that would be
12 fine. I think it's just more of NRCan's policy in
13 incorporating traditional knowledge in the review
14 projects, especially in the north where there -- there
15 might be some experience by the local communities. That
16 would be helpful in -- because a lot of times, in areas
17 that are remote, where there may not be scientific data
18 or baseline data, or seismic data in your case, that
19 knowledge might be gained through other means, not just
20 scientific data. So I guess, if there's a possibility
21 that NRCan can provide some information on their
22 possibility of engaging or -- or thoughts that they would
23 have that possibly that could fit within their own
24 department, that -- that could happen in the future.
25 Thank you.

1 THE CHAIRPERSON: Thank you. Danny, does
2 that conclude your questions?
3 MR. DANNY BAYHA: Yes, thank you, Mr.
4 Chair.
5 THE CHAIRPERSON: Thank you. I want to
6 go to Richard Mercredi, Board member.
7 MR. RICHARD MERCREDI: Thank you. Thank
8 you, Mr. Chairman. I don't have any questions for NRC at
9 this time.
10 THE CHAIRPERSON: Okay. Thank you. I'm
11 going to go to Rachel Crapeau. Questions for Natural
12 Resources Canada...?
13 MS. RACHEL CRAPEAU: I don't have a
14 question, but I've got a -- an observation that I just
15 want to share with you. Elders in my communities have
16 noted ground movement and ground activity that affected
17 wildlife, water, and especially in our area because of
18 the years of underground mining activity and explosions,
19 explosives being used.
20 So when it came to going to a meeting like
21 this, their comments were very interesting to note
22 because I think I heard yesterday or today that there's a
23 fault line that is in the area of where this project's
24 going to be taking place. And I'm thinking maybe
25 there'll be some -- something happening with the fault

1 line. And if Isador (phonetic) was with me today, he'll
2 say the ground developed more cracks and more fissures
3 and -- and it fractures.
4 So there's always activity happening and
5 groundwater flows, and that's why I'm hoping that, maybe
6 in the future, your department would try to seek
7 traditional knowledge holders, and especially in this
8 area because there's a big difference between what the
9 landscape here is like versus where I come from. Thank
10 you.
11 THE CHAIRPERSON: Thank you, Board member
12 Rachel Crapeau. Questions from Percy Hardisty?
13 MR. PERCY HARDISTY: Mr. Chair, I don't
14 have any questions.
15 THE CHAIRPERSON: Thank you. Board
16 member Mr. James Wah-Shee?
17 MR. JAMES WAH-SHEE: Mr. Chair, I have no
18 question either, thank you.
19 THE CHAIRPERSON: Thank you, Mr. Wah-
20 Shee. Mr. Darryl Bohnet, Board member.
21 MR. DARRYL BOHNET: Thank you, Mr. Chair.
22 I have no questions.
23 THE CHAIRPERSON: Okay. Thank you. We
24 could move on. Thank you very much, Natural Resources
25 Canada, Fons Schellekens. Mahsi. Okay.

I'm going to go get Environment Canada. I was just so happy earlier that they said they brought it down, so fifteen (15), I'm told, so right on. Thank you.

(BRIEF PAUSE)

THE CHAIRPERSON: Maybe, Anne, if you could also introduce your delegation as well.

PRESENTATION BY ENVIRONMENT CANADA:

MS. ANNE WILSON: Thank you, Mr. Chairman. My name is Anne Wilson, and I work with Environment Canada as a water pollution specialist. With me today are Jane Fitzgerald of EC on my immediate left, and Aileen Stevens of the GNWT on my far left. Aileen is helping us today with aspects of contaminants, management, and air quality, as she works closely with our air specialist who couldn't be here.

So I will be covering the water section, Aileen will be speaking to the contaminants, management and air aspects, and Jane will present the wildlife section.

The section on water quality focuses on five (5) main areas. And I will mention that we are giving you the Reader's Digest version of this

1 presentation. I trust that details from the technical
2 report will be available to people for questions and you
3 can just slow me down if I go too fast, okay.
4 So with respect to receiving environment
5 objectives, the purpose of these is to protect the
6 receiving environment for the most sensitive use at a
7 specified site. Environment Canada has five (5)
8 recommendations with respect to these objectives.
9 First, any change from background water
10 quality will potentially result in changes to the
11 ecosystem. Setting objectives for the Prairie Creek
12 downstream of the proposed mine involves a value judgment
13 as to the degree of change which is acceptable and how
14 far down the receiving environment stream that that
15 change is acceptable. Environment Canada recommends
16 further discussions on appropriate site specific water
17 quality objectives. To preface my second recommendation,
18 achieving the objectives will rely on having good data on
19 the upstream conditions.
20 So our second recommendation is that low
21 detection limits will be needed for the onsite analytical
22 instruments if they are to be used for aquatic effects
23 monitoring and for load management, unless to evaluate
24 whether the mine is meeting its water quality objectives.
25 The third recommendation is with respect

1 to winter water data. Winter baseline water quality data
2 for Prairie Creek should be augmented to strengthen the
3 dataset and Canadian Zinc Corp should subsequently use
4 this data to review the site specific water quality
5 objectives.
6 Four, low level mercury analysis should be
7 done for upstream samples both in summer and under ice
8 and results used to re-evaluate the objectives for
9 mercury. And we'll note that nitrate was left off the
10 current list of site specific water quality objectives.
11 It was on the earlier lists and in the tables that were
12 derived. We do recommend there be an objective for
13 nitrite and that the lower value that has been proposed
14 in Appendix D be used.
15 The next slides deal with effluent
16 quality. To avoid predicted exceedances of analytes in
17 Prairie Creek, Canadian Zinc proposes to base discharges
18 on loading limits. We've heard a bit about the approach
19 that they have proposed. It involves burying the
20 proportion of treated process water in the discharge to
21 maintain receiving environment water quality objectives
22 at the edge of the initial dilution zone.
23 Use of the load-based approach to managing
24 process water concentrations adds another layer of
25 complexity to a water management regime that does not

have a lot of excess storage capacity in the event of system upsets and other events that limit the ability to discharge. It can be done but it wouldn't be easy. Upstream flow levels can likely be monitored on a realtime basis, but our person who is the expert in these things tells me that there isn't an existing relationship for determining winter flows as ice amounts change from year to year and throughout the season.

An additional factor is the lack of baseline data for under ice water quality. Effluent quality would need to be analyzed on an ongoing basis as it is expected that there will be variation in quality with aging as well as with mine water quality.

So whether the proposed on-site lab or a commercial lab is used, low detection limits would be very important. If this proach -- approach, rather, the load-based approach is to be implemented, it should be after commissioning of the processing and treatment systems during a period of higher flows, such that loads would not need to be managed until they have a really good understanding of the effluent quality.

Environment Canada has three (3) recommendations for effluent quality. First, alteration of the water quality in Prairie Creek will need to be minimized through achieving the best possible effluent

1 quality and careful management of discharges. Further
2 details should be developed to determine if the use of a
3 load-based approach would be feasible. Next, maintaining
4 the 500:1 ratio of creek water to process water would
5 also rely on real-time flow data. This option should be
6 further developed. And then, increasing storage capacity
7 of the water storage pond, which has been mentioned in
8 the last submission from Canadian Zinc, should be
9 evaluated for feasibility and the implications on water
10 balance and management.
11 So next we'll look at nutrients. I was
12 assured that you didn't want the names of all the
13 creatures living here, they're more or less
14 representative of ones that you would expect to see in
15 the creek. So we've already seen mild enrichment in
16 Prairie Creek, which is an ultraoligotrophic extreme,
17 that means it has very low phosphorous, it doesn't have a
18 complex food web, and it's low productivity. Phosphorous
19 and nitrogen will be added to the stream from mine
20 effluent, from blasting resiview -- residues, from camp
21 wastewater, and from surface runoff. Sustained inputs of
22 these nutrients can result in habitat alteration and
23 changes in abundance and composition of the algal and
24 invertebrate communities, and it may increase fish
25 production. In a system with very, very low phosphorous,

1 such as this one, small increases can have measurable
2 effects. And I'll start right down with the algal --
3 like the -- the slimy stuff that grows on the rocks, the
4 periphyton.
5 We have three (3) recommendations with
6 respect to nutrients. Firstly, nutrient releases should
7 be minimized through the use of mitigation measures to
8 prevent releases of nitrogen compounds and to reduce
9 phosphorous releases through optimizing the wastewater
10 treatment. Next, monitoring of nutrient concentrations
11 and discharges and the receiving environment should be
12 done on an ongoing basis with results linked to
13 observations of biota under the aquatic effects
14 monitoring plan. Environment Canada supports the
15 proposed licence limit of zero point two (0.2) milligrams
16 per litre maximum average for phosphorous. And it's
17 recommended that if the AEMP identifies any changes that
18 may become ecologically significant impacts that this
19 would be revisited.
20 Next we'll look at toxicity. We've heard
21 a little bit a -- about the work that's been done by the
22 Company for toxicity testing. Bioassay tests are a
23 useful tool to help us evaluate the whole effluent
24 quality for toxicity. Canadian Zinc's toxicity testing
25 show that process water was acutely toxic, while mine

1 water was not. Blends of process water and mine water
2 were tested for chronic toxicity. The work provided good
3 information, but as previously noted by others, there
4 were a few questions remaining about the -- the
5 Ceriodaphnia results.
6 Environment Canada has one (1)
7 recommendation on toxicity. Predictions for mixing and
8 receiving environment concentrations of the various
9 parameters should be validated at the commencement of
10 operations and conditions monitored on an ongoing basis
11 to ensure chronic toxicity does not extend beyond the 100
12 metre initial dilution zone. And I'll just note that
13 under the metal mining effluent regulations, the Company
14 will be required to do regular acute and subla -- or
15 chronic toxicity testing of their effluent.
16 Next we'll look at monitoring. I don't
17 know if any of you who have been around a long time
18 recognize the person in the creek there. That is Steve
19 Harbik (phonetic) who worked for Environment Canada for
20 many years. He did a fair bit of mount -- a fair bit of
21 work while he was at Fisheries. So I thought I'd use his
22 picture for the monitoring slide.
23 It is important in the environmental
24 assessment stage for us to have good confidence in the
25 proponent's ability to detect change and act upon it.

1 This entails having a solid understanding of the baseline
2 conditions and a robust sampling design that will fulfill
3 the various regulatory requirements without duplication
4 or overlap, and that will provide timely information on
5 receiving environment conditions for management response
6 most importantly.
7 Environment Canada has three (3)
8 recommendations on monitoring. EC recommends that
9 further work be done to develop an aquatic monitoring
10 plan that will enable the proponent to detect changes to
11 the downstream environment and act upon it before changes
12 become impacts. The monitoring plan should have the
13 elements of other requirements -- the surveillance
14 network program, environmental effects monitoring,
15 whatever the water licence program is -- harmonized with
16 respect to sampling sites and reporting, acknowledging
17 that there will be different timing cycles for different
18 monitoring requirements. We do support the use of the
19 INAC guidelines.
20 An adaptive management plan should be
21 drafted that does not incorporate multiple exceedances of
22 -- of objectives before action is triggered. We felt
23 that was a weakness of the most recently proposed plan.
24 And, lastly, Environment Canada supports the input of the
25 stakeholders' committee mentioned in the commitments

1 table, line 2, into the design and monitoring programs.
2 At this point, I'll turn the presentation
3 over to Aileen, who will discuss contaminants management
4 and air issues.
5 MS. AILEEN STEVENS: Thank you, Anne.
6 Aileen Stevens, GNWT. Mr. Chair, in the next few slides,
7 I will focus on managing contaminants associated with
8 mine activities and, in particular, the transport of lead
9 zinc concentrate, and contaminants associated with the
10 incineration of waste and on air quality. The proponent
11 has provided outlines of contaminants, incineration and
12 air quality management plans. We would simply like to
13 expand on these management plans and anchor these
14 commitments as recommendations from the Board.
15 The contaminant loading that we are
16 concerned about with this mine is the deposition to land
17 and water of dust that contains metals, particularly,
18 dust that contains lead and zinc. This is not an air
19 quality issue. Our focus is not with ambient
20 concentrations of metals in the air. We are concerned
21 with the potential for metals to accumulate in soils,
22 vegetation and water bodies near the mine site and along
23 the transportation corridor through the Nahanni National
24 Park and the winter road. Contaminant loading can occur
25 from fugitive dust from the mine operations and the

1 transport of concentrate.
2 From mine op -- mine site operations, dust
3 can be generated by mining activities such as drilling
4 and blasting; from materials handing activities,
5 including truck haulage activities; placement of waste
6 and movement of waste rock, pardon me; and the
7 stockpiling of ore. Dust can be generated from mill and
8 concentrate storage facilities, from the ore crushers,
9 the coarse ore stockpile building, and from concentrate
10 storage and loading operations. And windblown dust can
11 be generated from surfaces around the mine, including the
12 access roads and yards and other mineralized surfaces.
13 From the transportation of concentrate,
14 tracking along haul roads can be an important source of
15 contaminated dust. Ore concentrate can be tracked out of
16 loading and unloading facilities on haul truck tires and
17 other truck surfaces, and subsequently deposited onto the
18 road. Concentrate spillage and escapement from haul
19 trucks is another source of contaminated dust. This
20 includes leakage from bags on the trucks, residual dust
21 blowing off the surface of the bags, or spillage from
22 overturned trailers following accidents, and loading and
23 unloading at transfer sites.
24 The Red Dog lead and zinc mine in Alaska
25 provides an example of how mine activities and

1 transportation of lead and zinc concentrate can lead to
2 the contamination of soil, vegetation and water bodies.
3 Although the Red Dog Mine is larger than the proposed
4 project, both mines will have similar activities, as both
5 are lead and zinc mines that include on-site processing
6 of ore and transportation of lead and zinc concentrate by
7 trucks -- through a national park, I might add.
8 Therefore, there is potential that the Prairie Creek Mine
9 will have similar environmental issues as the Red Dog
10 Mine.
11 In EC's written intervention, we have
12 provided details from a number of studies and reports on
13 the Red Dog Mine. The studies have shown that there are
14 elevated levels of metals, including lead, zinc and
15 cadmium, near the mine site and along the haul road.
16 Elevated levels of metals have been found in vegetation,
17 soils, streams, stream sediment and fish. The source of
18 the contamination has been found to be fugitive dust from
19 mine activities, and the transport of concentrate from
20 the Red Dog Mine.
21 After the contaminant loading issues were
22 discovered, the Red Dog Mine implemented a number of
23 mitigation strategies that have significantly reduced the
24 amount of fugitive dust. Examples of these include
25 loading bays under negative pressure, bag house

1 treatment, a wash bay for the trucks, and sealed trucks
2 for transportation. An important part of the mitigation
3 program was ambient and dustfall monitoring to assure
4 that the mitigation efforts were effective.
5 An example closer to home. Soil samples
6 from the old CNR railway bed that the original Pine Point
7 Mine used to haul lead and zinc concentrate to Hay River,
8 have been found to exceed the CCME soil quality
9 guidelines for lead and zinc. The pathway of this
10 contamination is linked to contaminant loading from the
11 transportaton of the mine concentrate.
12 For the Prairie Creek Mine, the risk of
13 contaminant loading from the transport of lead and zinc
14 concentrate from the mine site is of particular concern.
15 Unlike the Red Dog Mine, which uses mechanically sealed
16 trucks to transport concentrate, the Prairie Creek Mine
17 will load its lead-zinc concentrate into bags, and
18 transport those bags on flat-deck trailers. The bags
19 will be handled several times before travelling south to
20 Fort Nelson.
21 First, the bags are loaded at the mine
22 site and stockpiled, then hauled over the winter road to
23 the transfer station where the bags will be unloaded and
24 temporarily stored. When the eastern segment of the haul
25 road the ice bridge is open, the bags will be loaded

again on flat-deck trailers and hauled to the Liard transfer station.

The proponent needs to employ secondary containment for the flat-deck trailers to minimize the risk of concentrate spillage and escapement. To ensure that the lead-zinc concentrate is not being released to the environment, the proponent needs to conduct baseline dustfall and soil monitoring prior to the startup of mining activities, and continued monitoring throughout the operational life of the mine. Monitoring should be conducted around the mine site, the transfer stations, and along the haul road. The proponent needs to develop contingency plans which include action trigger levels in case contamination is found.

To minimize these potential risks, we recommend that the proponent develop and implement a contaminant loading management plan in consultation with EC and ENR. The objective of the management plan is to minimize the release of contaminants into the environment. The approach for the management plan should include: identify sources of dust releases; prevention steps to avoid contaminants from being released; evaluation of the prevention measures through monitoring; and if the prevention techniques are not working, the proponent needs to take adaptive management steps to

1 identify, mitigate and resolve any problems.
2 It is our opinion that this project has
3 the potential to adversely impact water quality,
4 sediments, soil, vegetation, fish and wildlife through
5 contaminant loading of metals. However, the risks of
6 potential environmental impacts can be managed and
7 mitigated, but there needs to be regulatory and
8 enforcement certainty. The risk of contaminant loading
9 is too serious to be left as an orphaned issue.
10 Therefore, we request the contaminant loading management
11 plan be included as a recommended measure in the Board's
12 report.
13 Specifically, we request the following
14 recommendations: the proponent develop and implement a
15 contaminant loading management plan, in consultation with
16 Environment Canada and the GNWT, and the proponent employ
17 secondary containment on the flat-deck trailers during
18 the transport of lead-zinc concentrate to mitigate
19 spillage or escapement due to bag malfunctions or
20 accidents.
21 As described in the EC written
22 intervention, there is potential for incineration to
23 release contaminants that can adversely impact the
24 environment, including dioxins and furans which are
25 persistent, toxic, and bioaccumulative. If an

1 incinerator is appropriately designed and operated, the
2 risk of the formation and release of incineration
3 contaminants to the environment can be minimized. An
4 incineration management plan is the best way to ensure
5 this is accomplished.
6 The proponent has provided an outline of
7 an incineration management plan in the DAR. The EC
8 written intervention provides advice on the development
9 of the incineration management plan. As with the
10 contaminant loading management plan -- pardon me. As
11 with the contaminant loading management plan, we request
12 the incineration management plan be included as a
13 recommended measure in the Board's report.
14 Our recommendation is that the proponent
15 develop and implement an incineration management plan
16 that is consistent with the advice provided in
17 Environment Canada's technical document for batch waste
18 incineration. The incineration management plan should be
19 developed in consultation with Environment Canada and the
20 GNWT.
21 There will be air emissions associated
22 with this project. The proponent conducted an air
23 quality assessment for the project, including dispersion
24 modelling of the predicted emissions. Based on this
25 assessment, the proponent has provided an outline of a

1 monitoring program and mitigation and adaptive strategies
2 management plan with the objective of minimizing the
3 risks of adverse environmental impacts from project air
4 emissions. This included monitoring and emission
5 reporting components.
6 As with the contaminant loading management
7 plan and the incineration management plan, we request
8 that the monitoring program and mitigation and adaptive
9 strategies plan be included as a recommended measure in
10 the Board's report. Our recommendation is that the
11 proponent develop and implement the monitoring program
12 and mitigation and adaptive strategies management plan in
13 consultation with Environment Canada and the GNWT.
14 Thanks.
15 MS. JANE FITZGERALD: Thanks Aileen.
16 I'll be presenting Environment Canada's comments on
17 wildlife. Our comments are divided into four (4) topic
18 areas. Our first topic area concerns the water storage
19 ponds, which I'll just be referring to as "the pond."
20 The pond will contain concentrations of
21 arsenic, lead and mercury that may exceed the CCME water
22 quality guidelines for livestock. However, water fowl
23 and water birds are known to use the pond in both the
24 spring and the summer and, as such, Environment Canada is
25 concerned that the elevated levels of contaminants may

1 pose a health risk. Given this, Environment Canada has
2 three (3) recommendations concerning the water storage
3 pond.
4 First, Canadian Zinc should follow up on
5 their commitment to implement scare tactics to prevent
6 water fowl and water birds from using the water storage
7 pond and should monitor the use of the pond by birds and
8 the efficacy of the scare tactics employed to deter them.
9 Second, monitoring reports should be sent
10 to Environment Canada and the reports should also include
11 the results of water quality monitoring in the pond from
12 the SNP program.
13 Thirdly, if Canadian Zinc finds that scare
14 tactics are not effective in deterring birds from using
15 the pond Canadian Zinc should work with Environment
16 Canada, specifically the Canadian Wildlife Service, to
17 identify alternative deterrents.
18 Moving on to species at risk. There are
19 eleven (11) species at risk in the area that could be
20 impacted by the mine. These include two (2) populations
21 of Woodland Caribou, both the Boreal and Mountain
22 populations, Grizzly bear, Short-eared owl, Peregrine
23 falcon, Wood bison, wolverine, as well as Rusty Back --
24 Blackbird, Common Nighthawk, the Olive-sided Flycatcher,
25 and the Horned Grebe. Canadian Zinc identified various

1 potential pathways for the mine to impact these species
2 but concluded that the significance of impacts to all
3 species at risk would be low to moderate.
4 We have three (3) recommendations
5 concerning species at risk. The primary mitigation
6 measure for each species should be avoidance. The
7 proponent should avoid contact with or disturbance to
8 each species.
9 Secondly, Canadian Zinc should consult
10 with Parks Canada and the GNWT as well as appropriate
11 status reports, recovery strategies, action plans and
12 management plans to identify other appropriate mitigation
13 measures to minimize impacts from the project.
14 Thirdly, the proponent should develop
15 monitoring plans for each species in accordance with any
16 applicable status reports, recovery strategies, action
17 plans and management plans and in consultation with Parks
18 Canada, the GNWT, and Environment Canada.
19 Our third wildlife topic relates to
20 vegetation clearing and maintenance. Vegetation clearing
21 during the migratory of bird breeding season which is May
22 7th to August 10th increases the risk of disturbing or
23 destroying nests and eggs of migratory birds, which is
24 prohibited. Activities requiring clearing and
25 maintenance would be construction of the winter access

1 road, clearing for the waste rock storage area and summer
2 road maintenance.
3 We also have three (3) recommendations for
4 this topic. First, vegetation clearing and roadbed
5 preparation for existing and proposed sections of the
6 mine access road should be conducted either before May
7 7th or after August 10th to avoid the migratory bird
8 breeding season. This would also include any blasting or
9 excavation at borrow sites -- excuse me, borrow sources
10 along the access road.
11 Second, vegetation clearing for the waste
12 rock storage area should also take place outside of the
13 migratory bird breeding season.
14 And, thirdly, for upper sections of the
15 access road undergoing summer maintenance, which may be
16 during the breeding season, Canadian Zinc should conduct
17 nest surveys before work commences. If an active nest is
18 found, the area should be avoided until nesting is
19 complete.
20 And our last wildlife topic is that of
21 predator and scavenger attraction. Artificial increases
22 to predator abundance from attraction to waste and the
23 provision of nesting, denning or roosting sites can
24 increase local predation on birds and their nests.
25 Canadian Zinc has proposed several measures to limit the

1 attraction of predators and scavengers. However, the
2 potential for the development of sites for avian
3 predators and scavengers was not addressed.
4 As such, our final recommendation is as
5 follows. The following predator control measures are
6 recommended: All wildlife should be prevented from
7 gaining access to liquid and solid waste and other
8 wildlife attractions such as petroleum products,
9 orientation for project personnel should include best
10 practices with regard to waste management and avoiding
11 wildlife, regular surveillance of facilities and project
12 waste sites for the presence of wildlife to ensure that
13 the preda -- excuse me, predator control measures are
14 effective and, finally, all structures should be designed
15 to preclude nesting and roosting sites for avian
16 predators, including ravens, or den sites for mammalian
17 predators. The proponent may consult with Environment
18 Canada, the Canadian Wildlife Service staff, regarding
19 design measures that could be taken.
20 MS. ANNE WILSON: Thank you, and that
21 brings me to our concluding statement. Environment
22 Canada has provided recommendations on aspects of the
23 proposed project which are within our mandated
24 responsibilities. Our overarching concern is with the
25 complexity of the project and the need for activities to

1 go exactly as planned in order for the management
2 activities and proposed mitigation to be effective and
3 protective.
4 The lack of redundancy in water and
5 tailing storage capacity means that there is little
6 margin to deal with unanticipated conditions.
7 Uncertainties inherent to predictions and with respect to
8 some of the baseline work mean that any development at
9 this site will need to be closely monitored and carefully
10 managed.
11 Environment Canada would be pleased to
12 participate in any of the technical committees proposed,
13 as appropriate. I'd like to thank the Board for the
14 opportunity to make this presentation, and ask if there's
15 any questions. No questions? Okay. We're out of here.
16
17 QUESTION PERIOD:
18 THE CHAIRPERSON: Thank you. I want to
19 say thank you for your presentation, and it -- you know,
20 revising your -- your presentation. Much appreciated.
21 Thank you for that.
22 I want to go to questions. I want to go
23 from Government of Northwest Territories questions to
24 Environment Canada on their presentation.
25 MR. GAVIN MORE: Thank you, Mr. Chairman.

1 I have no questions, but I would like to make a comment
2 to reinforce that the contaminant loading recommendations
3 will also help to protect the public on the public
4 highways in the NWT but also British Columbia as well.
5 THE CHAIRPERSON: Okay. Thank you. I'm
6 going to go to Indian Affair -- Indian and Northern
7 Affairs Canada.
8 MR. ROBERT JENKINS: Thank you, Mr.
9 Chair. It's Robert Jenkins with Aboriginal Affairs. Mr.
10 Zajdlik does have that one (1) question we mentioned
11 previously.
12 THE CHAIRPERSON: Please proceed.
13 MR. BARRY ZAJDLIK: Mr. Chair, my
14 question is: Can DFO -- Environment Canada comment on
15 changes in accumulation of metals in fish due to nutrient
16 inputs from the mine?
17 THE CHAIRPERSON: Thank you. I'm going
18 to go to Environment Canada.
19 MR. ANNE WILSON: Thank you, Mr.
20 Chairman. What Barry is looking at, I think, is whether
21 adding nutrients to the stream will result in there being
22 conditions that make it more likely mercury will be
23 available for fish to take up. This is a possibility.
24 The -- however, the levels of phosphorus that are
25 proposed to be maintained as objectives are pretty low.

1 They are in the ultra oligotrophic level. So that is a
2 question I can't say definitively yes or no. Will you
3 settle for a maybe.
4 THE CHAIRPERSON: Okay. Thank you.
5 Indian and Northern Affairs Canada, do you need a follow-
6 up or you're good?
7 MR. ROBERT JENKINS: It's Robert Jenkins
8 with Aboriginal Affairs. Thanks, Mr. Chair. We have no
9 more questions.
10 THE CHAIRPERSON: Thank you. I'm going
11 to go to the Fisheries and Oceans Canada.
12 MS. BEVERLEY ROSS: Bev Ross, Fisheries
13 and Oceans Canada has no further questions of Environment
14 Canada. Thank you.
15 THE CHAIRPERSON: Thank you. I'm going
16 to go to Nahanni Butte Dene Band, questions for
17 Environment Canada on their presentation?
18 MR. PETER REDVERS: Peter Redvers, the --
19 representing the Naha Dehe Dene Band. On -- I do have a
20 question, Mr. Chair. On, it would be page 22, I'm not
21 sure, we've got different page numbering, I think, on
22 that one, but it's page 22 on the original presentation,
23 Toxicity Recommendation D.
24 You indicate that:
25 "Predictions for mixing and receiving

1 environment concentrations should be
2 validated at the commencement, and
3 conditions monitored on an ongoing
4 basis to ensure chronic toxicity does
5 not extend beyond the 100 metre initial
6 dilution zone."
7 And I just wondered if you could speak to
8 that in relation to the -- the other type of objective or
9 objectives that are -- that have been discussed, which is
10 the reference condition approach and how that would
11 differ from the reference condition approach objectives
12 that have been discussed and will be discussed later on
13 today.
14 THE CHAIRPERSON: Thank you. I want to
15 go to Environment Canada.
16 MS. ANNE WILSON: Thank you, Mr.
17 Chairman, Anne Wilson here. Environment Canada looks at
18 toxicity on two (2) levels, the acute toxicity at end of
19 pipe is prohibited under the Fisheries Act. We
20 acknowledge that while it's not desirable, it's pretty
21 inevitable that there will be some chronic toxicity in a
22 mixing zone downstream of any effluent discharge.
23 The devil is in the details. So how long
24 of a discharge mixing zone is acceptable. If you set
25 your objectives to be reference condition at the edge of

1 the mixing zone, then you would expect no toxicity at
2 that point.
3 We would like to see the zone of chronic
4 toxicity absolutely minimized. In some of the other
5 assessment they had taken the approach that at the edge
6 of a generally accepted mixing zone the toxicity would be
7 no more than to 5 percent of the most sensitive species.
8 So without getting into too much detail,
9 there are a range of approaches to decide what is
10 acceptable for some chronic toxicity there. So if the
11 objectives are closer to CCME at the edge of the mixing
12 zone then we anticipate that you wouldn't see some lethal
13 tox -- or chronic toxicity, and you'd expect the same
14 thing from the RCA.
15 THE CHAIRPERSON: Thank you for your
16 questions. Any further questions, Mr. Redvers, Peter?
17 MR. PETER REDVERS: Yes, Peter Redvers.
18 How then, looking at that recommendation then, to what
19 extent does the objectives that are currently proposed by
20 Canadian Zinc meet that recommendation of Environment
21 Canada, and for which minerals would it not -- would not
22 meet that objective or that -- that approach that -- in
23 your recommendation.
24 MS. ANNE WILSON: It's Anne Wilson. In
25 the original slides I had noted that the objectives that

1 they have come up with would generally be expected not to
2 have chronic toxicity. There are always some wildcards.
3 It could be in the mixture of substances. Sometimes they
4 will act more than -- additively to have more toxicity.
5 Sometimes they'll act to counteract each others toxicity.
6 So the parameter by parameter evaluation would show that
7 you wouldn't expect to see any chronic toxicity for those
8 objectives, so.
9 THE CHAIRPERSON: Thank you. I'm going
10 to go to Peter Redvers. Any further questions?
11 MR. PETER REDVERS: Yes, Peter Redvers.
12 Just again, I'll maybe ask it -- to rephrase it just for
13 clarity then. What you're saying, or what Environment
14 Canada is saying, that the objectives, and these would be
15 the site specific water quality objectives that Canadian
16 Zinc have set, do meet the recommendation that you have
17 met for each individual parameter, recognizing that --
18 that the discussion of the mixing of parameters may still
19 need to take place?
20 THE CHAIRPERSON: Thank you. Environment
21 Canada...?
22 MS. ANNE WILSON: It's Anne Wilson.
23 That's correct. That's where the whole effluent toxicity
24 testing and -- can help us determine what the mixtures do
25 when they're together. And I acknowledge that there are

1 other factors that toxicity testing doesn't address, and
2 that is how changes to the various populations can occur
3 because of different species' sensitivity. So it's very
4 difficult to give a definitive answer. But from a
5 toxicity standpoint, the proposed objectives are not
6 unreasonable. If the reference condition approach was to
7 be pursued, that one would give a higher level of
8 protection.
9 THE CHAIRPERSON: Okay. Thank you. I'm
10 going to go back to Nahanni Butte Dene Band, Peter
11 Redvers.
12 MR. PETER REDVERS: Yes, Peter Redvers.
13 Well, thank you for that. I mean, certainly from a
14 community perspective there's been some difficulty in
15 sorting out the different opinions on -- on the types of
16 objectives that have been proposed, so we appreciate your
17 -- your -- your bluntness and directness in terms of your
18 assessment. Mahsi.
19 THE CHAIRPERSON: Thank you. I'm going
20 to go to Parks Canada. Any questions for Environment
21 Canada?
22 MS. KATHERINE CUMMING: Katherine
23 Cumming. No questions, Mr. Chair.
24 THE CHAIRPERSON: Thank you. I'm going
25 to go to the Dehcho First Nation, Joe Acorn.

1 MR. JOE ACORN: Yes, Joe Acorn. Looking
2 at the INAC report and the EC report, the -- the major
3 difference to me that I've seen was this toxicity-based
4 objective for water quality, whereas Environment Canada
5 seems open to the idea of having toxicity-based water
6 quality objectives, INAC is going more for the reference
7 case scenario.
8 So is that really the -- the -- the main
9 gist of the differences between the two (2) technical
10 reports and between the two (2) departments on site
11 specific water quality objectives, or are there other
12 differences that I haven't picked up, because some places
13 you seem to be saying the same things and in other places
14 you seem to be saying something a little bit different
15 than each other.
16 THE CHAIRPERSON: Thank you. I'm going
17 to go to Environment Canada.
18 MS. ANNE WILSON: Anne Wilson,
19 Environment Canada. Well, we are sitting firmly on the
20 fence with respect to the level of protection warranted
21 for the creek. We acknowledge that there are communities
22 that have an interest in this development. We
23 acknowledge that the Park is the custodian and caretaker
24 with a mandate to protect the Park's ecological
25 integrity. So I don't feel that Environment Canada can

1 make a strong statement beyond what our science-based
2 review will bring out, and that is pretty much related to
3 the toxicity aspects.
4 THE CHAIRPERSON: Okay. Thank you. I'm
5 going to go back to the Dehcho First Nation, Joe Acorn.
6 MR. JOE ACORN: All right, Joe Acorn.
7 Could you -- following on that, could you bring up your
8 Recommendation 1. Could you put that back on the screen?
9
10 (BRIEF PAUSE)
11
12 MR. JOE ACORN: All right, I -- I was
13 going to ask you for about -- Recommendation 1 was
14 written originally -- it wasn't really a recommendation,
15 it was simply a series of statements. In your written
16 report, what you have for the last line is:
17 "Environment Canada will defer to Parks
18 Canada, other stakeholders, and the
19 Board on making this determination."
20 So referring to site specific water
21 quality objectives. The last line in your presentation
22 now though is that EC recommends further discussions on
23 appropriate site specific water quality objectives.
24 So does the last line in your PowerPoint
25 presentation replace the last line in your written

1 technical report? Is this -- is the one in the technical
2 report no longer valid?
3 THE CHAIRPERSON: Thank you. Environment
4 Canada.
5 MS. ANNE WILSON: It's Anne Wilson. I
6 don't think the two (2) are mutually exclusive. I think
7 that obviously there are differing opinions and that
8 further discussion will be important to getting to some
9 consensus hopefully.
10 THE CHAIRPERSON: Okay. Thank you.
11 We'll go back to the Dehcho First Nation. Joe Acorn...?
12 MR. JOE ACORN: Joe Acorn. All right.
13 So earlier when DFO was up there I was expressing some
14 concern about DFO concluding what the final impacts would
15 be on fish and a -- aquatic life, given that we don't
16 know what the effluent quality will be yet, we don't know
17 -- because we don't know what the qual -- effluent
18 quality guidelines will be or what the water quality
19 objectives will be.
20 And when I pushed them a little farther,
21 what they said was that DFO was relying on Environment
22 Canada for this. And I look at this line here and it
23 says Environment Canada will defer to Parks Canada, and
24 when Parks Canada was up there, they said they're
25 supporting INAC. So if I follow that chain from DFO to

1 EC to Parks to INAC, it seems to me that the INAC
2 position is becoming, by default, the federal government
3 position.
4 Is that correct or incorrect?
5 THE CHAIRPERSON: Thank you. I want to
6 go to Environment Canada.
7 MS. ANNE WILSON: Thank you. I'm just
8 going to back up a little bit here for you. The bottom
9 line for Environment Canada is that the environment must
10 be protected, deleterious substances must not be released
11 into the receiving environment. So, if you want to think
12 of our recommendation as far as -- or our acceptance,
13 rather, of the proposed objectives as being the bottom
14 line, within that there's an envelope above that which is
15 bounded by the RCA on the top. So we're not going to go
16 outside of that envelope of protection, but I think it is
17 a value judgment and for more discussion as to where we
18 actually target the objectives.
19 THE CHAIRPERSON: Thank you. We'll go
20 back to Dehcho First Nation.
21 MR. JOE ACORN: I think that's good,
22 thanks.
23 THE CHAIRPERSON: Thank you. And we'll
24 move on to Natural Resources Canada. Any questions for
25 Environment Canada on their presentation?

1 MR. FONS SCHELLEKENS: Fons Schellekens,
2 Natural Resources Canada. No, Natural Resources Canada
3 doesn't have any questions for Environment Canada.
4 THE CHAIRPERSON: Okay, thank you. I
5 want to go on to Transport Canada. Any questions for
6 Environment Canada on their presentation?
7 MR. CHRIS AGUIRRE: Chris Aguirre,
8 Transport Canada. No, Mr. Chair, no questions here.
9 THE CHAIRPERSON: Okay, thank you. Any
10 questions from Liidlii Kue First Nation, from Jim
11 Antoine? Actually, he said, None. Okay, mahsi, Chief.
12 I'm going to go to Canadian Zinc
13 Corporation. Any questions for Environment Canada on
14 their presentation?
15 MR. PETER REDVERS: Point of order. Is
16 it possible to ask one (1) more question?
17 THE CHAIRPERSON: Yeah, I'll -- after we
18 can come right back from Canadian Zinc. Thank you. Go
19 on, Canadian Zinc.
20 MR. DAVID HARPLEY: Thank you. It's
21 David Harpley. We have, I think, four (4) or five (5)
22 questions. Before I ask the first one, I just wanted to
23 say on the water side, I wanted to congratulate Anne on a
24 very good and very balanced review. And I've heard a
25 rumour that she's thinking of retiring soon, and I guess

1 we all have to quit at some time, but I think it will be
2 a big loss to the north.
3 Moving on to water questions. Anne, you
4 mentioned or commented on the -- the load-balanced
5 approach for discharge and indicated that you thought it
6 was -- had some complexity or some issues with it, and I
7 -- I -- I did want to address a couple of those.
8 In your report, on page 11, you set out
9 the steps in controlling the or you're actually using the
10 load-based approach, and I said in my presentation, you
11 know, you encapsulated it quite well. But there was one
12 (1) element that was different from my kind of take on
13 how it would work. And you had indicated that they would
14 be sampling analysis of upstream water quality. And the
15 implication is that this would be done on a continuous
16 basis.
17 My kind of take on it is that upstream
18 water quality for discharge control would be basically
19 fixed at a specific number and that you would review the
20 number using monitoring data on a periodic basis.
21 So I'm -- I'm wondering if you feel that
22 that might reduce some of the complexity of the
23 arrangement?
24 THE CHAIRPERSON: Thank you. I want to
25 go to Environment Canada.

1 MS. ANNE WILSON: Thank you. Anne
2 Wilson. That certainly would reduce the complexity, but
3 we would need to hear how that number would be arrived
4 at, and it would have to be a number that would encompass
5 the highest concentrations expected from the upstream
6 contributions.
7 THE CHAIRPERSON: Thank you. To your
8 next question, Canadian Zinc.
9 MR. DAVID HARPLEY: Okay, moving on, but
10 a similar question. You noted that there was some issues
11 with monitoring creek flows in winter, specifically
12 related to ice thickness.
13 And I think we accept that that is an
14 issue, but I've had some discussion with our hydrologist
15 and he believes that there's a mechanism to address that.
16 And it involves, essentially, collecting winter data from
17 the ice by drilling holes and measuring ice thickness and
18 water depth below the ice. And that perhaps just might
19 be done on a -- on a weekly or biweekly basis.
20 Maybe not your field, but, again, is this
21 potentially a route to reducing some uncertainty and
22 discomfort with the approach?
23 THE CHAIRPERSON: Thank you. Now I'm
24 going to go to Environment Canada.
25 MS. ANNE WILSON: Anne Wilson. Yes, the

1 person who advised me on this did say that the only way
2 to do it would be through actually going out, drilling
3 the holes and measuring the flow as opposed to using
4 telemetry.
5 THE CHAIRPERSON: Okay, thank you. I
6 want to go to Canadian Zinc for your third question.
7 MR. DAVID HARPLEY: The third one on the
8 -- still on the -- the load discharge situation. I did
9 notice in your slides and in your report, there was
10 reference to testing out the approach, if you like, at a
11 time when there are high flows in the creek.
12 I don't see that comment actually
13 reflected in your recommendation, but be that as it may,
14 it -- it's a -- it's a reasonable idea, but I just
15 wondered if you would agree to modify it on the basis
16 that we might also test out the theory in the period when
17 we're actually filling the ponds so there would be no
18 discharge. So, in other words, it would be independent
19 of any dis -- specific discharge to the creek.
20 THE CHAIRPERSON: Thank you. Environment
21 Canada...?
22 MS. ANNE WILSON: Yeah, it's Anne Wilson.
23 If I understand correctly, you are proposing to calibrate
24 the process before you actually have to discharge. So
25 you would measure quality, flows and determine that if

1 you were going to discharge the -- what the volumes and
2 concentrations would be. That would be a good way to
3 start.
4 THE CHAIRPERSON: Okay, thank you. I'm
5 going to go back to Canadian Zinc.
6 MR. DAVID HARPLEY: Okay, that's good.
7 Moving along, I wanted to talk about the concentrates and
8 the dust issue. We've been consistent through the
9 process in indicating that our strategy for concentrate
10 movement is based on the practicalities of the operation,
11 and the constraints of the -- the winter season and the
12 volume of material, and also the need for environmental
13 protection.
14 Essentially, our approach has been to
15 contain the concentrates by putting them in bags. And,
16 also, the intent is to not have a situation where we have
17 dust on the outside of the bags and we not have the
18 tracking issue of dust being collected on trucks and
19 tracked out of the -- the bagging -- the loading
20 operation and off the site. So we have a combination of
21 measures to avoid dust in the bagging operation and to
22 keep the bags clean and basically ensure a clean
23 operation going up the road.
24 The main reason we can't go to a
25 containerized situation is we do have to offload and

1 reload on two (2) occasions for 50,000 tonnes -- up to
2 50,000 tonnes. That's that quantity that would go to the
3 midway station and then be picked up again. It doesn't
4 apply to the full amount of the annual movement because
5 after the whole road is open, the bags go all the way out
6 they don't actually sit down at the midway point. But
7 the -- the practicalities are we could not do that
8 offload and reload very easily with a containerized
9 situation, so it would pose difficulties for us.
10 But the main this is we really don't
11 consider it to be necessary. The measures that we've put
12 in place would avoid the dust issue, and we would still
13 want to do things -- like, we have no problems with the
14 monitoring side of things. We have no problems with the
15 dustfall monitoring, with the soil monitoring, and so on,
16 to verify the approach. And -- and if we detected that
17 there was an issue, then there would be a need for
18 consideration for adaptive change.
19 So, I -- I also need to talk about the --
20 the examples that were given in terms of why
21 containerization needs to be adopted. The examples that
22 were given were Red Dog and Pine Point. What the
23 presentation neglected to indicate is that the
24 contamination issues associated with those operations
25 were largely historical when the concentrates were

1 transported in a bulk format with no covering of
2 vehicles. So, it's not surprising there were dispersal
3 issues and dust issues. And, so, in other words, the
4 examples are not relevant to what we're proposing.
5 And I also note that our operation is
6 similar to what has been undertaken, and is being
7 undertaken, at operations like Eskay Creek in BC and the
8 Minto operation in the Yukon. They also use a
9 concentrate bagging approach.
10 So, I guess the question is: Will
11 Environment Canada/GNWT agree that those examples that
12 they used are not directly relevant to what we're
13 proposing, and that there are more relevant ones that
14 actually do use bags?
15 THE CHAIRPERSON: Okay, thank you. I
16 believe that's your final question, that's your final
17 word? No? Okay. I'll go back to Environment Canada.
18 MS. AILEEN STEVENS: Aileen Stevens,
19 GNWT. You mentioned a number of items there. We may
20 have to go back and forth a little bit if I miss a few of
21 them, but what we recommended is secondary containment,
22 not containerization the way that the Red Dog Mine is
23 operating because, as you did describe throughout this
24 process, that wouldn't be practical.
25 However, we have asked a number of times

1 throughout this process about secondary containment and
2 you've stated it's not practical, but you haven't
3 indicated why or provided any kind of economic assessment
4 of that.
5 Essentially, even the original photo that
6 you provided in our first IR to demonstrate what the
7 bagging process would look like, it was these Hefty bags
8 loaded into a railcar with a lid on it. So, these bags
9 are not airtight. They're a tarp-like textile that's
10 tied closed with a string. I have worked with these in a
11 number of situations and I've seen them fail.
12 I saw them fail coming off of cargo ships,
13 spilling in the hull -- into -- back into the ship --
14 pardon me. I've seen them up on the tundra fail when
15 they freeze together when they're exposed to the
16 elements. And they're picked up and they fail. I've
17 seen inspection reports from a caddy where the cement
18 bags have frozen to the ground and also with UV exposure,
19 they've torn.
20 Now, I know you intend to store these
21 indoors, but during transport, they're not going to be
22 covered. They're going to be strapped down with what
23 appears to be a single strap. I've seen rope come untied
24 when people are driving with their canoe tied to the top
25 of their roo -- to their car. I mean, who's to say that

1 the string tying these bags closed may not also come
2 undone in a breeze.
3 If the -- if the truck were driving and
4 exposed to precipitation, are these bags going to freeze
5 together and, therefore, when they're lifted, will they
6 tear and fail? If it were containerized -- sorry, not
7 containerized -- if there was secondary containment
8 similar to the original photo that you provided of that
9 railcar, are -- is there not a way for flatbed trucks to
10 have walls installed around them and -- and a -- a tarp
11 roof on it? Or instead of a fork -- pardon me -- the
12 forklifts you use to remove them from the flatbed, could
13 they not be extended to pull them from overhead?
14 I mean, I'm -- I'm proposing a number of
15 situations here because you haven't throughout this
16 process. This will be the third time we've proposed
17 secondary containment, and we just haven't ever gotten
18 around to this discussion, I guess. Unfortunately, it's
19 at this point. But this is lead and zinc concentrate
20 being transported through a national park, so if there is
21 risk for contamination, as shown in other mines, then it
22 should be prevented.
23 THE CHAIRPERSON: Okay, thank you. I
24 want to go to Canadian Zinc.
25 MR. DAVID HARPLEY: Yes, David Harpley.

1 It seems in your response that you're largely talking
2 about spills, not dust. And most certainly there will be
3 occasions where a bag might roll off a flatbed or there
4 may be a turnover, there may be a situation where there's
5 a tear in a bag. It could well be that a fork goes into
6 a bag instead of underneath. But these are spill
7 situations requiring a spill response, and we fully
8 expect that that would be undertaken and then there would
9 be complete cleanup of that sort of situation.
10 But we don't see the dust side of this
11 equation. And bear in mind that when the concentrates
12 come out of the mill, they come out with a moisture
13 content of approximately 8 percent. And they go into the
14 bag, the bag is sealed, and then they go into an unheated
15 storage situation.
16 So come wintertime, you'll basically have
17 a frozen square lump, and although the sack, in normal
18 times outside of winter, is a --a porous material, in
19 wintertime it's going to be frozen and so we don't see
20 the dust side of this equation.
21 THE CHAIRPERSON: Okay, thank you. I'm
22 going to go to Environment Canada.
23 MS. AILEEN STEVENS: Aileen Stevens,
24 GNWT. Yeah, the dust was something I obviously didn't
25 get to in the last ramble.

1 When you talked about dust mitigation
2 measures in the loading facility, the one (1) example
3 that you've given is that air lances will be used. And I
4 inquired at one (1) of the tech sessions if that meant
5 sucking up the dust or blowing it off the bags and you
6 indicated it was blowing it off the bags.
7 So when the bags are loaded up, if there's
8 dust on them you're going to blow it off to, what, the
9 floor of the warehouse, I guess, and then that is going
10 to be -- how -- that's going to be captured how?
11 Some of the examples I gave of the Red Dog
12 Mine, granted, yes, they did have a different situation
13 than what you're proposing originally that lead to
14 contamination, but the mitigation measures they employed
15 included negative air pressure in their loading bay and
16 bag house filtration on the exhaust sacks and truck wash
17 bays and that type of thing to prevent dust -- dust
18 movement and -- and dust accumulation on the trucks and
19 then tracking around site and then, of course, from site,
20 getting tracked down the road and so on and so forth.
21 So as -- from what I can tell, it's still
22 a possibility and from -- from the air dispersion
23 modelling, it did indicate that there would be
24 particulate matter in the ambient air and some lead and
25 zinc deposition, granted, below criteria, however, it

1 still would be spread around in the dust. So there is
2 potential for tracking.
3 THE CHAIRPERSON: Thank you. I'm going
4 to go to Canadian Zinc. Maybe you could clarify, like,
5 on the amount of questions you got left, as well. Alan
6 Taylor...?
7 MR. ALAN TAYLOR: It's Alan Taylor here.
8 Regarding the mill and the bagging plant, it would be
9 under negative pressure. There is a dust filtration
10 system installed in the mill at this time.
11 MR. DAVID HARPLEY: It's Dave Harpley.
12 You also wanted one (1) clarification on -- from the end
13 there. You talked about ambient dust.
14 Yes, there would be ambient dust
15 associated with the operation, but that's not specific to
16 the concentrate bagging operation in -- in terms of the
17 actual bags going out.
18 THE CHAIRPERSON: Okay, so do you have
19 any more questions? Okay, please proceed.
20 MR. DAVID HARPLEY: It's David Harpley.
21 The -- the report has Recommendation 25. It talks to
22 developing monitoring plans for each species and our
23 consultant has a few brief comments on that.
24 MR. CHRIS SCHMIDT: Mr. Chairman, it's
25 Chris Schmidt. We -- we note the recommendation and we'd

1 also like to note that a number of the species that are
2 listed federally or provincially would not occur along
3 the haul road during the -- the winter period -- nota --
4 notably the bird species. So we question the need for
5 developing a monitoring program for those.
6 For the other species that are known to
7 occur along the winter road in the wintertime, such as
8 wolverine, bison and caribou, there are monitoring
9 measures that will be put forward in the Wildlife
10 Management Plan and have been partially addressed in that
11 plan and will be in subsequent versions of the plan.
12 And just the last one, Recommendation 26
13 talks to vegetation clearing because of the possibility
14 of migratory birds in -- in the breeding season. The
15 suggestion is that the existing and proposed sections of
16 the access road vegetation clearings should be conducted
17 either before May 7, or after August 19. I wanted to
18 point out that the existing road is already permitted.
19 So I -- I don't see how we can apply retroactively a
20 recommendation to a permitted situation.
21 And then Recommendation 27 is also talking
22 about vegetation clearing for migratory birds in
23 reference to the waste rock storage area. This area is
24 an area that is extensively utilized during the summer
25 period for the existing operation for care and

1 maintenance and also exploration. It's crisscrossed by
2 access roads. It's a fairly steep area. It has soil --
3 rock exposure over a large part of it.
4 In other words, I find it very hard to
5 expect that we're going to have migratory birds in this
6 particular location, so I think the recommendation is
7 unnecessary.
8 THE CHAIRPERSON: Okay. Thank you. So -
9 - just so I'm clear, that's your two (2) questions that
10 you put forward. I'm going to put it back to Environment
11 Canada in response.
12
13 (BRIEF PAUSE)
14
15 MS. JANE FITZGERALD: Jane Fitzgerald,
16 Environment Canada. To respond to the comment regarding
17 our Recommendation 25, in the last paragraph of our
18 conclusions, as I'm not the wildlife expert I will
19 actually just read this out to maintain their wording:
20 "Environment Canada's concerns and
21 conclusions regarding common nighthawk,
22 olive-sided flycatcher, and horned
23 grebe are addressed in the next
24 section, impacts on migratory birds
25 from vegetation clearing and

1 maintenance along mine access road and
2 vegetation clearing for the waste rock
3 storage area."
4 So I believe these would be the migratory
5 species that you were referring to in relation to
6 Recommendation 25. So as such, there -- the
7 recommendations related to them are in the -- the section
8 -- the recommendations related to vegetation clearing.
9 As per your comments on Recommendations 26
10 and 27, our recommendations are not on -- on the clearing
11 of vegetation, are related to the fact that it's
12 prohibited to destroy the nests of migratory birds
13 regardless of what lands or what permits are associated
14 with -- with that nest.
15 So the objective here is just to avoid
16 destroying their nests. It's not tied to what is there -
17 - what is there now or what the specific activity is.
18 It's just according to the regulations that's prohibited,
19 so we just want to protect that.
20 THE CHAIRPERSON: Okay. Thank you. Do
21 you want to follow up, one (1) followup? Okay. Thank
22 you.
23 MR. DAVID HARPLEY: Sorry. It's David
24 Harpley. If that's the intent of the recommendation, I
25 think we can deal with that in terms of checking to see

1 if there is nests, but I did not want to commit the
2 company to avoiding vegetation clearance over that period
3 just in case there might be a nest, that's the point.
4 THE CHAIRPERSON: Okay. Thank you. So
5 is -- do you want to respond to that?
6
7 (BRIEF PAUSE)
8
9 MS. JANE FITZGERALD: Jane Fitzgerald,
10 Environment Canada. Yes, I -- I have a response. I just
11 want to draw -- again, refer back to our technical report
12 written by our wildlife experts in our section,
13 proponent's conclusion on page 32 of the report 2, in the
14 -- the first full paragraph on that page. I will just
15 read it out:
16 "During the technical meetings on
17 October 7th, 2010, EC requested that
18 Canadian Zinc clarify whether any
19 vegetation would be cleared during the
20 spring or summer. Canadian Zinc stated
21 that any vegetation clearing would have
22 to occur outside of the breeding --
23 migratory bird breeding season, unless
24 the vegetation -- excuse me -- unless
25 vegetation clearing would have to occur

1 during the winter."
2 So I -- for further followup I would like
3 to follow up with our wildlife experts, but there does
4 seem to be some past evidence that this clearing would
5 have been -- has been confirmed in the past to take place
6 outside of the migratory bird breeding season.
7
8 (BRIEF PAUSE)
9
10 THE CHAIRPERSON: Okay. Thank you for
11 your comments, and I want to thank Canadian Zinc for your
12 comments, as well. I want to go to Dehcho First Nation -
13 - or Nahanni Butte Dene Band. Peter Redvers had one (1)
14 question.
15 MR. PETER REDVERS: Peter Redvers, Naha
16 Dehe Dene Band. Just a supplementary to follow up to the
17 question relating to original slide 22 on the toxicity
18 and the discussion that we had on the -- the ability of
19 the objectives to meet chronic toxicity requirements to
20 not extending beyond the 100 metre initial dilution zone.
21 Has there been any calculation of how that
22 translates in terms of meeting RCA conditions at the Park
23 boundary?
24 Has there been any discussion or any
25 review of whether meeting the objective that you've

1 suggested or are recommending would result in RCA
2 objectives being met by the -- at the Park boundary, 7
3 kilometres downstream?
4 THE CHAIRPERSON: Thank you, Mr. Redvers,
5 for your final question. I'm going to go to Environment
6 Canada.
7 MS. ANNE WILSON: Thank you. It's Anne
8 Wilson, Environment Canada. That's a very good question.
9 With the most recent load-based approach, we would
10 anticipate the concentrations of the various parameters
11 in the effluent would be maintained at low enough levels
12 to meet the objectives. The volumes would stay the same.
13
14 And so I was trying to get a sense of
15 where we would expect to see the full mixing of the
16 effluent in the stream. The previous work suggested that
17 it would be vertically mixed within something like 2 to
18 31 metres down from the discharge.
19 Transverse mixing or horizontal mixing
20 would take a lot longer. In fact, the modelling they did
21 showed that you'd still see something like 2 percent at 2
22 kilometres. So I was trying to pin down for reasons of
23 the metal mining effluent regulations where the 1 percent
24 boundary would be.
25 And until we know what the mine flows are

1 like and the volumes discharged, it didn't seem like I
2 was going to get a firm number on that. There is a range
3 of numbers given in the modelling evaluations and they
4 ranged from reasonable to extremely high for the extreme
5 situation.
6 So that was a question that I was trying
7 to wrestle with, but didn't come to a firm answer, or an
8 answer really.
9 THE CHAIRPERSON: Thank you. Does that
10 answer your final question, Mr. Redvers?
11 MR. PETER REDVERS: Peter Redvers, Naha
12 Dehe Dene Band. Yes, for the moment, and it might be
13 something that can be discussed in -- following the next
14 presentation.
15 THE CHAIRPERSON: Okay. Thank you. I'm
16 going to move on to the Review Board legal counsel. Any
17 questions for Environment Canada? Thank you.
18 MR. JOHN DONIHEE: John Donihee, I have
19 no questions.
20 THE CHAIRPERSON: Thank you. To the
21 Review Board staff in the back, any questions for
22 Environment Canada?
23 MR. CHUCK HUBERT: No further questions,
24 Mr. Chair.
25 THE CHAIRPERSON: Okay. Thank you. I

1 think I'll go to my Board members to the far left. Mr.
2 Darryl Bohnet.
3 MR. DARRYL BOHNET: Thank you very much,
4 Mr. Chair. Water quality was a key line of inquiry and
5 we asked the proponent to work on that. And, Anne, I
6 know that you have specialized in this area, so we very
7 much value your opinion.
8 We hear this RCA acronym used quite a bit.
9 Reference -- reference condition approach, I think it
10 means. We've seen Canadian Zinc make reference to it
11 with plus 2CD -- SD. We hear CCME thrown around quite a
12 bit. I get the impression that this RCA business is
13 relatively new and I'm curious as to whether or not this
14 has been applied to mines in the past, in particular the
15 mine up the Flat River. How did they -- they handle the
16 effluent there?
17 And you know the gold mines, Colomac and
18 Giant and Con, did they use this kind of a number or how
19 did they arrive at determining effluent or site-specific
20 qual -- water quality objectives because I need some --
21 some help in this area?
22 THE CHAIRPERSON: Okay. Thank you, Mr.
23 Bohnet. I'm going to go to Environment Canada.
24 MS. ANNE WILSON: Yeah, it's Anne Wilson.
25 Thank you. The reference condition approach has been

1 around for a long time. It hasn't been widely used in
2 the north and part of the problem there is we don't have
3 a lot of data for baseline reference areas.
4 The Flat River mine, Cantung Mine, is
5 pretty much a historic mine and their approach is a
6 gradient type of study for looking at effects in the
7 river, so it's quite different. And they were never
8 required to set objectives back in the day when they
9 started off.
10 Other mines tend to be negotiated to some
11 degree as to what the acceptable distance of the mixing
12 zone is and then at the edge of that mixing zone what the
13 parameters of concern need to be. And generally it's to
14 substantially prevent any effects on the most sensitive
15 species. So does that answer the question?
16 THE CHAIRPERSON: Thank you. Mr. Darryl
17 Bohnet...?
18 MR. DARRYL BOHNET: Yes, thank you. The
19 second point is, is that this is the Land and Water Board
20 business of determining that in detail, right? I'm
21 curious as to -- to the discussion related to the site-
22 specific water quality objectives here when there's
23 another board that deals specifically with -- with this
24 matter.
25 So -- so can you talk a little bit about

1 the placement of -- of the argument on this issue?
2 THE CHAIRPERSON: Thank you. Environment
3 Canada...?
4 MS. ANNE WILSON: Anne Wilson. I believe
5 the environmental assessment process is where we need to
6 pick the objectives here. This is where the stakeholders
7 determine what is an acceptable level of effect and that
8 will then give the regulatory process its marching orders
9 for setting the effluent quality criteria.
10 THE CHAIRPERSON: Thank you. Darryl
11 Bohnet...?
12 MR. DARRYL BOHNET: Thank you. The
13 monkey is still on our back. Thank you.
14 THE CHAIRPERSON: Okay. I'm going to go
15 to Board member James Wah-Shee. Any questions for
16 Environment Canada?
17 MR. JAMES WAH-SHEE: Perhaps rather than
18 asking a question, I -- I just wanted to perhaps give a
19 comment. It -- it would appear that -- that activities
20 related to this particular mining project, it would seem
21 that there are so many players involved and the federal
22 government, not only the federal government but the
23 Government of the NWT, as well.
24 Given all this individual departmental
25 involvement in terms of role and function, I'm a little

1 curious in regards to how the federal government and the
2 various departments coordinate their activities among
3 themselves because it would appear that there could be
4 duplication between the various federal departments.
5 And so my question is -- is -- I suppose
6 is: I'm just a little curious in regards to how the
7 various federal departments coordinate their activities
8 given the number of players involved.
9 Do you have a -- on the federal level, do
10 you have an interdepartmental working committee? And
11 also, when the federal government coordinates their
12 activity with the Government of Northwest Territories, is
13 this -- do you have an intergovernmental working
14 committee, as well?
15 It's just that I'm rather curious with the
16 various presentations that has been given in the last
17 couple of days. So it would appear that some type of co-
18 ordination is required and called for. Thank you.
19 THE CHAIRPERSON: Thank you. It was a
20 comment but I'll just put it over to Canadian Zinc --
21 sorry, Environment Canada.
22 MS. ANNE WILSON: Anne Wilson,
23 Environment Canada. We do have a working group for
24 pretty much each project that is in environmental
25 assessment and we actually do talk to each other. We

1 don't want to have surprises between the departments.
2 That said, we all have differing mandates. We all -- all
3 have differing responsibilities. And so there are times
4 when we have to agree to disagree and provide our
5 rationale to the Board for their consideration.
6 And we do talk to the territorial
7 government. As you can see, we work closely with them
8 between our air expert and theirs and work on -- on all
9 the files together.
10 THE CHAIRPERSON: Okay. Any further
11 comments or questions, Mr. James Wah-Shee?
12 MR. JAMES WAH-SHEE: Thank you for your
13 comments. Mr. Chair, I don't have any further comments.
14 Thank you.
15 THE CHAIRPERSON: Thank you. Mr. Percy
16 Hardisty, Board member...?
17 MR. PERCY HARDISTY: No, I don't have any
18 questions, Mr. Chair.
19 THE CHAIRPERSON: Thank you. Board
20 member Rachel Chapeau...?
21 MS. RACHEL CHAPEAU: No, no questions at
22 this time, Mr. Chair.
23 THE CHAIRPERSON: Thank you. I'm going
24 to go to Richard Mercredi, Board member.
25 MR. RICHARD MERCREDI: Thank you, Mr.

1 Chair. No questions at this time.
2 THE CHAIRPERSON: Thank you. I'm going
3 to go to Board member Danny Bayha.
4 MR. DANNY BAYHA: Thank you. I just had
5 a question, Mr. Chair.
6 Earlier we were given some thoughts on how
7 to try to get this project going but I still remember
8 what I was told, just to do it right. I guess my concern
9 -- you know, earlier I mentioned to the federal
10 departments that we depend on them to give us their
11 opinion on proposed projects such as this. We, in turn,
12 have to turn around and assure the public that's going to
13 be the case for the next twenty (20) years or fifty (50)
14 years or whatever that's going to be.
15 But I guess I'm sort of curious. As we
16 walk out and down the street and -- and someone comes up
17 to yourself, Ms. Wilson, and asks you, Is my water and
18 the air protected and can my children be allowed to fish
19 in that area? what would you say to them? Thank you.
20 THE CHAIRPERSON: Thank you, Mr. Bayha.
21 I'm going to go to Environment Canada.
22 MS. ANNE WILSON: It's Anne Wilson.
23 Well, Environment Canada would look at the aspects of
24 maintaining the water quality and leave any consumption
25 or drinking water aspects to the health folks. But that

is a question we get a lot and I would have to say that in this case we would want to ensure that the project was done with the proper mitigation measures in place; that it was sufficiently capitalized to be able to con -- to do everything properly -- and this is absolutely none of our business, I'll go on the record as saying that, that that is an issue we, as the residents of the NWT, have seen in the past with other operations -- and that there is a strong monitoring program that involves those who have an interest in it.

So that would mean the stakeholder's committee would have input into the results from the monitoring and into the -- the so what question. We all get lots of data from monitoring programs. It's figuring out what it means on a case-by-case basis. So there's my two (2) cents worth.

THE CHAIRPERSON: Thank you. Board member, Danny Bayha...?

MR. DANNY BAYHA: Thank you.

THE CHAIRPERSON: Okay, thank you. I'm going to go to Peter Bannon, Board member.

MR. PETER BANNON: Thank you, Mr. Chair. There have been a number of references to the CCME. We have the federal member. We also have the territorial member of that group. I was wondering if you could --

1 perhaps the federal one because you're part of the
2 intervention, if you could do -- take -- have an
3 undertaking to provide the -- the Board for the public
4 record information from the CCME describing how water
5 quality objectives were formulated, and for this -- just
6 for the production of aquatic life, and how they're
7 intended to be used because I'm hearing different things
8 that is confusing me.
9 And that would include also this non-
10 degradation policy that DIAND referred to.
11 THE CHAIRPERSON: Okay. Thank you,
12 Peter. Just a clarification, you mentioned an
13 undertaking?
14 MR. PETER BANNON: Peter Bannon. I'm
15 requesting it as an undertaking.
16 THE CHAIRPERSON: Okay. Thank you. I'm
17 going to go to Environment Canada.
18 MS. ANNE WILSON: Here, Anne Wilson,
19 Environment Canada. I can absolutely provide you with
20 the 2003 CCME document on site specific derivation, and
21 that has some really good explanations on how you would
22 arrive at your objectives and what you would weigh in the
23 decision making process.
24 So I can provide a link to that on the
25 CCME website, and I'll do so by email as soon as I get

1 computer access.
2 THE CHAIRPERSON: Okay, so if you agree
3 to this, so then, I guess, can I suggest that we go with
4 the date that we've been proposing, July 8th, 4:00 p.m.,
5 to have that in?
6 MS. ANNE WILSON: Anne Wilson. That will
7 be fine.
8
9 --- UNDERTAKING NO. 5: Environment Canada to provide
10 the 2003 CCME document on
11 site specific derivation by
12 July 8, 2011, 4:00 p.m.
13
14 THE CHAIRPERSON: I'll go back to Mr.
15 Peter Bannon, Board member.
16 MR. PETER BANNON: I'd like to -- for
17 that to include the non-degradation policy. Thank you.
18 THE CHAIRPERSON: I'll go back to
19 Environment Canada to that question.
20 MS. ANNE WILSON: Anne Wilson. That is
21 discussed in the document.
22 THE CHAIRPERSON: Very good. Then any
23 further questions, Mr. Bannon?
24 MR. PETER BANNON: I -- we have the two
25 (2) jurisdictions up here, and we often get this

1 presentation on incineration. Who -- we have them both
2 at the mic now. Who has the jurisdiction for air
3 emissions, the legislative jurisdiction for air
4 emissions?
5 THE CHAIRPERSON: Thank you. Environment
6 Canada...?
7 MS. ANNE WILSON: It's Anne Wilson. We
8 don't have a regulatory body that has responsibility for
9 permitting, monitoring, and enforcement. We have the
10 Canada-wide standards that have been developed and that
11 are applied as best practices that we want to see adhered
12 to.
13 So with respect to air, it does fall into
14 a regulatory gap, and that's why we find it very
15 important to have it on the table at the environmental
16 assessment stage so that it can be done right because
17 later on in the permitting stage it doesn't fit into the
18 water and land use permits as well as we might like.
19 THE CHAIRPERSON: Thank you. I'm going
20 to go back to Mr. Bannon.
21 MR. PETER BANNON: I guess my question
22 was a little bit more specific, not so much what you do
23 now but who has the legislative authority to pass a law
24 for air emissions?
25 THE CHAIRPERSON: Thank you. I'm going

1 to go to Environment Canada.
2 MS. ANNE WILSON: It's Anne Wilson. I
3 think I'm going to have to bring an answer back on the
4 federal level because certainly regulations could be made
5 if there was a political will, but it has not been on the
6 table that I know of to put air legislation for the north
7 in effect.
8 In the south it's different because the
9 province is regulated. So I'll let Aileen supplement my
10 answer here.
11 MS. AILEEN STEVENS: Aileen Stevens,
12 GNWT. My understanding is the GNWT has the Environmental
13 Protection Act which applies to all of the NWT with the
14 exception of activities that are already authorized by
15 other regulators, such as the federal government.
16 So we typically do not regulate activities
17 that are authorized by federal permits or licences.
18 Therefore, air quality can be regulated by the GNWT on
19 commissioner's land, which is basically the community's,
20 which is about 5 percent of the NWT. That's my
21 understanding.
22 THE CHAIRPERSON: Okay. Thank you. I'm
23 going to back to Board member Peter Bannon.
24 MR. PETER BANNON: Thank you. Peter
25 Bannon. I don't expect you to get back on me, maybe just

1 consider -- get your heads together. This continually
2 comes up. It's very hard to be implemented through land
3 use permits and water licences as a mitigative measure
4 because DIAND says it's out of the Board's jurisdiction,
5 and maybe if it is really that important that somebody
6 should regulate it.
7 But I do have another question, if I may?
8 THE CHAIRPERSON: Please proceed.
9 MR. PETER BANNON: And it's just a
10 followup on a question Darryl Bohnet asked earlier about
11 the role of the Land and Water Board and the role of the
12 Review Board.
13 And I think the Review Board does have a
14 role in setting water quality objectives when there's
15 been a -- a significant environmental impact identified.
16 Likelihood of it occurring it becomes imperative to do it
17 then.
18 But that's not what is being proposed in
19 your intervention. I think you're proposing that the
20 process be put on hold so that an agreement between
21 government and the proponent can be negotiated to arrive
22 at this. You're not asking us to establish them; is that
23 correct?
24 THE CHAIRPERSON: Thank you, Peter
25 Bannon. I'm going to Environment Canada.

1 MS. ANNE WILSON: It's Anne Wilson.
2 Environment Canada did not propose to put the process on
3 hold while objectives were established, but if a
4 committee were struck or a group convened to do so we
5 would participate in that.
6 THE CHAIRPERSON: Thank you. I'm going
7 to go back to Mr. Peter Bannon, Board member.
8 MR. PETER BANNON: Thank you for that
9 clarification. I don't have anymore questions.
10 THE CHAIRPERSON: Okay. Thank you.
11 Okay, well, we'll take a ten (10) minute break. But
12 before we take a ten (10) minute break I just want to
13 also send our best wishes to Environment Canada on --
14 Anne Wilson here. It's our understanding that you're
15 retiring so we want to wish you all the best and wherever
16 you go. And we appreciate you being here today, as well,
17 and making a presentation here. Mahsi.
18 If you want to make a comment.
19 MS. ANNE WILSON: It's Anne Wilson.
20 Thank you very much. I do wish I was retiring. I am
21 actually moving to a different Environment Canada office
22 in the Edmonton, doing similar things with water quality,
23 so I may come back in the environmental effects
24 monitoring role some day in the future.
25 But thank you for your good wishes. It

1 has been very rewarding to work with the Boards.
2 THE CHAIRPERSON: Okay. Mahsi. With
3 that we'll take a ten (10) minute break and then we'll
4 get INAC to come up to set up.
5
6 --- Upon recessing at 4:50 p.m.
7 --- Upon resuming at 5:05 p.m.
8
9 THE CHAIRPERSON: Okay. We're just
10 waiting for the rest of the guys to come in then we'll
11 start. We've got some food coming through here at 5:30,
12 so maybe once you're done your presentation we'll
13 continue with the presentation and maybe people can just
14 grab their food and eat, and we could just continue on
15 with questions as well, because we've got limited time
16 left.
17 So with that I guess -- I guess I'll ask
18 everybody to come in and sit down. We're going to start.
19 I'm going to turn it over to INAC. This is the final
20 presentation. Then we'll go into closing comments and
21 then we'll wrap up.
22 And I ask that maybe when we do our
23 questions too, as well, we do questions and I'm not going
24 to get into rebuttals or debates or anything like that.
25 I just want to just put forward questions so that we have

1 it on the registry, and again, and just prioritize your
2 questions, as well.
3 With that I'm going to turn it over to
4 Indian and Northern Affairs. If you can do your
5 introduction that would be great. Thank you.
6
7 PRESENTATION BY INAC:
8 MS. TERESA JOUDRIE: Thank you. Good
9 afternoon, Mr. Chair, Board members, ladies and
10 gentlemen. My name is Teresa Joudrie, and I'm the
11 director of renewable resources and environment with what
12 is now called Aboriginal Affairs and Northern Development
13 Canada.
14 Today with me on the panel I have Mr.
15 Robert Jenkins, who is the manager of the Water Resources
16 Division; Mr. Nathan Richea, who is also of the Water
17 Resources Division; as well as John Brodie from Brodie
18 Consulting Limited; and Barry Zajdlik of Zajdlik and
19 Associates.
20 Mr. Chair, I appreciate the opportunity to
21 present today our bo -- to present to the Board today our
22 technical report on the Prairie Creek Mine development
23 project as currently proposed by the Can Zinc
24 Corporation.
25 We've provided a handout as well as a

1 glossary of terms and acronyms that we'll -- we'll be
2 using throughout our presentation for the Board and other
3 interested parties. They're located at the back of the
4 room.
5 As the Department of Aboriginal Affairs
6 and Northern Development, our goal is to support
7 sustainable, responsible development in the Northwest
8 Territories that respects the values and interests of the
9 communities and its residents, and that these activities
10 are carried out in an environmentally sound manner.
11 The Department has completed a technical
12 review of information that has been provided by the
13 proponent. This includes the DAR and its addendum
14 submitted in the spring of May 2010, as well as responses
15 to our -- to Information Requests from September 2010, as
16 well as March 2011. We've also reviewed other
17 information that's been presented as part of technical
18 sessions or provided through numerous meetings with the
19 developer.
20 From our review of this information we
21 still have three (3) main outstanding issues. These
22 include water quality, water management and storage,
23 tailings management and storage.
24 Mr. Chair, we'll describe for the Board
25 how these three (3) issues are intertwined with respect

1 to the potential for significant impacts to the aquatic
2 environment. We'll also discuss Aboriginal Affair and
3 Northern Development Canada's concerns with respect to
4 post closure of the mine as well as proposed acce -- the
5 proposed access road to the mine.
6 As I'm sure you're aware, the Department
7 has legislative responsibilities for land and water
8 management within the NWT. One (1) of these
9 responsibilities is to provide technical advice to
10 resource management boards, such as yourselves, to assist
11 in the decision-making process.
12 The recommendations within our technical
13 report are made with the intention of assisting the Board
14 in its decision-making process. If, in our view, there
15 is insufficient information available for the Review
16 Board to make a determination of significance, we have
17 attempted to clarify for the Board where the developer's
18 information is deficient and present a possible path
19 forward to resolve any of these outstanding issues and it
20 is within this context that we make our presentation.
21 At this point, I'm going to hand the
22 presentation over to Robert Jenkins, manager of the Water
23 Resources Division.
24 MR. ROBERT JENKINS: Thank you, Mr.
25 Chair. It's Robert Jenkins with Aboriginal Affairs. The

first area we'll discuss today is water quality. Specifically, there are three (3) areas of concern, and those are water quality objectives or site-specific water quality objectives, and then the related effluent quality criteria, otherwise known as just plain effluent quality.

The second area of concern is effluent discharge, specifically the proposed exfiltration trench and the mixing analysis.

And the last is the proposed Aquatic Effects Monitoring Program, otherwise knows as AEMP, and corresponding adaptive management.

The first topic I will discuss is the establishment and implementation of site-specific water quality objectives which I'll refer to as SSWQOs.

Canadian Zinc will have to discharge effluent during its operation of the Prairie Creek mine. This effluent will be a blend of mine water and processed water. The only water course which is feasible for receiving discharge from the mine is Prairie Creek. Prairie Creek is a tributary of the South Nahanni River, and the proposed development will discharge effluent approximately 7 kilometres upstream of the Nahanni National Park Reserve, which is also a UNESCO World Heritage site. After this, it flows into the Nahanni

1 River, classified as a Canadian Heritage River.
2 Prairie Creek is ultro --
3 ultraoligotrophic, or, in other words, it's a water
4 course having low productivity. It provides
5 overwintering and migratory habitat for several fish
6 species, including bull trout, which are listed as may be
7 at risk by the GNWT in 2011.
8 Aboriginal Affairs also understands
9 there's a traditional fishery for arctic grayling near
10 the mouth of Prairie Creek. Accordingly, the developer
11 has agreed that site-specific water quality objectives
12 for Prairie Creek are required and necessary.
13 What is a site-specific water quality
14 objective? It is the standard for water quality to be
15 met at a defined location downstream of a development.
16 This defined location is termed an assessment boundary.
17 Beyond this assessment boundary, site-specific water
18 quality objectives must be met.
19 End-of-pipe or point of discharge limits
20 or effluent quality criteria are dictated by the
21 downstream water quality objective and consider a mixing
22 zone, which is also called in some terms an initial
23 dilution zone.
24 It is important to note that little
25 dilution is available between the end of the proposed

1 mixing zone and the boundary of the Nahanni National Park
2 Reserve. As such, any site-specific water quality
3 objectives established for the edge of the mixing zone
4 will effectively apply to Prairie Creek within the
5 Nahanni National Park Reserve, as well.
6 Mr. Chair, during this EA both the
7 developer and Aboriginal Affairs have agreed on the need
8 to establish protective site-specific water quality
9 objectives for Prairie Creek in regards to discharges
10 during mine operations. However, Mr. Chair, there's been
11 a difference in opinion in regards to the approach to
12 developing site-specific water quality objectives and the
13 level of protection afforded to Prairie Creek.
14 At this point, I would like to pass the
15 presentation over to Mr. Barry Zajdlik to describe in
16 detail the different methodologies for deriving site-
17 specific water quality objectives.
18 He will also speak to the approach taken
19 by the proponent in establishing its proposed site-
20 specific water quality objectives and the raised concerns
21 that we have in our technical report.
22 MR. BARRY ZAJDLIK: Thank you, Robert.
23 Mr. Chairman and Board members, I'm going
24 to talk about site-specific water quality objectives.
25 I'm going to define what they are. It's somewhat

1 distressing that -- that those definitions haven't been
2 provided earlier.
3 I've worked in the derivation of water
4 quality guidelines for -- for some time now. I worked
5 with the Canadian Councils of Min -- Ministers of the
6 Environment on the derivation of CCME water quality
7 guidelines, contributing to the last technical document
8 they released in 2007 on that topic.
9 I have worked with the National
10 Agricultural and Environmental Strategic Initiative on
11 the derivation of environmental quality guidelines. And
12 I've also worked on the det -- on the -- I'm doing
13 research at the University of Waterloo on the estimation
14 of natural background concentrations, which is what a
15 reference condition benchmark is.
16 Robert gave a definition of a site-
17 specific water quality objective. I want to clarify that
18 what we're talking about is the concentration of a
19 chemical in a water. That's what a site-specific water
20 quality objective is.
21 It's a concentration that we pick somehow,
22 and we pick it so that we are going to be protective of
23 the environment. You can imagine that if we pick a very
24 high number it won't be as protective as a low number.
25 There's different ways of picking these

1 numbers. At a very high level they can be defined --
2 divided into two (2) major classes. The first way of
3 generating a site-specific water quality objective is to
4 go out to the natural environment like Prairie Creek and
5 take a measurement at a location and then move somewhere
6 else in that watershed and take another measurement and
7 then do the same thing at different locations in that
8 same -- in that watershed and go out over a period of
9 years.
10 And so what happens in -- during that
11 process you -- you've collected a set of data, a set of
12 information that tells you in the absence of a mine what
13 is the water quality in that receiving environment. So
14 you know what the natural background is before you start
15 discharging. If you can't do that you do it immediately
16 upstream of the mine.
17 There was a question earlier today by one
18 (1) of the Board members about the Mean Plus 2 standard
19 deviations and RCA. What that means is that they take
20 the average of all those data that were collected for a
21 chemical and then we add a number to it. And the
22 standard deviation is a measure of how variable the data
23 are. So if all of our measurements are say ten (10),
24 nine (9), eight (8), ten (10), nine (9), eight (8), like
25 that, very tight, then we're pretty certain that the

1 number is somewhere around nine (9).
2 But if he numbers are from one (1), nine
3 (9), nineteen (19), three (3), five (5), seven (7) we're
4 not so sure where that number is. And so when we add a
5 measure of variability to it we're going to come up with
6 the reference condition which is maybe around fifteen
7 (15). Whereas in the first -- in the first scenario
8 where the data are really tight, in other words there's
9 not much variability, we'll come up with a number around
10 eleven (11).
11 So it's the average condition plus some
12 acknowledgement to the amount of variability that exists
13 in Prairie Creek, that's how we define that reference
14 condition, number or benchmark.
15 It's -- it's a simple approach. It's very
16 practical and applicable because it's derived from
17 Prairie Creek data.
18 The second way of estimating a water
19 quality guideline is to use what's called an effects-
20 based approach or a toxicity-based approach. In that
21 approach the results of many toxicity tests are used to
22 estimate what a safe water quality concentration is.
23 Now a toxicity test is an experiment
24 that's conducted in a laboratory. We take an animal like
25 a rainbow trout and we put it in a tank and we expose it

1 to a copper concentration, for example, if we're
2 interested in a guideline for copper. And we -- we take
3 another tank and we -- we put rainbow trout in that and
4 we expose it to a lower copper concentration. And we do
5 that for a series of copper concentrations and at the end
6 of the day after usually ninety-six (96) hours of
7 exposure in those tanks, we calculate the concentration
8 that kills 50 percent of those rainbow trout. That's
9 called a ninety-six (96) hour LC50 for rainbow trout.
10 So we do that for other species.
11 Hopefully, those are species that live within Prairie
12 Creek. And what'll happen is that we'll have some
13 species that are very sensitive to copper, and we'll have
14 other species that are not very sensitive to copper. And
15 using that range of sensitivities, we decide on a
16 concentration that we think will protect the species that
17 live in Prairie Creek.
18 Now, there -- there are various ways to
19 choose what that lower concentration is. The older
20 method involved looking at all the toxicity data that
21 were available, that met quality criteria, and then
22 dividing that number by a safety factor. That's the old
23 CCME approach to generating a water quality guideline.
24 The problem with that approach, and it's
25 well documented in the literature, is that when we divide

1 by a certain number, we don't know what level of safety
2 we're providing for the environment, because it's -- the
3 safety factor is arbitrarily chosen. So, because of
4 that, that criticism of CCME water quality guidelines, a
5 new approach was devised and that's the approach that was
6 released in 2007.
7 And in that approach, we use the same set
8 of data that we collected earlier, but instead of
9 guessing and dividing the lowest number by ten (10), we
10 fit a statistical model to those toxicity test results.
11 Using that model, we predict a concentration that will
12 protect 95 percent of the species. It's important that
13 we're not protecting 100 percent of the species. The C -
14 - the new CCME method that uses this statistical tool is
15 called -- protects -- seeks to protect 95 percent of the
16 species in an aquatic ecosystem.
17 So stepping back to where I started, there
18 are two (2) major ways of generating a water quality
19 guideline: one (1) is to look at what's there and pick a
20 number that represents the highest range that we have
21 seen, and use that as a water quality objective; or we
22 can use a prediction based on toxicity test results.
23 INAC is recommending use of the reference
24 condition approach to estimating a water quality
25 guideline for this watershed. The reason for doing that

1 is -- is multifaceted. Part of the reason is where
2 Prairie Creek Mine is, or the Canadian Zinc mine is
3 located. It's located just outside Nahanni National
4 Park. It's located just outside a UNESCO World Heritage
5 site. It discharges -- Prairie Creek discharges into a
6 Canadian Heritage river; that Canadian Heritage river has
7 an Aboriginal fishery in it. So we think that Prairie
8 Creek should receive the highest level of protection that
9 we can give it. That's why the reference condition
10 approach was chosen.
11 INAC isn't the only person that's
12 recommending a reference condition approach for Prairie
13 Creek. A study was conducted over a period of years in
14 the early part of 2000, 2001, 2002, and a report was
15 released in 2003 by Hallowell and Cadeau (phonetic).
16 They explored the water quality in the Prairie Creek
17 region and in the Nahanni Park area, and came up with a
18 set of water quality objectives based on the background
19 concentrations that they measured. Dube and Harwood, in
20 a report provided by the consul -- by the proponent, they
21 were Canadian Zinc's consultants, also suggested that the
22 reference condition approach be used for Prairie Creek
23 Mine.
24 Parks Canada says that the water quality
25 variables should not deviate beyond the range of natural

1 variability. That is what the reference condition
2 approach ensures.
3 The Naha Dehe Dene Band said that
4 environmental quality criteria should be chosen that are
5 most protective of the environment. So there -- there
6 are a variety of people that are advocating the use of
7 this reference condition approach, not just INAC. The
8 proponent has suggested that we use a mixture of RCA
9 benchmarks, or reference condition benchmarks, and CCME
10 water quality guidelines.
11 While it's true that CCME water quality
12 guidelines are used in Canada for the protection of
13 water, there are reasons not to use them. The -- the
14 first reason is that the Canadian Council of Ministers of
15 Environment has a policy, and it's called the non-
16 degradation policy. And they state that the preservation
17 of natural waters should be protected. They -- I lost
18 it.
19 Other reasons for not using the CCME water
20 quality guideline is that, like Environment Canada
21 mentioned earlier, the guidelines are derived on the
22 basis of one (1) chemical at a time. I talked about a
23 toxicity test for copper for rainbow trout, and a
24 toxicity test for copper for other species. It only
25 considers the effect of copper. So when I estimate a

1 water quality guideline for copper it only looks at the
2 effect of copper.
3 But Canadian Zinc is not just discharging
4 copper to the water, they're discharging other things,
5 like cadmium, zinc, lead, and it's possible for those
6 chemicals to act in a way -- they work together to cause
7 deleterious effects.
8 They can also work together to reduce the
9 toxicity of each other. But the fact is we don't know
10 how they're going to act together in the receiving
11 environment. So that's another reason for not using CCME
12 water quality guidelines.
13 Another reason is that while CCME
14 guidelines use a variety of organisms in the derivation
15 of a number, the -- those organisms may not be those that
16 live in Prairie Creek, so we have to be careful about
17 whether those results are applicable.
18 It's also possible that there exist
19 specific species within Prairie Creek that are keystone
20 species with respect to the ecology of the system. By a
21 keystone species I mean that a lot of food energy flows
22 through that species. And if that species is effected,
23 then it can upset the entire ecosystem. And if that
24 species is particular sensitive to a chemical
25 contaminant, then the -- the watershed can be effected

1 even if a CCME water quality guideline is used.
2 The CCME guidance document feels so
3 strongly that they have a specific clause on this called,
4 "The protection of keystone species." And I'll read it.
5 It says that:
6 "If it can be demonstrated that a data
7 point below the recommended guideline
8 is for a species at risk within a give
9 province, territory, or region for a
10 species of commercial or recreational
11 importance or for an ecology
12 important..."
13 And that's the part about a keystone
14 species:
15 "...then jurisdictions may use that
16 data point as the basis for deriving
17 the applicable guideline value."
18 So what -- what they're saying is, if you
19 know that there's a sensitive keystone species in the
20 water, go out and do toxicity tests on it. If the
21 concentration that causes an effect for that species is
22 below the CCME water quality guideline, ignore the
23 guideline, choose the lower value.
24 To the best of my knowledge, we don't
25 really know what the ecology of Prairie Creek is. As

1 evidence, I can cite a paper by Bowman et al., who did
2 work in Prairie Creek within the last five (5) years. I
3 believe it was 2009. And they found two (2) new species
4 in Prairie Creek that had never been found there before
5 or even in the Northwest Territories.
6 So I'm not sure what we can say about the
7 -- the ecosystem and the food webs within Prairie Creek
8 in terms of their sensitivity to specific contaminants.
9 So I've talked about the CCME water
10 quality guidelines and concern for their use. Now I'm
11 going to go back to the reference condition approach and
12 why we should use it.
13 One (1) of the big reasons is that if we
14 use the reference condition approach and we keep the
15 water quality within Prairie Creek the way it is now we
16 can be pretty sure that there's not going to be large
17 changes in the ecosystem.
18 Now you'll notice that I didn't say no
19 changes, and that might be -- you know, that might
20 confuse people. The reason is that right now the amount
21 of chemicals, say, for example, copper, that is in
22 Prairie Creek goes up and down with the seasons and goes
23 -- changes over the years, so sometimes it's very low and
24 sometimes it's higher.
25 If we use a reference condition approach

1 to discharge, discharge will be happening at the highest
2 level that's every seen in Prairie Creek, or almost that
3 level. So it's not that things will stay the same. The
4 chemistry is going to change in the water, even using a
5 reference condition approach.
6 We're going to be putting -- loading the
7 system with substances at the highest level that they are
8 now seen within the creek, so we have to be careful even
9 when we use a reference condition approach and talk about
10 no change. There's a very strong assurance of no
11 deleterious effects, very strong, but there will be
12 changes, even with this.
13 It's INAC's positions that using the
14 reference condition approach will best preserve the
15 ecological integrity of Prairie Creek as it is. Other
16 interested parties will have -- will -- will be proposing
17 levels that are thought to be protective of Prairie
18 Creek. And the question I have at that point is: How
19 certain are you that they are protective? Because we can
20 look at a series of toxicity tests and predict a lower
21 concentration or take a guess, but there's still a
22 possibility of change, and what that change is we may not
23 know.
24 So INAC will be discussing a proposal or a
25 process to use reference conditions as a starting point

1 for the derivation of a site-specific water quality
2 objectives for Prairie Creek and then look at deviations
3 from that. And those deviations will cau -- will allow
4 for potential changes to Prairie Creek.
5 INAC's position is that there should be no
6 changes to the ecologic structure of Prairie Creek and
7 the Nahanni River. It's consistent with Parks' Canada
8 belief that there should be no change to the ecologic
9 integrity.
10 But what we need to do, what we need to
11 have to make a decision is what other people believe is a
12 level of acceptable change. It may be that there are
13 other parties that will allow for a change in Prairie
14 Creek, they don't mind.
15 It may be that there's a -- a time when
16 the cost to implement mitigation strategies is so high
17 that the mine will not be able to be economically viable
18 unless some changes are allowed within Prairie Creek.
19 The question that I think this EA has to address is what
20 is an acceptable level of change in Prairie Creek for all
21 stakeholders. Thank you.
22 MR. ROBERT JENKINS: Thank you, Mr.
23 Chair, it's Robert Jenkins with Aboriginal Affairs.
24 MR. KEVIN O'CALLAGHAN: I'm -- it's Kevin
25 O'Callaghan, very -- I apologize for interrupting, but

one (1) of the Board members has just left the room.

THE CHAIRPERSON: We'll just stop there for just a second.

(BRIEF PAUSE)

THE CHAIRPERSON: Okay. We've -- we've got the Board members back here. So we apologize for the inconvenience but we'll proceed again. Continue on, please, and thank you for the point of order.

MR. ROBERT JENKINS: Thank you, Mr. Chair. It's Robert Jenkins again with Aboriginal Affairs. No worries about the -- the slight delay.

Aboriginal Affairs believes that site-specific water quality objectives for Prairie Creek must be derived such as they considered the natural variability of Prairie Creek.

Accordingly, INAC recommends that the reference condition approach is the appropriate starting point for the derivation of site-specific water quality objectives.

Aboriginal Affairs would like to make it clear that is -- it's not requesting that this reference condition be met at the end-of-pipe, rather at the end of the predefined mixing zone.

1 We believe that all industrial operations
2 in the north should strive to provide the highest level
3 of protection possible to the receiving environment,
4 including the aquatic environment. This philosophy is
5 consistent with the intent of the NWT Water Strategy
6 jointly released by the GNWT and Aboriginal Affairs in
7 May of 2010.
8 This document outlines a strategy of
9 protecting and preserving northern waters, such that they
10 will remain clean, abundant and productive for all time.
11 Mr. Chair, we heard yesterday through many
12 statements the importance of protecting the water and the
13 high value of the water to the people of the Dehcho
14 region. We also heard through many statements the desire
15 for employment and for responsible resource development.
16 The Department is requesting the use of
17 the reference condition approach as the starting point
18 for the derivation of site-specific water quality
19 objectives. We are confident that this approach will
20 ensure that the ecological integrity of Prairie Creek and
21 the down -- and downstream into the Nahanni National Park
22 Reserve will be protected.
23 However, Mr. Chair, Aboriginal Affairs
24 recognizes that we may be in a situation for several
25 water quality parameters where we will need to discuss

1 deviations from the reference condition. Mr. Chair,
2 Aboriginal Affairs will put forth that these discussions
3 need to take place, and that they need to do so within
4 the context of the environmental assessment.
5 The first question that needs to be asked
6 is: What could be done operationally to achieve the
7 reference condition? Aboriginal Affairs will put forth
8 that if it -- that if it is at all possible to achieve a
9 site-specific water quality objective derived using the
10 reference condition, then that site-specific water
11 quality objective should always be used.
12 A combination of traditional and western
13 scientific-based knowledge should be utilized to
14 establish acceptable and safe concentrations that deviate
15 from that standard. Aboriginal Affairs believes that the
16 highest level of protection possible for Prairie Creek
17 should be provided, considering the location and use of
18 Prairie Creek, as well as the species which inhabit this
19 water course.
20 Mr. Chair, we are proposing a process.
21 Since submitting our recommendation, we've talked to many
22 people, many parties of the EA as well as the developer.
23 We want to remain cognizant of the timing of the work
24 required, but also believe that it is relevant and
25 justifiable to be completed within the environmental

1 assessment. After discussing the recommendation with
2 Canadian Zinc and other parties, Aboriginal Affairs is
3 considering revising its recommendation to account for
4 process and timing concerns that have been raised.
5 Mr. Chair, two (2) things need to be done
6 prior to the completion of the EA: Number 1 is to get
7 input from all parties regarding limits on change; and
8 the second is, for those parameters for which the RCA
9 cannot reasonably be met, develop a process to develop
10 site-specific water quality objectives that demonstrably
11 achieve the desired level of protection.
12 INAC maintains that the site-specific
13 water quality objectives should be based on the reference
14 condition approach, as a starting point. If RCA
15 benchmarks can be met for certain parameters, as
16 demonstrated by Canadian Zinc in their presentation, we
17 recommend that they should be adopted as site-specific
18 water quality objectives.
19 For parameters where RCA benchmarks cannot
20 be met for reasonable and justifiable reasons, we submit
21 that a further process is required to determine what is
22 an acceptable level of change for this specific receiving
23 environment. This is an important part of the EA
24 process, and it will inform regulatory decisions on this
25 project.

1 This process must occur in a timely
2 fashion, and requires the full participation of all
3 parties to the EA with an interest in this issue.
4 Aboriginal Affairs is encouraged by recent
5 discussions with the developer, and anticipates that the
6 parties can work together to develop site-specific water
7 quality objectives that are acceptable to all parties.
8 Aboriginal Affairs and the developer have agreed to meet
9 next week to discuss this process, including the
10 potential modifications of our recommendation, and we are
11 willing to undertake to develop or revise recommendation
12 with a clear definition of the proposed process going
13 forward, including timing, for the Board's approval.
14 Mr. Chair, in conjunction with this work,
15 it is imperative that the point at which the site-
16 specific water quality objectives are implemented must be
17 established. As I mentioned previously, this is what we
18 call an assessment boundary. It is important to note and
19 consider that the proponent's estimates of in-stream
20 water quality affected by mine-related activities show
21 very little decrease between the edge of a proposed
22 mixing zone 100 metres downstream of the site and the
23 Nahanni National Park Reserve boundary 7 kilometres
24 downstream.
25 In other words, following the initial

1 mixing zone there's very little dilution available to
2 improve the quality of the water. Accordingly, site-
3 specific water quality objectives generated at the edge
4 of this mixing zone essentially be the level of
5 protection provided to Prairie creek with the Nahanni
6 National Park Reserve as well.
7 Aboriginal Affairs is of the opinion that
8 the location on the assessment boundaries should be
9 determined hand-in-hand with the establishment of site-
10 specific water quality objectives.
11 Accordingly, we recommend that in-stream
12 water quality must meet site-specific water quality
13 objectives at the edge of this assessment boundary.
14 The location of the assessment boundary
15 for the Prairie Creek Mine would have to be determined in
16 conjunction with the establishment and evaluation of
17 site-specific water quality objectives for Prairie Creek
18 in accordance with the process I just recently provided.
19 One (1) parameter of particular concern to
20 Aboriginal Affairs is mercury. We've reviewed the
21 mercury assessment and find that a more thorough
22 assessment of potential mercury related impacts is
23 required to ensure unacceptable levels in fish and the
24 aquatic ecosystem do not occur.
25 Studies to date such as Spencer et al.

1 2008 have documented an increase in fish tissue mercury
2 concentrations downstream of the mine site in advance --
3 even in advance of operations.
4 Work still needs to be done to probatively
5 define existing concentrations of mercury in Prairie
6 Creek water and sediment upstream of the mine. The
7 proponent has completed only a qualitative assessment of
8 the potential for mercury to bioaccumulate in Prairie
9 Creek.
10 Mercury will be present in effluent
11 concentrations from the proposed treatment plant and
12 concentrations ranging from 0.01 to 0.48 micrograms per
13 litre. This concentration is sufficient to trigger the
14 requirement for fish tissue studies under the Metal
15 Mining Effluent Regulation.
16 We are concerned over the use of CCME
17 guidance in deriving the site-specific water quality
18 objective for mercury considering a traditional fishery
19 does exist at the mouth of Prairie Creek.
20 The CCME Canadian Water Quality Guidelines
21 for the protection of aquatic life does note that the
22 mercury guideline was developed based on the CCME
23 protocol, and that this protocol does not asse -- not
24 address exposure through food or bioaccumulation to
25 higher trophic levels.

1 These guidelines further note that if the
2 ultimate management objective for mercury is to protect
3 higher trophic level aquatic life and/or those wildlife
4 that prey on aquatic life, more stringent site-specific
5 application of these water quality guidelines may be
6 necessary.
7 INAC has recommended that Canadian Zinc
8 collect and analyze additional samples using a
9 sufficiently low detection limit and have it be
10 seasonally representative to allow the development of the
11 site-specific water quality objective for mercury.
12 This work would have to be completed in
13 conjunction with the establishment and evaluation of
14 site-specific water quality objectives. It is important
15 to note, Mr. Chair, that the process that I had outlined
16 again previously may not all be completed in the context
17 of this EA.
18 We had also recommended that the developer
19 identify whether increases in mercury concentrations
20 resulting from their discharge can meet the reference
21 condition approach site-specific water quality objective
22 and quantify the level of impact in Prairie Creek
23 resulting for many increased concentrations of mercury.
24 We envision that this evaluation would
25 consider both the operational and the post-closure

1 period. Again, Mr. Chair, this -- this would have to be
2 completed in conjunction with the work on site-specific
3 water quality objectives.
4 Moving along to effluent quality criteria,
5 following the establishment of defensible, agreeable and
6 practical site-specific water quality objectives,
7 appropriately -- appropriate effluent quality criteria,
8 or EQCs, must be derived that the downstream objectives
9 are always achieved and an assessment boundary deemed
10 appropriate. This philosophy is outlined in the recently
11 released Mackenzie Valley Land and Water Board water and
12 effluent quality policy. It was released in March of
13 2011. As such, defensible site-specific water quality
14 objectives must be agreed upon before appropriate EQCs
15 cannot be derived.
16 EQCs are intended to serve a dual
17 regulatory and environmental protection role. In this
18 specific case, they must control the level of change that
19 will occur in aquatic receiving environment due to
20 discharges from the mine. Canadian Zinc has proposed
21 both maximum grab and average -- maximum average and
22 maximum grab EQC concentrations. Effluent mixing
23 calculations provided by the company show that discharges
24 at proposed maximum average concentrations will result in
25 accedences of several downstream objectives, the edge of

1 the mixing zone, and at the Nahanni National Park Reserve
2 boundary during low-flow Prairie Creek conditions.
3 THE CHAIRPERSON: I'd like to just add a
4 quick -- interject here for a quick second. It's twenty-
5 five (25) to 6:00. We have some food here. Maybe what
6 we could do is we could continue on, and if people want
7 to just help themselves and -- because I think we -- my -
8 - my concern here is that we've got -- are we looking at
9 going through the sixty-four (64) pages of this
10 presentation? Are we -- because it's the same
11 presentation that we had in Nahanni Butte, I think we
12 went through for an hour and a half, I think, the other
13 day.
14 So I'm wondering, should we maybe ask that
15 we get -- ask you to summarize what's here? And
16 otherwise, we're only on page 13 here, and -- and I'm
17 wondering if you would entertain that. Thank you.
18 MS. TERESA JOUDRIE: Mr. -- Mr. Chair,
19 it's Teresa Joudrie for Aboriginal Affairs and Northern
20 Development. This is not the same presentation that we
21 provided in Nahanni Butte. We did not go into detail in
22 Nahanni Butte on the technical aspects of the project,
23 and that's what we're intending to do right now. But if
24 you'd let us finish this slide, we'd be amenable to
25 letting people get a plate of food and letting us

1 continue.

2 THE CHAIRPERSON: Please proceed.

3 MR. ROBERT JENKINS: Thank you, Mr.

4 Chair. It's Robert Jenkins again with Aboriginal

5 Affairs.

6 EQCs are intended to serve a dual

7 regulatory and environmental protection role. In this

8 case, they must control the level of change that will

9 occur in aquatic receiving environment due to discharges

10 from the mine. Canadian Zinc has proposed both maximum

11 grab and maximum average concentrations.

12 Effluent mixing calculations show that

13 there may be accedences downstream at the maximum average

14 of concentration at both the edge of the mixing zone and

15 at the park boundary during low-flow conditions in

16 Prairie Creek. It is possible that accedences would also

17 occur during periods of mean flow if Canadian Zinc

18 deviated from, or was unable to maintain, the prescribed

19 effluent blending prior to discharge.

20 An analysis of potential accedences of

21 objectives for effluent concentrations and maximum grab

22 concentrations was not com -- completed. Grab sample

23 concentrations are greater than average concentrations,

24 so the number and magnitude of excursions above the

25 objectives may also be greater.

1 It is also foreseeable that excursions
2 from the objectives would increase and include other
3 parameters and concern even under the high Prairie Creek
4 flow scenario. The developer has not described how far
5 downstream any impacts due to effluent discharged that
6 would be high in the licence range would extend, nor have
7 they provided an assessment of impacts under that
8 scenario.
9 We recommend that defensible and
10 acceptable EQCs be based upon defensible and agreed upon
11 site-specific water quality objectives and it must be
12 demonstrated that they could be met under the average and
13 the grab discharge conditions.
14 We do note that the developer has outlined
15 potential regulatory approaches to be used in conjunction
16 with their proposed EQCs to help ensure compliance. We
17 feel that this discussion is premature until agreement is
18 reached on acceptable downstream objectives for Prairie
19 Creek.
20 That said, we are willing to discuss this
21 proposal during the site specific water quality objective
22 work in advance of the water licensing phase. So if I
23 could just give our recommendations on this topic before
24 we -- we stop, that would be appreciated.
25 So we've recommended that these measures

1 be implemented in the regulatory phase, that effluent
2 quality criteria under maximum grab concentrations be
3 back calculated from objectives based on the best
4 estimate inflow prediction, and that the proponent must
5 not discharge effluent that has concentrations above the
6 stipulated maximum grab concentrations in the licence,
7 and that any discharge from the end-of-pipe must meet the
8 maximum average concentrations as stipulated by the SNP,
9 and this will provide detailed instructions on the method
10 and timing for stam -- sampling, deriving, and reporting
11 average concentrations.
12 Thank you, Mr. Chair. If you want to take
13 a -- a slight break now, you could.
14 THE CHAIRPERSON: Yeah, I just want to --
15 maybe before we take -- maybe I'll -- we'll take maybe a
16 fifteen (15) break to eat and then we'll come back. I'm
17 going to suggest that maybe -- I know that you had
18 mentioned earlier that you guys wanted to leave, I think,
19 by 7:00 if I'm correct, or something like that.
20 But right now I think we're still -- well,
21 I'm not sure how far we're in -- into your presentation
22 yet, but we still have answers -- sorry, questions for
23 you, as well. And I'm going to suggest that maybe if you
24 guys wouldn't mind maybe, you know, we're here, we're --
25 we're going to listen until this is done, we're going to

1 go through the whole questions, as well, but I want to
2 ask that maybe you also consider, in fairness, that, you
3 know, maybe you guys may have to stay a little bit later
4 until we're -- we're done here. So I just want to
5 mention that, because I've got a Board member here that's
6 not doing well right now. He's in pain, but he's
7 toughing it out, as well.
8 So we want to make it work. So I'm going
9 to ask that we -- we have a little -- be fair, I guess.
10 So with that we'll take a couple minutes. We'll take a
11 fifteen (15) minute break, we'll have something quick to
12 eat and we'll come back.
13
14 --- Upon recessing at 5:43 p.m.
15 --- Upon resuming at 6:15 p.m.
16
17 THE CHAIRPERSON: Okay, if I could get
18 everybody to come in. We're going to start. We -- I
19 just want to make a note here that we had one (1) of our
20 Board members that wasn't doing well, but he hung on as
21 much as he can, so he asked to be excused for health
22 reasons.
23 So with that though, we're going to
24 continue on and -- but I want to, I guess, emphasise, and
25 I did say it on day 1 in Nahanni Butte in my opening

1 comments, that we have an agenda, and the agenda that we
2 have was posted in the registry. And everybody had an
3 opportunity to prepare their presentations, and we
4 received them.
5 And my concern would be is that we're --
6 we have a certain amount of time left, so I'm going to
7 maybe let INAC know that if we need -- we need --
8 actually, I need you to summarize your report the best
9 that you can in the next forty (40) minutes. And what we
10 need to do then is we still need to go through the
11 questions after that.
12 So I believe you also have a plane coming
13 in too, as well, so -- but we're going to stay until this
14 part is done. And so with that, I was going to continue
15 on with your presentation where you probably left off and
16 -- but I'm encouraging you that we have an opportunity
17 with these forty (40) minutes, so if you could help us
18 out, that would be really great.
19 With that, okay, I'm going to continue on
20 now because I think we've got everybody here. Please
21 proceed.
22
23 CONTINUED PRESENTATION OF INAC:
24 MR. ROBERT JENKINS: Thank you, Mr.
25 Chair. Robert Jenkins, with Aboriginal Affairs. This

1 next general category under water quality is effluent
2 discharge. The proponent has proposed to use an
3 exfiltration trench for his discharge into Prairie Creek,
4 and this is to promote mixing within the creek.
5 A successful operation of that trench is
6 imperative to achieving the downstream objectives for
7 water. Aboriginal Affairs concurs with the developer
8 that discharging through a culvert or diffuser is not a
9 viable option for the proposed operation.
10 The proposed exfiltration trench is a
11 reasonable strategy and may provide enhanced mixing.
12 However, this application is not proven and complications
13 may occur.
14 In discussions with the references
15 provided by Canadian Zinc on this discharge mechanism the
16 following information was provided:
17 The first was that complete mixing does
18 not occur within the trench and that there are sort of
19 discreet jets or streams which enter the receiving water
20 body. However, mixing appears to occur approximately 100
21 yards downstream of the trench. There was also an
22 incitent -- an incident which occurred where the
23 exfiltration pipe was -- was plugged by debris and it had
24 to be rehabilitated.
25 And the last piece of information that was

1 provided to us was that the pipe broke at a po -- at a
2 point where there was provision for a lateral line
3 resulting in differential movement of portions of the
4 pipe, so the -- the pipe essentially moved. The pipe had
5 to be excavated and repaired.
6 So again, successfully operating this
7 trench is essential to achieving the downstream
8 objectives. So we recommend that the -- the final design
9 of the trench and the twinned pipe should account for any
10 sort of failures which could happen similar to those that
11 I have just mentioned.
12 And we recommend that the proponent
13 evaluate the requirement for a screen or some sort of
14 structure on the upstream end of the pipe to minimize the
15 potential for debris entering the pipe and clause --
16 causing a blockage.
17 And obviously, we recommend that the
18 performance of the trench be monitored as part of the
19 requirements within the licensing phase to confirm that
20 adequate performance is achieved.
21 Canadian Zinc has identified that effluent
22 may be discharged directly into Harrison Creek as a
23 contingency in the event that this trench cannot be used.
24 And we feel that any discharge through a culvert directly
25 into Harrison Creek must be under emergency conditions

1 only. This is due to the level of mixing through this
2 direct discharge is likely to be insufficient, and we
3 feel that any effluent discharge in this fashion should
4 not include a processed water component.
5 Aboriginal Affairs recommends the
6 following with respect to the use of Harrison Creek as a
7 -- as a contingency for -- for their effluent discharge:
8 that no effluent be discharged by the culvert into
9 Harrison Creek unless an emergency situation has been
10 declared by the Board, and this is the Land and Water
11 Board; any discharges to Prairie Creek via Harrison Creek
12 must be short term in duration to avoid potentially --
13 potential increased effects to the environment from --
14 from discharging in this manner.
15 During this scenario there must be an
16 emergency plan developed and submitted to the Board,
17 which must be followed by the company, and we feel that
18 that should include a complete shutdown of mining and
19 milling operations.
20 So far we've talked about the importance
21 of driving defensible site-specific water quality
22 objectives, which would be the level or the standard of
23 water quality to be met at a point within Prairie Creek
24 downstream of the mine.
25 I've also explained that these objectives

1 are linked to and are needed to determine the -- the end-
2 of-pipe effluent quality concentrations. And we've
3 suggested a path forward in those areas.
4 But once objectives are derived through
5 the EA and criteria are established within the licence
6 and the mine is in operation, it is an imperative --
7 imperative that a comprehensive yet appropriate aquatic
8 effects monitoring program is implemented to ensure that
9 the limits and the objectives which have been set
10 previously are doing their job in providing an adequate
11 level of protection to the aquatic receiving environment.
12 We define aquatic effects monitoring as
13 watching closely for changes to the water environment
14 through observations or measurements. Both traditional
15 knowledge based and western science based observations
16 provide information on the quality of water, the amount
17 of water, and the health of the fish and insects or
18 organisms that live in the water.
19 An AEMP is a program undertaken by a
20 developer to measure the effects of the development
21 project. They provide an early warning of any negative
22 effects of that project on the water environment. And
23 this early warning system is used to manage the project
24 to reduce these effects.
25 We're pleased that the developer is

1 committed to developing its AEMP in accordance with
2 Aboriginal Affair's guidelines for designing and
3 implementing aquatic -- aquatic effects monitoring
4 programs for development projects in the NWT.
5 We note that the most recent AEMP document
6 provided by the developer relies on environmental effects
7 monitoring guid -- guidance, or EEM guidance. In
8 Aboriginal Affair's opinion, EEM requirements for
9 monitoring are a valuable component of -- of an AEMP, but
10 on their own do not constitute an AEMP. Accordingly,
11 INAC is pleased that the developer is committed to
12 revisit and revise its AEMP. We look forward to working
13 with the developer in that regard.
14 There's an eight (8) step process which is
15 sort of outlined in our guidelines and I won't get into
16 any details on those. They're -- they're outlined within
17 our technical report.
18 But I do want to highlight for the Board
19 the importance of the last step of the -- of the Aquatic
20 Effects Monitoring Program progress, which is the
21 application of the results through monitoring within a
22 management response framework.
23 So management response is -- is also
24 commonly known as adaptive management, and it's a way to
25 continually improve the management of a project by

1 learning from the information collected year to year
2 through the Aquatic Effects Monitoring Program.
3 The results of an AEMP could lead to a
4 change in the amount or location of waste that is
5 released from a development project if the results show
6 that a certain chemical being discharged had a negative
7 effect on the environment.
8 Aboriginal Affairs is concerned with the
9 developer's proposed action levels and associated
10 management response as it relies on an observed negative
11 effect or exceeding a licence criteria for any sort of
12 management response to be invoked.
13 The INAC guidelines stress the importance
14 of developing low, medium, and high action levels. And a
15 high action level corresponds to essentially the -- the
16 maximum acceptable change as established within the
17 environmental assessment.
18 So in this manner of -- of looking at low,
19 medium, and high, it is envisioned that a management
20 response would be -- would be started in advance of -- of
21 seeing a high action level or -- or seeing something that
22 would be the maximum acceptable. So you'd start some
23 sort of management response before you get to that
24 extreme, the highest acceptable level.
25 Accedence of that maximum acceptable --

1 acceptable level should not be permitted. The
2 appropriate management response would be to take
3 immediate action and reverse that problem.
4 Again, we are pleased that the developer
5 is committed to revisiting and revising its -- its
6 guidance document which includes guidance on development
7 of this adaptive management framework.
8 And our recommendation is simply that the
9 developer use our guidelines to develop an AEMP, action
10 levels and related management response. We feel this
11 work could be done in conjunction with the work on the
12 site-specific water quality objectives.
13 So moving along, we'll talk about water
14 management, tailings management storage. First we'll
15 talk about water management storage. The site water
16 balance is a key component to Canadian Zinc's overall
17 operation, and maintaining the water balance will be
18 critical to protecting the aquatic receiving environment.
19 The total working capacity of the water
20 storage pond is limited by the top of the pond or the
21 operational crest which is at 880 metres and the minimum
22 water level within the pond to maintain stability of the
23 pond walls, which is 87 -- 877 metres. This provides 3
24 metres of operating capacity.
25 Although the pond itself has a much larger

1 overall storage capacity, the entire storage volume of
2 the pond has been estimated by Canadian Zinc at 450,000
3 cubic metres, but approximately half of that -- only half
4 of that volume is available during operations due to
5 stability issues of -- of the pond itself.
6 Canadian Zinc's provided water balances
7 that require continuous annual discharge except for
8 processed water, which will not discharge during
9 April/March. Continuous discharge is required to
10 maintain their water balance on an annual basis.
11 An assessment has not been conducted to
12 evaluate effects to the short-term and annual water
13 balance from -- from anything that would happen that
14 would stop these required discharges, and this may
15 include but not be limited to poorer than expected water
16 quality from the mine or mill, issues with the treatment
17 plant, issues with the exfiltration trench, or accedences
18 of effluent quality criteria or downstream objectives.
19 The developer has proposed an approach to
20 respond to these water management issues is to store more
21 water in the pond. Depending on the nature, timing, and
22 frequency of these upsets, as I mentioned earlier, the
23 contingency volume of the pond could be exceeded in a
24 very short time frame.
25 We're concerned that the water balances

1 require that the water storage pond level must be drawn
2 down to the 877 minimum level prior to the winter to
3 maximize the overwinter storage potential.
4 Any sort of -- anything that could happen
5 that would -- would deviate or -- or take away from the
6 water balance as proposed during the fall could mean that
7 Canadian Zinc might not be able to discharge water during
8 a period when it is necessary to draw down their level.
9 Depending on the water level at the start
10 of winter operations there could be winter storage issues
11 since water levels within the pond increase as discharge
12 volume is restricted to meet effluent quality criteria
13 during low flow conditions.
14 This is of concern for Cell A which holds
15 the acutely toxic processed water. The entire storage
16 capacity of Cell A may be exceeded during the winter.
17 This condition would jeopardize the quality of effluent
18 during the late winter months when Prairie Creek flows
19 are lowest; thus, EQCs or objectives downstream would be
20 in jeopardy of being exceeded. A late spring where
21 Prairie Creek flows remain low for an extended period
22 could make this storage issue even worse.
23 The water balances provided do not
24 identify how any changes to mill water could impact the
25 blend of water that is released to the environment. If

1 the volume within Cell A, which again holds the acutely
2 toxic processed water, if that increases, less mine water
3 will be used in the mill feed stream. Poor water coming
4 out of the mill could mean that even poorer water will
5 come out of -- would mean that even poorer water coming
6 into the mill, sorry, would mean that even poorer water
7 would come out of the mill.
8 The developer will be discharging a blend
9 of processed water and mine water in order to meet its
10 objectives. Any change to mill water quality could
11 jeopardize the ability to meet these objectives and their
12 criteria. If so, the blend of mill water would need to
13 be -- the apportionment of mill water would need to be
14 reduced and storage of mill water would be required.
15 If this condition lasted for weeks or
16 months the quality of the water to be released could
17 present increased toxicity. Having high water levels
18 within Cell A of the storage pond would make the release
19 of this water to Prairie Creek more difficult.
20 Such issues would require additional water
21 storage capacity and/or enhanced treatment schemes.
22 Failing to meet criteria at the end-of-pipe or objectives
23 downstream would trigger a noncompliance with the water
24 licence, requiring all discharge to stop.
25 Aboriginal Affairs recogni -- or requires

1 that the water management scheme and water balance
2 clearly illustrate that the available storage volumes and
3 contingency volumes is sufficient to maintain adequate
4 effluent quality on a range of conditions, including
5 upsets to operations.
6 We recommended that the water storage pond
7 must not be operated such that the water level does not
8 go into the 1 metre freeboard. That freeboard must be
9 reserved for short-term emergency situations and it must
10 not be used as a contingency against short-term
11 operational upsets which should be expected and planned
12 for over the life of mine.
13 In addition to the above concerns, and
14 more notably, upsets to flow tailings management and
15 paste backfill operations have serious implications for
16 site water management.
17 And now I'll pass it over to Mr. Brodie to
18 talk about his concerns with the proposed tailings
19 management.
20 THE CHAIRPERSON: Okay, thank you. And
21 before you do that, I just want to mention that I give
22 you guys forty (40) minutes to help do this presentation,
23 so I was wondering, I give you about twenty (21) minutes
24 there or so, and then we go into questions. Thank you.
25 MR. JOHN BRODIE: Mr. Chairman, this is

1 John Brodie speaking. I'm going to be talking briefly
2 about the tailings management and the tailings backfill
3 issues for the Prairie Creek mine, and these are
4 important for two (2) reasons.
5 The first is that the tailings storage in
6 the water storage pond will affect the volume of water,
7 or volume of the pond which is available for water
8 management, and the ability to meet water discharge
9 objectives.
10 And secondly, there's a potential for a
11 surplus of tailings to remain on surface after all the
12 reclamation measures have been completed.
13 In the mining process when we start with
14 solid rock and grind it up into fine sand in order to
15 extract the minerals, the rock increases in volume by
16 about 40 percent, which means that 1 cubic metre of solid
17 rock grows to be about 1.4 cubic metres of material.
18 And this is the underlying reason why it
19 is unusual for any mine to plan to put all their tailings
20 back underground, is because it's going to be 40 percent
21 bigger than what you started with.
22 In the case of the Prairie Creek Mine
23 there are two (2) aspects that make it worthwhile
24 discussing the possibility of putting all the tailings
25 underground. The first is that about 11 percent of the

1 material is removed as the concentrate, the mineral that
2 they recover, and an additional 17 percent is removed as
3 the dense media tailings which goes to the rock pile.
4 So approximately 18 percent of the sand is
5 removed. And this means that the remaining tailings is
6 only about 10 to 15 percent bigger than the original rock
7 volume. In other words, it's just slightly bigger than
8 the hole that it came out of.
9 However, with that 10 to 15 percent excess
10 it means that throughout the mine operation there will
11 always be a small surplus of tailings which cannot be
12 placed underground and will accumulate in the water
13 storage pond. Based on the best case scenario for mining
14 and backfilling operations, this is expected to amount to
15 about 225,000 cubic metres of tailings, which is enough
16 to completely fill Cell A or the water storage pond.
17 And the implication of this is that
18 towards the end of mine operations there will be
19 virtually no capacity in Cell A for storage of processed
20 water and it will be necessary to treat and discharge
21 process water year round, and this is predicted to cause
22 impacts.
23 In addition to this, at the end of
24 operations, and again, based on the best case scenario
25 for tailings management, the accumulated tailings in the

1 water storage pond could be placed in the mined out
2 access drifts in the mine.
3 And if this was done, approximately 99.97
4 percent of the available space in the mine would have to
5 be filled. In other words, every single void has to be
6 completely filled, but in principle, it's on the edge of
7 possible.
8 However, there are four (4) factors which
9 make this backfill plan optimistic. The first is it may
10 be impractical to backfill 100 percent of all the stopes.
11 Secondly, there may be fluctuations in the operation of
12 the paste plant, or periods of time when the paste plant
13 is -- is, in fact, not operating at all, and low density
14 tailings is -- is placed in the mine.
15 The third factor is that backfilling with
16 -- in -- into the mine with increased use of DMS material
17 will reduce the amount of cement that's required in the
18 tailings and this will have a substantial effect on
19 costs. In other words, there's a financial incentive to
20 use more DMS material, which would then take the place of
21 floatation tailings to be put in the mine later.
22 And on the same concept of financial
23 aspects is that the backfilling with development waste
24 would also occupy space in the mine. If that was done it
25 would occupy space that would otherwise be planned for --

1 for tailings.

2 All these four (4) factors which I just

3 described, each of them might be only a few percent

4 change in the performance of the backfilling. However,

5 even if they collectively added up to only 5 percent

6 change in backfilling efficiency, it would result in the

7 volume of tailings in the water storage pond rising to in

8 excess of 300,000 cubic metres. In other words,

9 potentially up to two-thirds (2/3s) of the water storage

10 pond would be occupied with tailings.

11 The comments that I've just made are all

12 provided in detail in the attachments to INAC's

13 intervention, and an important aspect of that

14 documentation, which includes some dialogue, written

15 dialogue with the developer, is that the tailings density

16 value upon which the conclusions I've presented here is

17 based is -- was verified in a personal email

18 communication with the developer's paste engineer. So

19 he's confirmed that we've used the correct parameters in

20 reaching our conclusions.

21 Going on from this, and we understood from

22 yesterday that the developer has an undertaking to

23 provide an updated assessment of -- of backfilling plans,

24 and we also heard in the discussions or questions

25 yesterday that the company indicated that they intend to

1 address this backfill volume problem by reducing the
2 amount of dense media material in the backfill. And this
3 could be done to lessen the backfill issue with respect
4 to the volume of -- of material that might be left on
5 surface.
6 However, there's a couple of things that
7 will arise if that modification was made. One is that
8 there will be more material placed in the rock pile,
9 because the dense media material will not be going
10 underground. Secondly, the reduction in the use of dense
11 media material will affect the efficiency of mining
12 operations as it relates to the operation of the mining
13 method on the backfill material, and this is -- this
14 issue is described in the Appendix 15A paste report on
15 page 17, and the offsetting consideration to that would
16 be the increased use of cement to make up for the
17 strength loss associated with not using the DMS material.
18 And in that same report, on page 25, the -
19 - the engineers have noted that even a 1 percent change
20 in the amount of cement would cost in excess of $1
21 million a year of additional costs. I think I said that
22 incorrectly. An increase in the amount of cement by 1
23 percent in the tailings would increase operating costs by
24 in excess of $1 million a year. So things that are being
25 considered in terms of reducing the DMS material in the

1 tailings could be done, but they come with a substantial
2 financial and operational difficulty.
3 I'll turn it back to Robert Jenkins now.
4 MR. ROBERT JENKINS: Thanks. This is
5 Robert Jenkins again.
6 Mr. Chair, increased tailings storage in
7 the water storage pond will have critical implications
8 for water storage, effluent aging and effluent blending
9 during the course of operations. So considering this, we
10 must be confident that tailings backfill plans and
11 temporary storage contingencies available during the
12 operation are adequate. The extent to which any proposed
13 contingencies would reduce or eliminate the risk to the
14 downstream aquatic environment must be clear.
15 Based on the current information, INAC
16 believes that there is a likelihood the tailings will
17 remain on surface at closure. Canadian Zinc has
18 committed, within its environmental assessment, that no
19 surface storage of tailings will occur on the Prairie
20 Creek flood plain. As mentioned within our tactical
21 report, we recommend that the following information is
22 necessary, prior to the end of the environmental
23 assessment, and these are contingencies in the event the
24 tailings are left at the surface and within the storage
25 pond, and descriptions of any impacts from the mine post-

1 closure if tailings remain on the flood plain.
2 Our recommendations on this are made to
3 ensure that proposed operational volume of the pond is
4 maintained and a temporarily stor -- tailings staging
5 areas are properly managed to avoid the potential for
6 significant adverse effects from the operation, as this
7 is imperative to ensuring that site-specific water
8 quality objectives are met. I won't read out our
9 recommendations on this, and I'll just skip to the next
10 section.
11 Next section is post-closure. We take the
12 position that -- INAC takes the position that a mine must
13 be planned for closure. A key issue for consideration
14 during the assessment process is whether proposed
15 development can be closed properly. If it cannot be
16 proposed properly and safely, then it should not be
17 developed. INAC's mine site reclamation policy describes
18 our overall position in greater detail.
19 There is limited information and
20 assessment of post-closure impacts, and we have several
21 concerns with respect to closure. Some are relating to
22 paste backfill leachate quality and how much it will
23 improve before it reaches Prairie Creek. We're also
24 concerned with groundwater monitoring. It's proposed to
25 mitigate against poor groundwater quality, but response

1 to poor groundwater -- poor quality groundwater is not
2 clear.
3 Seepage. We're also concerned with
4 seepage from the waste rock pile and potential metal
5 leaching. Waste rock seepage can take some time to
6 generate, and it generates poor-quality water, and cover
7 designs may be inadequate if based upon average water
8 quality or life of the mine.
9 We're also concerned about hydrocarbon
10 impacted soil and how it will be -- we recognize there's
11 going to be land farmed and that leachate will be
12 generated, but there's been no discussion of potential
13 leachate impacts to water during operation or post-
14 closure, and our recommendations on this were twofold:
15 one (1) is that post-closure water quality meet the
16 objectives that we defined through the process I'd talked
17 earlier; and the other recommendation is that there be a
18 preliminary closure reclamation plan which is developed
19 prod -- prior to the water licence, and it must be
20 developed in consultation with regulators, stakeholders,
21 and other interested parties. And we feel that our plan
22 -- that plan should be developed in accordance with
23 Aboriginal Affairs mine site reclamation guidelines or
24 any subsequent version.
25 MS. TERESA JOUDRIE: Canadian Zinc

1 proposes to use a winter road to supply the mine, as well
2 as to remove concentrate. Teresa Joudrie for Aboriginal
3 Affairs. Sorry about that. The road will be constructed
4 over sensitive terrain, and the loads will include
5 hazardous materials such as fuel, sulphuric -- and
6 sulphuric acid. The department is also of the opinion
7 that permafrost will be encountered at points along the
8 route.
9 We have concerns with several aspects of
10 the road during construction and operation, including
11 land disturbance, permafrost degradation, sediment inputs
12 post-closure, and spills. Those can be found in our
13 technical report.
14 To -- to summarize our presentation,
15 Aboriginal Affairs and Northern Development Canada is of
16 the opinion that the location of Can. Zinc's proposed
17 Prairie Creek mine presents a unique challenge for
18 balancing the economic benefits of development against
19 the need to protect special places and to uphold the
20 NWT's vision for water stewardship, which states the
21 waters of the Northwest Territories will remain clean,
22 abundant and productive for all time.
23 Effluent from the proposed development
24 will be discharged into Prairie Creek approximately 7
25 kilometres upstream of the Nahanni National Park Reserve.

1 As previously noted, this reserve has been afforded
2 special status at a national and international level as a
3 national park, a UNESCO World Heritage site, and a
4 Canadian Heritage river.
5 Considering these points, we believe that
6 the level of protection required for Prairie Creek must
7 consider and be adequate to protect -- protect conditions
8 both within the creek and downstream. Based on the
9 information reviewed to date, we are of the opinion that
10 the Prairie Creek development, as proposed, presents a
11 risk of significant adverse impacts to water. We're
12 concerned with uncertainties relating to the developer's
13 method for the development of site-specific water quality
14 objectives, the proposed water balance and water storage
15 strategy, and tailings storage. We believe that these
16 outstanding issues relate directly to assessing the
17 impacts of the proposed project on the receiving
18 environment.
19 Having these issues resolved during the EA
20 provides us with a measure of assurance that any
21 significant risks or unknowns have been adequately
22 considered, and their mitigations that may be required,
23 either through operational design or contingency plans,
24 are included as part of the Board's recommended measures.
25

1 There are a number of areas where we would
2 like to have clarity around information provided by the
3 proponent, and this will allow us to properly assess
4 risks and significance of those impacts.
5 To this end, we have undertaken to propose
6 a path forward to the Board in an effort to resolve these
7 outstanding issues and completing this within the context
8 of this environmental assessment. Doing so will allow us
9 to submit our related findings to the Board for their
10 consideration.
11 We're committed to working with interested
12 parties towards resolution of these outstanding issues
13 during the EA, and we look forward to the Board's
14 decision respecting the resolution -- or respecting our
15 process for resolving these issues. Thank you.
16 THE CHAIRPERSON: Thank you. I really
17 appreciate that you guys were able to do that in forty
18 (40) minutes, so mahsi, mahsi for that, even though that
19 there was more pages that you probably could have went
20 through, but we do have this information. It's on our
21 public registry.
22 So with that, I'm going to go immediately
23 into questions to the presenters of INAC. I'm going to
24 go to the Government of Northwest Territories.
25 MS. TERESA JOUDRIE: Mr. --

1 THE CHAIRPERSON: Any questions for --
2 sorry?
3 MS. TERESA JOUDRIE: Could I have a point
4 of order, please?
5 THE CHAIRPERSON: Yes, go ahead.
6 MS. TERESA JOUDRIE: I note that Board
7 member Hardisty's absence, and upon review of Section 112
8 of the MVRMA that the Board has maintained quorum.
9 However, we wish to confirm for the record that Mr.
10 Hardisty's absence this evening -- as a result of Mr.
11 Hardisty's absence this evening, that he will no longer
12 be involved in the -- in this environmental assessment,
13 including the decision-making process.
14 THE CHAIRPERSON: I'll go to our legal
15 counsel, Mr. John Donihee.
16 MR. JOHN DONIHEE: Thank you, Mr.
17 Chairman. It's John Donihee. Is that the position that
18 INAC is taking, or are you asking the Board to confirm
19 that?
20 MS. TERESA JOUDRIE: I'm asking the Board
21 to confirm.
22 THE CHAIRPERSON: Thank you. Mr. John
23 Donihee...?
24 MR. JOHN DONIHEE: Thank you, Mr.
25 Chairman. The Board has quorum, and given the position

1 that INAC has taken, the Board will have to decide
2 whether Mr. Hardisty can participate any further. I -- I
3 note that, you know, during the joint review panel
4 process that there was a little bit of flexibility with
5 respect to the way the -- the panel was made up when
6 circumstances like this arose.
7 Our -- our -- the reason that it's -- it's
8 a matter of some concern for the Board, of course, is
9 that Mr. Hardisty is a resident of Fort Simpson and the
10 only member of the Board from this region. But, yeah, in
11 any event, the -- the Board will proceed on the basis of
12 what the law allows.
13 THE CHAIRPERSON: Thank you, Mr. Donihee.
14 INAC...?
15 MS. TERESA JOUDRIE: Thank you.
16
17 (BRIEF PAUSE)
18
19 MR. KEVIN O'CALLAGHAN: It's Kevin
20 O'Callaghan, for Canadian Zinc.
21 THE CHAIRPERSON: Please proceed there.
22 MR. KEVIN O'CALLAGHAN: Just on that same
23 point, just to be clear, Canadian Zinc would have no
24 issue with Mr. Hardisty continuing to be involved. We
25 understand that the process that the Board undertakes to

1 come to a decision is a -- is a consensus based process,
2 and Mr. Hardisty was here for a vast majority of -- of
3 the hearing. So we would have no objection to his
4 involvement.
5 THE CHAIRPERSON: Thank you. Does INAC
6 have any objections?
7 MS. TERESA JOUDRIE: Teresa Joudrie, for
8 Aboriginal Affairs and Northern Development. No, we
9 don't have any objections. We just wanted to make sure
10 it was clear.
11 THE CHAIRPERSON: Very good. Thank you.
12 And that's noted, for the record. And I just want to --
13 I mean, those points are really good. I'm kind of glad
14 you guys brought it up. But sometimes, you know, we
15 don't have control on exactly, you know, how people feel,
16 and things do happen, and -- you know, so I just wanted
17 to point that out. So I want to say thank you for that.
18 And, okay, so, with that, I'm going to go
19 right directly into questions. I'm going to go directly
20 to the Government of Northwest Territories where there's
21 a roaming mic.
22
23 QUESTION PERIOD:
24 MR. GAVIN MORE: Thank you, Mr. Chair.
25 Gavin More, GNWT. We have no questions.

1 THE CHAIRPERSON: Thank you. I'm going
2 to go to Fisheries and Oceans Canada. Any questions for
3 INAC on their presentation?
4 MS. LORRAINE SAWDON: Hi, this is
5 Lorraine Sawdon with Fisheries and Oceans. I do have one
6 (1) question and it's to Mr. Barry Zajdlik. The Spencer
7 study has been brought up a number of times in the last
8 couple of days, and I understand that your background is
9 in study design, stats and development of monitoring
10 programs.
11 I'd be interested in knowing if you could
12 comment -- or hearing, sorry, your comments on the
13 validity and interpretation of that study and what you
14 think the relevance of the study and -- and that validity
15 and interpretation may be to this environmental
16 assessment, specifically to downstream aquatic ecosystem
17 and potential impacts.
18 THE CHAIRPERSON: Thank you for that
19 question. I'm going to go to INAC.
20 MR. BARRY ZAJDLIK: Mr. Chairman, I've
21 reviewed that study several months ago. The study was
22 conducted using a control impact approach. That means
23 that they took data, collected data immediately above the
24 -- the mine and they collected data immediately below the
25 mine.

1 That is one (1) of the recommended
2 monitoring programs in the National EEM Monitoring Guides
3 Document. It's also one (1) of the methods that's
4 advocated by INAC in the Aquatic Effects Monitoring
5 Program Guidance Document. So as a procedure and a
6 protocol for assessing environmental effects it's a sound
7 protocol.
8 Concerns were raised earlier today by the
9 -- the developer with respect to the downstream area
10 being a mineralized zone, and that may have confounded
11 the results of the interpretation.
12 So I did a little bit of investigating
13 today. I looked at the Spencer Report and I looked at
14 mercury in sediment. And Spencer et al. found that the
15 mercury in sediment was actually higher above stream than
16 it was downstream. So I don't think that that -- or
17 using that fact in conjunction with statements by
18 Hallowell and Cadeau (phonetic), who said that the
19 mineralization is comprised primarily of zinc, lead,
20 copper and silver, it's unlikely that any effects of
21 mercury due to mineralization are confounding the -- the
22 effects of this study, which is in the first place well
23 defined, or well designed.
24 So when we look at the results with
25 respect to accumulation of mercury in the slimy sculpin

1 tissues, I don't have any reason to dis -- discredit or
2 to worry about the validity of the results. I think
3 they're valid. Now we move on to the interpretation of
4 those results. The proponent maintained that
5 consultation with Monique Dube led to a statement that
6 there was no significant effect of mercury by
7 accumulation.
8 When I review the report there are
9 differences in the upstream and downstream concentrations
10 of mercury. What that means is that mercury is
11 increasing in the tissues of fish that were collected
12 downstream of the site.
13 The key -- the key concern relies or -- or
14 centres on the word "significant." Statistical
15 significance means amassing a weight of evidence that
16 overwhelms your concern, or your -- your initial position
17 that there is no difference between upstream and
18 downstream.
19 So we start out saying there's no
20 difference between upstream and downstream, let's collect
21 some data, some evidence and then let's weigh the
22 evidence. If the evidence is very, very strong, we will
23 conclude that there's a difference.
24 And there's a subjective decision as to
25 what comprises very, very strong evidence. Traditionally

1 a 95 percent level of significance has been used, but
2 other levels of significance are as valid. And in fact,
3 when we look at the mercury results for -- in - in the
4 slimy sculpins, the level of significance associated with
5 that effect is slightly less than -- or slightly higher
6 than 90 percent.
7 So we're 90 percent certain that those
8 results, given that the study is conducted properly, are
9 significant, that they're important, and that there is an
10 increase, I think, up to threefold in tissue mercury
11 downstream of the current mine.
12 THE CHAIRPERSON: Thank you for that
13 response. I'm going to go back to Fisheries and Oceans
14 Canada. Any further comments? I'm sorry, any further
15 questions?
16 MS. LORRAINE SAWDON: Thank you. No, Mr.
17 Chair, no further questions.
18 THE CHAIRPERSON: Thank you. I'm going
19 to go to the Nahanni Butte Dene Band. Any questions for
20 Indian and Northern Affairs Canada on their presentation?
21 MR. PETER REDVERS: Peter Redvers,
22 representing the Naha Dehe Dene Band. And, as I had
23 mentioned earlier, after Canadian Zinc's presentation,
24 there are some broad questions that I would ask
25 Aboriginal Affairs Northern Development to respond to,

1 but also given that we forewent -- or didn't ask
2 questions of Canadian Zinc at the time, that they also be
3 given an opportunity to respond if that's the situation.
4 Just before getting into the questions
5 though, just for clarification on -- there was an
6 amended, slightly amended or qualified comments to the
7 recommendations that had been posted as a part of the
8 June 15th summary text for the Naha Dehe Dene Band's
9 presentation to this public hearing. And I just thought
10 I'd note those because I'm -- I'm not sure all of the
11 AANDC personnel were informed of those.
12 Certainly in Recommendation number 1 there
13 had been the reference to the band requiring --
14 recommending that Canadian Zinc enhance its water
15 treatment plant such that it can meet EQC's most
16 provective -- most protective of the aquatic environment.
17
18 And then there was a statement below that,
19 that if that couldn't be achieved, that there -- that the
20 registry remain open until there is consensus between
21 Canadian Zinc and the regulatory and responsible
22 authorities regarding the water quality management system
23 and cri -- criteria such that minimal changes to water
24 quality and aquatic environment would be assured.
25 And there was a point added at the

1 community hearing, for clarity, that the Naha Dehe Dene
2 Band has determined that it will accept water quality
3 criteria that strikes a reasonable balance between the
4 criteria prose by -- proposed by Canadian Zinc and the
5 criteria proposed by responsible government departments
6 where these criteria differ.
7 And then, furthermore, on Recommendation 4
8 the original wording was that:
9 "Nahanni recommends as a component of
10 its Recommendation 1 that particular
11 attention be paid to reducing the
12 presence of mercury and other elements
13 in the mine effluent known to
14 bioaccumuate or bioconcentrate..." And
15 here's where the change was. The
16 original is:
17 "...such that levels of these elements
18 do not exceed existing levels in
19 Prairie Creek at all times."
20 And it was modified to read:
21 "...such that these levels do not
22 exceed levels that can cause short or
23 long-term harm to the aquatic
24 environment."
25 So I just wanted to make sure that was on

1 the record.
2 And again, I can't remember whether I made
3 that comment already this morning. With respect to the
4 aboriginal fishery at the -- the grayling pools at the
5 mouth of the Prairie Creek that were identified by Elders
6 and harvesters during the TK assessment that were carried
7 out, the particular concern on that was relating to
8 potential accumulation or bioaccumulation of -- of
9 mercury or other toxics that might float down and -- so
10 those, in fact, would be addressed as a part of the
11 establishment of the site-specific water quality
12 objectives, so -- and -- and would form part of that.
13
14 So having said that, the -- for those of
15 you that weren't at the Community hearing, there was a
16 fairly clear message again, and the clear message was
17 that the Community would like and wanted the project to
18 move ahead and, at the same time, wanted to ensure that
19 the water, particularly water quality, was protected, so
20 it's quite a challenge. And you spoke to the balance of
21 the economics and the issue of environmental protection.
22 And the other message that was given by
23 Community members, and also by the Chief, was that the --
24 one (1) -- in one (1) of the key issues is the issue of
25 water quality, and the Community wanted the parties to --

1 to deal with this and wanted to find ways to reach some
2 kind of agreement or resolution of this issue so that
3 there is some de -- there is assurance that the -- that
4 the effects are reasonable. And nobody doubts that there
5 will be -- that there won't -- you know, there will be
6 effects, that they are reasonable and they're acceptable,
7 they -- they're defined, and that they're acceptable to
8 the community.
9 So with that, you know, hearing the
10 different presentations, I would just like to get some
11 clarify, I guess, from -- from both AANDC and also from
12 Canadian Zinc on your assessment of the degree of the --
13 of the differences. I think the nature of the
14 differences is obvious, but the degree of the differences
15 that exist, and the significance of the differences with
16 -- in relation to the -- the desired outcome, first of
17 all, and one is certainly being most protective, which is
18 minimal change based on the reference condition approach,
19 and the concept of achieving CCME or addressing the water
20 quality from a toxicity perspective. Those are
21 principled positions and -- and we need some -- want some
22 clarification on how extensive and significant that is
23 going to be to resolve.
24 The second part relates to, regardless of
25 what is accepted, whether or not and the degree to which

1 the information exists to be able to establish the site-
2 specific water quality objectives, and what work would
3 need to be done to get the information to -- to be able
4 to do that, depending on -- on how the first matter is
5 resolved.
6 There is some difference in the assessment
7 of the ability of the proposed water quality management
8 system to actually achieve the objectives on a regular,
9 ongoing basis without unreasonable risk, and there
10 appears to be some differences on interpretation and
11 assessment of the ability of the monitoring system to be
12 able to properly monitor and react and respond to
13 problems in a -- in a timely manner. So these are all
14 fairly significant issues.
15 And in reference to those, I guess the
16 question becomes -- because, resolving that, there sounds
17 like there is going to need to be information, some
18 information generated, so I need some sense of what that
19 is. There's going to need to be a process of
20 discussions, and then there'll need to be some form of
21 decision-making process.
22 And from the Naha Dehe Dene Band
23 perspective, I would like to get some clarity from both
24 parties as to the extent of that process, as you
25 understand it, and also the -- the timing of the

1 different things that need to be done so there's some
2 sense of when this matter can be reasonably addressed, on
3 the assumption that there is -- and the expectation, I
4 think, from the Community that there is going to be some
5 movement on both sides, and that neither party is going
6 to dig a trench and -- and stay there, that there -- that
7 there needs to be some -- some mutual movement and -- and
8 some reasonable resolution.
9 So if I could perhaps ask ANAN -- AANDC to
10 respond to that, that big, long question with little
11 components, and then also ask Canadian Zinc to respond to
12 that.
13 THE CHAIRPERSON: Thank you. Before we
14 go to both of these, I'll just come back to your
15 question. I'm going to ask that we take a look at our
16 questions, if we could limit them. We could also
17 prioritize them. I'm going to ask for that, because
18 we're coming to the end here.
19 Right now, the way this -- the process is
20 set up, the parties or individuals could question each
21 another in terms of their presentation. So I'm going to
22 get INAC to respond to that, and I guess I want to
23 suggest to Canadian Zinc that you could respond by
24 preferring to do it in either your closing comments or
25 something like that, because right now I'm -- I'm not

1 going to get into any debates. I just want to make sure
2 that you have an opportunity to put a question forward,
3 so we're going to follow through on that. So I want to
4 go to INAC. Okay?
5 MR. PETER REDVERS: That's good. Peter -
6 - Peter Redvers. I -- I'm -- I'm not asking for a
7 debate, just for clarification. I would ask that they
8 would respond directly, and it is a direct response to
9 the question, and -- and not talking to each other, and I
10 -- I'm hoping it might provide some clarification for the
11 Board, as well, as to what it is that's being proposed.
12 And it really -- I don't -- don't have any
13 further questions, unless there's some small questions of
14 clarification. And we did -- the Naha Dehe Dene Band did
15 relinquish its presentation time, so I -- I would hope
16 that there's some time to be able to get a response to
17 this. Mahsi.
18 THE CHAIRPERSON: Okay. Thank you.
19 Okay. Thank you. Like I said, I'm going to go to INAC,
20 and it's entirely up to IN -- sorry, Canadian Zinc to --
21 to add that in their closing comments or to respond to
22 that anyway.
23 Okay. So I'm going to go to INAC and to
24 those comments and questions.
25 MR. ROBERT JENKINS: Thank you, Mr.

1 Chair. It's Robert Jenkins with Aboriginal Affairs. In
2 our presentation, and this is a -- a good question. We
3 understand that there's -- there's still some details
4 which -- which need to be resolved. And some of the
5 things that we did say that do need to be done before the
6 EA is to get input from the parties regarding on limits
7 of change for -- for parameters, you know, which -- which
8 could not be reasonably met using the RCA approach. And
9 as well then to develop a process -- to develop
10 objectives that would demonstrably achieve that desired
11 level of protection.
12 So I don't -- I don't know if I could give
13 to you much insight on -- on -- on the whole process.
14 Again, we're still -- we're going to have a discussion
15 here in the near future, but we would be willing to -- to
16 undertake something to provide, you know, details on sort
17 of that -- what we envision that process going forward,
18 including timing for the -- for the Board and for its
19 approval.
20 MS. TERESA JOUDRIE: Teresa Joudrie for
21 Aboriginal Affairs. If I could just add, it would appear
22 that we're coming closer together over the last while
23 than farther apart, so that's promising.
24 THE CHAIRPERSON: Okay. Thank you. I'll
25 go back to -- did you have any further questions?

1 MR. PETER REDVERS: Peter Redvers, Naha
2 Dehe Dene Band. I guess I'll be more specific then, is
3 there additional research that is required, field
4 research that is required in -- in -- in your
5 considerations? What type of research and how extensive
6 would that be, particularly relating to some of the
7 baseline or background conditions?
8 THE CHAIRPERSON: Okay. Thank you. I'm
9 going to go to INAC.
10
11 (BRIEF PAUSE)
12
13 MR. ROBERT JENKINS: It's Robert Jenkins
14 with Aboriginal Affairs. We really have to take a review
15 of -- of the information that they have to see how
16 extensive or what other, you know, information that we'd
17 require the Company to -- to do and we'd like -- we'd
18 like to have that discussion with them as well.
19 So I -- I -- and, you know, I -- I think
20 as well that -- that there's sort of a concern on the
21 timing aspect with that. And we -- we recognize and we
22 did acknowledge in our presentation we expect that there
23 would be some decisions made in the context of the EA and
24 then some beyond. So -- so there -- there would probably
25 be an opportunity for some of that monitoring, you know,

1 following that process.
2 THE CHAIRPERSON: Okay. So, Peter
3 Redvers, does that help clarify your question?
4 MR. PETER REDVERS: Peter Redvers, Naha
5 Dehe Dene Band. I guess the -- the concern is that --
6 that somehow this is left as of today, which is the
7 closing of the public hearing, somewhat open-ended. And
8 if the community, which they will do, ask me, you know,
9 what kind of timeline are we looking at, and -- and --
10 and what is the outcome of that, and it's sort of this
11 broader open kind of a -- a time period, I'm not sure the
12 -- the community is going to be entirely comfortable with
13 that.
14 So I would -- I would hope that there
15 would -- would have been something more specific. Now
16 having said that, if you wish to respond to that, fine,
17 and then I -- I -- if Canadian Zinc is willing to also
18 respond and comment, we would be open to that. I'll just
19 wait for the Chair to return.
20 THE CHAIRPERSON: Okay. Thank you,
21 Peter. And I think your -- your comments are duly noted.
22 If that concludes your question I'm going to go to Parks
23 Canada. But before we do that I want to take a ten (10)
24 minute break. We'll have a quick caucus and then we'll
25 come back.

1 So we'll take a ten (10) minute break.
2
3 --- Upon recessing at 7:14 p.m.
4 --- Upon resuming at 7:29 p.m.
5
6 THE CHAIRPERSON: Okay, we've got
7 everybody here, we'll continue on questioning. I guess I
8 left off with the Nahanni Butte Dene Band.
9 Mr. Redvers, did you have any more
10 questions or are you done with your questioning?
11 MR. PETER REDVERS: Peter Redvers. Yeah,
12 I had just thought that the Canadian Zinc might also
13 choose to respond to that. That was my understanding,
14 but I believe, David, that you're -- will speak to it
15 later on as opposed to at this moment so that it's -- so
16 we can go ahead and you can proceed with the questions
17 from other parties for now.
18 THE CHAIRPERSON: Thank you, Mr. Redvers.
19 I want to go to Parks Canada. Any questions to INAC on
20 their presentation?
21 MS. KATHERINE CUMMING: Katherine
22 Cumming. I have one (1) question.
23 There is an undertaking to provide
24 information with respect to tailings management that was
25 put forward yesterday. Does that meet the requirements

1 of your recommendations on tailings and, if so, would you
2 like time to review and respond to that undertaking?
3 THE CHAIRPERSON: Thank you. I'm going
4 to go to INAC.
5 MR. ROBERT JENKINS: Thank you, Mr.
6 Chair. It's Robert Jenkins. I think that, Katherine,
7 you're referring to the undertaking on additional
8 information on paste backfill and -- in the underground.
9 We -- we look forward to receiving that and we -- we will
10 provide a review of it. We would like the opportunity to
11 comment back on it. It's difficult to say if it resolves
12 our issues right now because we -- we -- we haven't
13 reviewed that information. So -- so I guess stay tuned
14 on that one.
15 THE CHAIRPERSON: Okay, thank you. I'll
16 go back to Parks Canada. Any further questions?
17 MS. KATHERINE CUMMING: No further
18 questions, thank you. Katherine Cumming.
19 THE CHAIRPERSON: Thank you. I'm going
20 to go to the Dehcho First Nation.
21 MR. JOE ACORN: I just wanted to say, I
22 was speaking with the Grand Chief yesterday. He wanted
23 me to make it clear and to make it clear that this
24 message, even though I'm delivering it it's coming from
25 him, that where this project is situated demands the

1 highest levels of environmental protection. And, in
2 keeping with that, DFN supports and endorses the
3 recommendations put forward by DIAND in these -- in your
4 technical report.
5 Now, along that line, something that --
6 what we -- one (1) of your comments there, I wasn't sure
7 if I completely agree with it because -- what you did do
8 is you referred to your proposed approach there, which is
9 the reference condition approach at a end of a mixing
10 zone as the higher -- highest standard of environmental
11 protection. And I take a little bit of issue with that.
12 I think the higher standard of
13 environmental protection would be to meet the RCA at the
14 end-of-pipe discharge location. In a way, INA -- DIAND
15 has already compromised somewhat from the highest level
16 of protection that you could apply to the project, so we
17 wouldn't want to be see you do too much more compromises
18 on this thing.
19 The other point I wanted to make was that
20 if the reference condition approach can't be met, the
21 first option has to be evaluating how to improve the
22 treatment process for the end-of-pipe discharge, not
23 looking at increasing the reference case -- reference
24 condition so that in -- Canadian Zinc can meet some
25 higher standard farther down -- perhaps farther down the

1 creek. The first option has to be improving the
2 treatment process. Whether Canadian Zinc wants to do
3 that or not, it doesn't really influence that position.
4 That's the first option that has to be evaluated.
5 And I guess my one (1) question is that
6 you did recommend that the Harrison Creek discharge only
7 be allowed to happen if it's a Mackenzie Valley Land and
8 Water Board approved emergency. I'm wondering about your
9 suggestion about the 1 metre freeboard around the dike.
10 Would that also be something that you would consider only
11 under the Mackenzie Valley Land and Water Board approved
12 emergency situation?
13 THE CHAIRPERSON: Thank you. I'm going
14 to go to Indian and Northern Affairs Canada.
15
16 (BRIEF PAUSE)
17
18 MR. ROBERT JENKINS: It's Robert Jenkins,
19 with Aboriginal Affairs. I'm -- I'm not sure if the two
20 (2) would be considered exactly the same in the -- in the
21 sense that the 1 metre freeboard would be reserved for
22 emergency situations. Se -- so when you would cross that
23 line you'd be -- you would be considered in a situation
24 where you need to rectify something but you would have
25 some contingency.

1 And -- and our recommendation was to -- to
2 ensure that that's designed and -- and that the -- the
3 contingency's available so that you -- it only happens in
4 emergency situations and not for project upsets.
5 The Harrison Creek example would be, I
6 guess, if discharge were to go into Harrison Creek we'd
7 consider that an emergency situation that -- that would
8 need to be rectified on an immediate basis. The same
9 would be said for the -- for the -- within the pond, but
10 you -- you would have some -- some time. It's obviously
11 a very important situation, but I -- I don't know if they
12 would be on the exact same -- if they could be compared
13 as apples and apples.
14 THE CHAIRPERSON: Thank you. I'm going
15 to go back to Dehcho First Nation, Joe Acorn.
16 MR. JOE ACORN: Joe Acorn. I don't have
17 any more questions. I just wanted to express DFN's
18 appreciate for the effort DIAND has put in and the high
19 standard to which you're attempting to hold this project
20 and simply say that we expect you to continue to try to
21 apply that high standard.
22 THE CHAIRPERSON: Thank you, Mr. Joe
23 Acorn. I'm going to go to Environment Canada. Any
24 questions for Indian Northern Affairs Canada?
25 MS. ANNE WILSON: Thanks. It's Anne

1 Wilson, Environment Canada. I have one (1) question of
2 clarification for John Brodie. Can you outline the
3 difference in the numbers that you used for calculating
4 the capacity of tailings in DMS which differed from the
5 numbers that the Company had provided?
6 THE CHAIRPERSON: Thank you. Indian
7 Northern Affairs Canada...?
8 MR. JOHN BRODIE: It's John Brodie
9 speaking. Just to clarify your question, I think you're
10 referring to the 11 percent and 7 percent removal of
11 material and the quantity of tailings that's left over,
12 as I presented in my comments earlier, versus the pie
13 chart of -- of 50 percent, 24 percent, and 26 percent
14 breakdown, which was in the Company's presentation
15 yesterday.
16 And I believe the difference is due to the
17 fact that the calculations which I presented were based
18 on the volume breakdown, or distribution of the
19 materials, as it was -- because those calculations were
20 done to determine the backfilling of the mine capacity.
21 I believe the Company's numbers were done on a weight
22 basis.
23 THE CHAIRPERSON: Thank you. I'm going
24 to go back to Environment Canada. Do you have any
25 further questions for Indian and Northern Affairs Canada?

1 MS. ANNE WILSON: Anne Wilson. No
2 further questions, thank you.
3 THE CHAIRPERSON: Okay. Thank you. I'm
4 going to go over to Natural Resources Canada. Any
5 questions for Indian and Northern Affairs Canada on their
6 presentation?
7 MR. FONS SCHELLEKENS: Fons Schellekens,
8 Natural Resources Canada. Natural Resources Canada
9 doesn't have questions for Indian and Northern Affairs.
10 THE CHAIRPERSON: Thank you. I want to
11 go to Transport Canada. Is there any questions for
12 Indian and Northern Affairs Canada on their presentation?
13 MR. CHRIS AGUIRRE: Chris Aguirre.
14 Transport Canada has no questions.
15 THE CHAIRPERSON: Thank you. I want to
16 go to Liidlii Kue First Nation. Is anybody here that
17 have questions for Indian and Northern Affairs Canada?
18 MR. JONAS ANTOINE: Jonas Antoine.
19 Kiidlii Kue First Nation has no questions.
20 THE CHAIRPERSON: Thank you. Mahsi. I
21 want to go to Canadian Zinc Corporation. Any questions
22 for Indian and Northern Affairs Canada?
23 MR. DAVID HARPLEY: Mr. Chairman,
24 actually, I have a question for the Board first.
25 Obviously, we could have a significant number of

1 questions, but we can limit them if we have an
2 opportunity to place some responses on the record, on the
3 file, at some point. So if you can give us some
4 direction that we will be able to do that, then we can
5 limit our questions.
6 THE CHAIRPERSON: I'll -- I'll turn this
7 one over to our legal counsel, Mr. John Donihee.
8 MR. JOHN DONIHEE: John Donihee, Board
9 counsel. Mr. Chairman, the record will stay open. There
10 are undertakings to be filed and transcripts as well, and
11 it's still a question of -- of when final submissions
12 will be made. But as long as we can make arrangements to
13 get these responses on the record in advance of the
14 requirement for final submissions, then INAC should have
15 a chance to respond to them and any argument that they
16 file at the end of the day. So I suggest, if Canadian
17 Zinc can file some responses and save us some time, that
18 that's -- that's an acceptable way to proceed.
19 THE CHAIRPERSON: Thank you. We'll go
20 back to Canadian Zinc Corporation.
21 MR. DAVID HARPLEY: David Harpley. I --
22 I do need to clarify that point. This is not just INAC
23 specific, it has really to do with all of the
24 presentations. You can appreciate that really this is
25 the -- the first opportunity we've had to respond to the

1 technical reports, and we're not really able to fully
2 respond in this kind of a forum. So we would like the
3 opportunity, and I do want to make that request now, to
4 respond to all of the technical reports, so you have a
5 full appreciation of -- from us which recommendations
6 we're comfortable with and which we would suggest
7 modifications to.
8 THE CHAIRPERSON: I'll go back to Mr.
9 John Donihee.
10 MR. JOHN DONIHEE: Thank you, Mr.
11 Chairman. John Donihee. I -- you know, I don't -- don't
12 think it matters whether just DIAND. The -- the
13 description of the process going forward that I just gave
14 applies to everyone, so I -- I don't think that -- that
15 there should be an issue, Mr. Chairman.
16 THE CHAIRPERSON: Okay. Thank you.
17 We're going back to Canadian Zinc.
18 MR. DAVID HARPLEY: Okay. David Harpley.
19 Thank you. So I'll try and keep this as brief as
20 possible, but we obviously do want to respond to some of
21 the key arguments in AANDC's presentation. You'll
22 remember that their presentation started with water
23 quality, and there were three (3) specific issues that
24 they raised with respect to water quality. And I assume
25 that those issues are core to their conclusion of high

1 risk of significant impact.
2 So I want to try and address those through
3 issues -- three (3) issues in as brief time as possible,
4 but I want to start with the -- the second and third
5 ones, and then come back to the first one.
6 The second issue has to do with water
7 storage, and it's AANDC's contention that -- basically,
8 that we don't have enough because of water quality
9 issues, recycling upsets, and another -- a number of
10 other constraints.
11 It's our feeling and, obviously, we've --
12 we've developed the balances and we've thought about the
13 internal workings of the operation, but it's our feeling
14 that the magnitude of upsets has been overestimated
15 because of the amount of contingency and redundancy we
16 believe we'll have in the system.
17 So, we feel this really comes down to
18 discharge strategy and -- and that kind of a management.
19 And it's our position at this point that if we were to
20 obtain the objectives for discharge that we've proposed,
21 and if we are given the flexibility to discharge the
22 water according to flows in the creek -- in other words,
23 to vary the discharge to meet those objectives without
24 much restriction -- we believe we have enough storage.
25 If, however, the objectives are lowered or

1 constraints are put on our discharge, then we will not
2 have enough storage and, at that point, we would have to
3 consider additional storage options. And those could
4 range from justifying, on a geotechnical basis, a lower
5 water level in the pond or, similarly, justifying
6 increased size of dikes of the existing pond to store
7 more water or even consideration of a second pond
8 altogether to create additional storage. So, on the
9 storage aspect, we feel it's kind of a matter of opinion
10 and debate, and we're not sure that's a significant
11 reason.
12 The other -- the third issue has to do
13 with tailings. I don't want to go back over the tailings
14 issue again except to reiterate that we feel very
15 confident that we've estimated it correctly and it will
16 all go underground.
17 But just to make the point that although
18 we're very confident that's the case, there is a
19 relatively simple and straightforward fallback position
20 if, for some strange reason, that was not to happen, and
21 that is to take the paste up the hill and place it in the
22 waste rock pile.
23 Because from a geotech -- chemical
24 perspective and from a containment perspective, there's
25 really not a lot of difference between placing paste

1 underground as backfill or placing it within the waste
2 rock pile to be covered on closure. A lot of operations
3 around the world do surface disposal of paste, so we're
4 not breaking any new ground here.
5 So what I'm driving at is that, really,
6 from our perspective, options or issues 2 and 3 fall away
7 and we come back to the first one which is essentially
8 the objectives. And the -- the issues on the objectives
9 -- it has two (2) points on page 6 of INAC's report. And
10 their conclusion is that our approach to setting the
11 objectives is flawed. And the second component of that
12 talks about developing the discharge limits based on
13 them.
14 And you may remember that we submitted,
15 quite late in the process, our last submission on May
16 22nd was this load limit idea of constraining the
17 discharge. So we tried to address the discharge side of
18 things, so, again, we really just come back to
19 objectives.
20 So, after a long-winded speech here, my
21 question to INAC is: Given we have addressed these other
22 issues and the -- the discharge question, would they now
23 not agree that we've really boiled this down to a
24 disagreement on objectives, and -- and that really is all
25 that's left in terms of their main considerations and

1 concerns with respect to their conclusion of significant
2 effects?
3 THE CHAIRPERSON: Okay, I'll go to Indian
4 and Northern Affairs Canada.
5
6 (BRIEF PAUSE)
7
8 MR. ROBERT JENKINS: Thank you, Mr.
9 Chair. It's Robert Jenkins with Aboriginal Affairs.
10 There's quite a bit in -- in that. So -- so if I fail to
11 capture all of it in my response then feel free to follow
12 up.
13 I agree that we need to resolve the issues
14 on site specific water quality objectives. We're
15 committed to that and we look forward to working with the
16 Company in that regard.
17 We've not critically reviewed the loading
18 issue. That is an issue that would come in the licensing
19 phase, but it is an important aspect in achieving and --
20 and looking at different options in achieving objectives.
21 So I wouldn't say that at this point in time it is
22 unresolved, but I wouldn't say that it is resolved.
23 We have not critically reviewed the
24 additional tailings information. So at this point in time
25 that issue is still unresolved.

1 The water storage issue, again, there's a
2 mention of increasing water storage. That again, is an
3 important aspect in achieving effluent quality criteria
4 and downstream site specific water quality objectives.
5 We haven't critically reviewed any information on
6 evaluations of increasing the capacity of the storage
7 pond.
8 So I would say at this point in time these
9 issues do remain outstanding, but we do look forward to
10 the opportunity to provide comments on any additional
11 information.
12 THE CHAIRPERSON: I'll go back to
13 Canadian Zinc.
14 MR. DAVID HARPLEY: Thank you. It's Dave
15 Harpley. So now I just wanted to pursue the objectives
16 issue a little more. And -- and before I turn it over to
17 John to discuss the development process of them, one (1)
18 question I do want to ask is I think it would be useful
19 for everybody, and I'm assuming the Board also, if you
20 could give some background as to how the RCA approach has
21 been used elsewhere, particularly operations in the
22 north.
23 And people have said that the process has
24 been around for a long time, but I've -- I've not heard
25 anybody discuss whether it's been used for specific mines

1 and whether it's been used for parameters for setting
2 objectives across the board for specific mines, both
3 generally in Canada and in the north. And I think that -
4 - that kind of information will probably be welcomed by
5 the larger audience here.
6 THE CHAIRPERSON: Thank you. Indian and
7 Northern Affairs Canada...?
8
9 (BRIEF PAUSE)
10
11 THE CHAIRPERSON: Maybe while Indian
12 Affairs figure out who's going to be responding here, one
13 (1) question. I have a question for you, is how many
14 more questions you got?
15 MR. DAVID HARPLEY: We can probably limit
16 it to one (1) more very long question.
17 THE CHAIRPERSON: How about one (1)
18 medium question. I'll go back to Indian Northern Affairs
19 Canada.
20
21 (BRIEF PAUSE)
22
23 MR. ROBERT JENKINS: Thank you, Mr.
24 Chair. Thank you for your patience. It's Robert
25 Jenkins, with Aboriginal Affairs. We haven't done an

1 extensive review of -- of where this approach has been
2 used in mines across Canada or around the world. It --
3 the concept has been around for a while. I agree with
4 Anne, it has -- hasn't been used extensively in the
5 north, and I can't say I know an example offhand that
6 follows the strict reference condition approach, which
7 would be that effluent quality criteria would meet the
8 reference condition.
9 I would like to highlight that that's not
10 what INAC is recommending at this point in time. We do
11 feel that the process that we've requested as a -- using
12 the reference condition as a departure point, a starting
13 point, is reasonable. It's consistent with current
14 policies, government strategies on water. It's
15 consistent with the philosophy of the NWT water strategy.
16 It will ensure that the ecological integrity downstream
17 of the mine will remain intact. So we do feel that it is
18 appropriate as a starting point and a departure point.
19 But, as I mentioned, we do recognize that
20 we may be in a situation where this could not, for all
21 water quality parameters, be reasonably and ju -- and
22 justifiably met, and this is why we proposed a process
23 forward with the Company with the input from parties to
24 the EA to resolve this issue within the context of EA.
25 THE CHAIRPERSON: Okay, I'll go back to

1 Canadian Zinc for your final question.
2 MR. DAVID HARPLEY: A quick comment and
3 then I'm going to pass it over to John. I guess what I
4 heard then is that RCA has not been used for mines to
5 this point, so we're breaking new ground.
6 And my comment is that from our
7 perspective, yes, it's true that we have tried to use RCA
8 when we started off our process of consideration of
9 objectives, but then the -- then the parameters and the
10 consideration of the database took over and we had to
11 start making some modifications to our approach.
12 And really, it was only when we received
13 INAC's -- Anne's -- technical report did we, for the
14 first time, learn that we are being asked to meet them
15 across the board as a starting point, and you can imagine
16 that causes great discomfort and still does.
17 So just with that, I'll pass it over to
18 John just to talk about objectives in a more general
19 fashion.
20 THE CHAIRPERSON: Yes?
21 MS. TERESA JOUDRIE: Mr. Chair, if I may?
22 Teresa Joudrie for Aboriginal Affairs and Northern
23 Development.
24 I do not think it would be fair to state
25 that this has never been used in a mine operation as we

1 have not conducted an es -- an extensive study to see
2 whether it has been used or not. It has been proposed in
3 some cases, but I do not think it would be fair in your
4 statement to say that it's never been used.
5 THE CHAIRPERSON: Okay, thank you. I'll
6 go back to Canadian Zinc.
7 MR. JOHN WILCOCKSON: Mr. Chair, John
8 Wilcockson, Hatfield Consultants.
9 I feel that Barry gave a very good summary
10 of CCME. However, there is a few things that I think
11 that he left out that should be stated, and I'll come up
12 with a question at the very end of this.
13 With regard to mercury, I've done a -- a -
14 - quite an extensive literature review as part of this
15 project on mercury bio-accumulation into fish. And the
16 overwhelming message from those papers was that bio-
17 accumulation is generally a problem when you have
18 methylation. You have bacterial activity changing the
19 mercury into a methylated state so that carbon has been
20 added to it. It makes it much more bio-available and
21 more bio-cumulative.
22 Those papers also stated that where those
23 -- where this methylation occurred was in cases where you
24 would have slow moving water, it would be warm, there
25 would be soft sediment with organic material in it. In

1 this case, for Prairie Creek, we don't have these. This
2 is a very cold stream, it's moving quickly, it's well
3 aerated. Generally, the smallest size of material on the
4 bottom is -- is -- is fine gravel. We're not talking
5 about fine material like clay or -- or silt.
6 So what I would like to -- the first part
7 of my question, not to be answered just yet, is: Does
8 Indian Affairs know of any circumstance where there has
9 been a quick-moving stream, maybe similar to Prairie
10 Creek, where there has been a mercury accumulation
11 problem and a concern for human health or eating fish?
12 The second part of my question -- I
13 actually just wanted to say something else about the
14 Spencer paper. There's potentially another explanation
15 as to why fish have higher concentration downstream and
16 it hasn't been stated yet, and this is something else I'd
17 like Indian Affairs to comment on. And that is the fish
18 downstream tend to have a higher condition. They've been
19 eating more, they're bigger, they're fatter. This --
20 this is one (1) of the factors that can lead to higher
21 concentrations in fish tissue: the fish eat more, they
22 accumulate more.
23 The next part of my question is -- using
24 CCME in cases where you have multiple contaminants, where
25 they may be exceeding the CCME criteria. I've been a

1 consultant for twelve (12) years, and I've been using the
2 CCME generally as the most protective toxicity benchmark.
3 Generally, I'm trying to find a reason why the CCME
4 shouldn't be used, and why we should be using a higher
5 one. So this is actually a first for me.
6 And in most of those cases, or -- or at
7 least many of those cases, we're talking about many
8 contaminants. We're not just talking about a single
9 contaminant being conceded -- exceeded, and the
10 exceedances are generally not -- I -- sorry. If -- if
11 we're below the CCME and there's multiple contaminants,
12 we're not concerned generally because we acknowledge that
13 there's a safety factor built into the CCME.
14 The next part of the question is about
15 non-representative organisms and keystone species. The
16 paper by Spencer has provided a list of common benthic
17 micro-invertebrates or macro-invertebrates found in the
18 stream in -- in Prairie Creek, and a large number of
19 those are mayflies, caddisflies, and -- and stoneflies.
20 These are species of invertebrates that are often the
21 base of important food for fish, an important part of
22 food chains, and they also tend to be very sensitive
23 organisms to chemical exposure.
24 What we did when we reviewed the CCME, not
25 only did we provide the CCME as an alternative to the

1 RCA, but we also showed that the CCME should be
2 protective for Prairie Creek. And what we did is, we
3 tried to find data, toxicity data, on organisms that
4 would likely be found in the creek, so we were able to
5 find a lot of fish species that were specific to fish
6 species found in the creek, bull trout being one (1) of
7 them. But we were also able to find toxicity data on
8 mayflies and caddisflies and stoneflies.
9 The final part of my question about some
10 missing information is, there's a few sections of the
11 CCME that have not been brought to light. One (1) of
12 these talks about the application of the reference
13 condition approach, and it says -- this is -- this is a
14 CCME site-specific guidance document, and it says:
15 "Implementation of this approach
16 ensures environmental receptors are not
17 exposed to elevated levels of
18 environmental contaminants and, hence,
19 have no incremental risk of adverse
20 effects due to discharge -- discharges
21 from point sources. However,
22 technological limitations and costs are
23 likely to preclude the implementation
24 of this option under most
25 circumstances."

1 The second quote that I'd like to read
2 aloud is the following:
3 "Generic water quality guidelines
4 should be adopted as water quality
5 objectives at all sites, unless the
6 generic water quality objective for a
7 substance is lower than the upper limit
8 of background at the site under
9 investigation."
10 And the upper limit of background would be
11 the RCA-calculated objective.
12 So I guess my question is why Indian
13 Affairs has not accounted for these factors in their
14 presentation. Thank you.
15 THE CHAIRPERSON: Thank you. Yeah, that
16 was a long question. It's also a long day. Okay, I want
17 to go to Indian and Northern Affairs Canada.
18
19 (BRIEF PAUSE)
20
21 MS. TERESA JOUDRIE: Mr. Chair, Teresa
22 Joudrie for Aboriginal Affairs and Northern Development.
23 There was a lot of narrative there and we
24 would actually like a summary of what the question is,
25 because it's actually not clear what -- with statements -

1 - of multi-parts of statements versus the question.
2 Thank you.
3 THE CHAIRPERSON: Thank you. I'll go
4 back to Canadian Zinc to summarize your question.
5 MR. DAVID HARPLEY: It's Dave Harpley.
6 I'll have a shot at summarizing it.
7 I think John said there are traditional
8 ways of calculating methylation of mercury and, given the
9 parameters that he listed, why was that not considered in
10 terms of assessing or at least reflecting on our
11 assessment which included those, to come up with a
12 conclusion that accumulation of mercury is unlikely in
13 this environment.
14 I also heard him say that in terms of the
15 CCME guidance, there's an indication of the fact that you
16 should start with a generic objective first and only use
17 background where that objective is lower than the upper
18 limit. So, in other words, it's suggesting that it's the
19 reverse of what AANDC is suggesting.
20 On the keystone question, I think he was
21 saying that we -- as far as toxicity is concerned, we
22 covered just about everything that we know to exist in
23 the system and we accounted for that in terms of
24 toxicity. So I guess you can't say for sure which of the
25 key -- is one (1) -- is the keystone species, but

1 whichever it is, we've probably nailed it, so that really
2 -- really shouldn't be a -- a concern.
3 Did I miss anything? That's -- that's
4 probably most of it.
5 THE CHAIRPERSON: Okay, thank you for
6 that summary. We'll go back to Indian and Northern
7 Affairs Canada.
8 MR. BARRY ZAJDLIK: Mr. Chair, I wrote
9 down seven (7) questions that I heard the developer pose
10 and, so, I'll -- I'll try and answer all seven (7) right
11 now.
12 The first question had to do with mercury
13 biomagnification. I think the comment was that there was
14 a -- an extensive literature review done of the factors
15 that contribute to mercury bio-accumulation and a
16 challenge to find a study that showed substantive mercury
17 biomagnification in a cold-water, fast-moving stream.
18 Is that a -- a correct summary of that
19 question?
20 MR. JOHN WILCOCKSON: Yes.
21 MR. BARRY ZAJDLIK: Okay, it's true that
22 I have not conducted a review of mercury biomagnification
23 in a small fast-flowing northern stream. Mercury
24 biomagnification is a bit like an insect that's buzzing
25 around your head while -- while you're giving a talk and

1 you're waiting for it to come back and bite you. Mercury
2 biomagnification can occur, and has occurred, in the
3 North when nobody thought it was going to occur. And the
4 case in point is in Lac de Gras with Diavik Diamond
5 Mines.
6 One (1) of the contributing factors to
7 mercury biomagnification is, as John correctly noted, the
8 methylation rate. Methylation has to do with bacteria
9 attaching a molecule to mercury and that attachment
10 allows it to move into organisms much more easily than it
11 would in just -- as just pure mercury. So, there are
12 factors which influence methylation rates -- the rates at
13 which this happens -- and it is correct that they are
14 slower in cold water and under certain conditions like
15 the oxygen conditions and sediment sizes.
16 But it's also true that methylation rates
17 increase when the trophic status of a water body
18 increases. What that means is that, as nutrients are
19 poured into a system and the animals become -- or the --
20 the system becomes enriched because of the nutrients, the
21 methylations rate can increase. And what happens then is
22 you start seeing increases in biomagnification.
23 So it's true that there is -- there are
24 reasons to not be frantic about mercury biomagnification,
25 but there's als -- it's also true that we can't dismiss

1 it at this point. And that's why, in my review for INAC,
2 although I didn't do a lot of work on -- on mercury, I
3 was cautious and said that we need to treat this very
4 carefully because that fly could land right between our
5 eyes and bite us.
6 The second question I think had to do with
7 the results of Spencer and the concern that the results
8 of mercury were an artifact of condition factor.
9 Condition factor means that if an animal is living in a
10 nutritionally rich area it can be fatter than an organism
11 living in an area where there's not a lot of food.
12 There's different ways to measure
13 condition factor, but that's -- that's what it means.
14 And it's true that for a fatter fish you can see higher
15 concen -- you can see higher concentrations of certain
16 classes of contaminants, but that's true mostly of
17 organic compounds, not inorganic compounds, organic
18 compounds being products that are derived from oils.
19 And -- and I could go into more detail
20 there, but there's lots of papers that are written that
21 show that the -- that the concentrations are so dependent
22 on the fat in fish that you have to normalize or you have
23 to adjust for the fat content of the fish when you're
24 talking about what is in that fish to make sure that you
25 can compare apples and apples.

1 So the idea that the mercury is solely due
2 to the condition factor has merit, but it certainly --
3 the -- the idea that mercury is arising because it's been
4 introduced via the SNP monitoring station and may be a
5 function of -- nutrient enrichment cannot be dismissed
6 either.
7 And, again, like I said before, with
8 respect to mercury, it's something we really need to
9 watch. It can -- it can get into the ecosystem and then
10 start biomagnifying. And the -- it's not going to
11 change. It's going to sit there for a long, long time.
12 The third question, I think, had to do
13 with not using CCME water quality guidelines or the
14 relevance of CCME water quality guidelines and
15 interactions of chemicals when there are only a few
16 chemicals of concern.
17 Is that -- is that a correct summary of
18 that part of it?
19 MR. JOHN WILCOCKSON: I -- I think -- I
20 mean, you had a concern about if there's multiple ca --
21 multiple contaminants and the potential for synergistic
22 or additive effects. But I was saying that, in my
23 experience, as long as you're underneath the CCME, it has
24 not been a concern, in my experience.
25 THE CHAIRPERSON: And, yeah, I was going

1 to say that, for the record, could you state your name
2 again.
3 MR. JOHN WILCOCKSON: John Wilcockson.
4 THE CHAIRPERSON: Thank you, with
5 Canadian Zinc. I'll go back to Indian Northern Affairs.
6 MR. BARRY ZAJDLIK: Thank you, Mr.
7 Chairman. It's Barry Zajdlik responding on behalf of
8 INAC. The reason that I'm hesitating is because I'm -- I
9 have an answer in my head. I'm trying to figure out the
10 best way to present it to the Board.
11 There is different classes of contaminants
12 -- or there's -- there's different classes of
13 contaminants that can be released to the environment.
14 Canadian Zinc is running a metal mine. The contaminants
15 that they're releasing are by and large metals. There
16 are certain types of metals called cationic metals. What
17 happens when they go into water is that they lose a few
18 electrons and they have -- they acquire a certain charge.
19 And there's certain classes of cationic metals. They
20 divalent cat -- it doesn't really matter what they are,
21 but there's certain classes that in combinations of one
22 (1) or two (2) or three (3) can cause synergistic
23 effects.
24 So we don't have to have ten thousand
25 (10,000) chemicals that are hovering just below a CCME

1 water quality guideline that can cause a synergistic
2 effect. And for the record I'll state that there cannot
3 -- cationic metals like copper and cadmium and zinc,
4 which disrupt the gill epithelial and inhibit ion
5 transport, and so the fishes ionoregulatory mechanisms
6 become disturbed. And I know that's gobbledy gook right
7 now, but what happens is that -- the key point is that
8 only a few metals are required to cause this effect, not
9 hundreds.
10 So the concern that I expressed with
11 respect to the use of CCME water quality guidelines due
12 to synergistic effects, I maintain, still holds.
13 The next question I think had to do with
14 representative species. And I need a bit of help here,
15 because I was scrambling this question down. There was a
16 -- there was a -- a quotation from Spencer saying that
17 many of the species in that study were the EPT taxa, the
18 mayflies, caddisflies, and stone flies. Can you restate
19 that specific question, please?
20 THE CHAIRPERSON: Thank you. I'll go
21 back to Canadian Zinc.
22 MR. JOHN WILCOCKSON: Thank you, Mr.
23 Chairman. Yes, in this table it lists -- it -- it lists
24 algae, benthic macro-invertebrates, and fish. And it
25 lists both common as well as rare species. And there are

1 what are considered twenty (20) common macro-invertebrate
2 species. And a large number of those are what we call
3 the EPTs, and those are the -- the same species that
4 Barry just referred to. And these species are generally
5 considered to be very sensitive to chemical exposure,
6 including metal exposure.
7 THE CHAIRPERSON: Okay. Thank you. I'll
8 go back to Indian and Northern Affairs Canada.
9 MR. BARRY ZAJDLIK: Mr. Chair, it's Barry
10 Zajdlik, speaking on behalf of INAC. I'm sorry to say
11 that I still didn't get the question there.
12 MR. JOHN WILCOCKSON: Okay. The -- the
13 question was -- John Wilcockson. The question was with
14 regard to not acknowledging the fact that when we
15 presented the CCME, we presented at the same time species
16 that were relevant to the north, and we -- we plotted
17 that toxicity data alongside the CCME guideline.
18 So I just wanted, I guess, and
19 acknowledgement that those species have relevance because
20 of the large number of EP -- EPT taxa that are shown on
21 that table.
22 THE CHAIRPERSON: Thank you. That was
23 Canadian Zinc. I'll go back to Indian Northern Affairs
24 Canada.
25 MR. BARRY ZAJDLIK: Mr. Chair, it's Barry

1 Zajdlik speaking again on behalf of Indian Northern
2 Affairs Canada. What Mr. Wilcockson is referring to, the
3 EPT taxa mayflies, caddisflies, and stone flies that you
4 can find in a water body like this, they -- they prefer
5 fast-moving, cold, highly oxygenated streams just like
6 Prairie Creek.
7 And it's true that those animals, those
8 specific animals are often sensitive to metals, we know
9 that. So inclusion of those species into a toxicity test
10 database and -- and you'll remember that I talked about
11 earlier today about looking at how a contaminant affects
12 different species, so what -- what Canadian Zinc's done
13 is a good thing, they've included these sensitive
14 species.
15 The database that was compiled by Canadian
16 Zinc is -- is small. There are seven (7) or eight (8) or
17 ten (10) organisms in some of them, and some have a lot
18 more, so I'm not sure that all available data were
19 reviewed. I'm not questioning the relevance,
20 necessarily, of the data they included, but I don't know
21 at this point if all available data were included. The
22 datasets seem, from my experience, to be fairly small for
23 contaminants such as copper, cadmium, and zinc, which
24 have been widely studied.
25 When a water quality guideline is derived

1 by CCME or by any other regulatory agency, a vast amount
2 of effort is expended on making sure that the studies are
3 well conducted before that individual piece of
4 information gets included in the database. And I -- I
5 know, I've done this. I've worked on contracts
6 estimating water quality guidelines, and the vast
7 majority of the effort goes in -- in quality assurance of
8 the information that goes into the database.
9 And so I don't know what quality assurance
10 was practised by the proponent in including the studies.
11 That information hasn't been provided to us. So I think
12 that the information provided is -- is interesting, it's
13 useful, it's an addition to the knowledge that we have,
14 but it's, in and of itself, not sufficient to say that
15 this -- to confirm the validity of the CCME guidelines
16 that were proposed.
17 I think that I've add -- addressed one (1)
18 of the other questions peripherally, so I'm going to move
19 on to my question 6. The charge was that the reference
20 condition approach was not applicable in all
21 circumstances, and that's in the CCME document.
22 I have to say that INAC's position is we
23 agree with that. We're not claiming that the reference
24 condition approach numbers are applicable in all -- for
25 all analytes here. What we are maintaining is that they

1 form a very defensible first line of environmental
2 protection, and that they should be used whenever
3 possible. So we are open to entertaining other numbers.
4 Mr. Chair, unfortunately I can't
5 understand the scribblings I made with respect to the
6 last question. It has something to do with using generic
7 water quality guidelines at all times -- so, Mr.
8 Chairman, could I ask the -- the developer to restate
9 that particular question, please?
10 THE CHAIRPERSON: Okay. Thank you. I'll
11 go back to Canadian Zinc.
12 MR. JOHN WILCOCKSON: John Wilcockson.
13 So I'll read -- read the same statement again. Generic
14 water qualities -- water quality guidelines should be
15 adopted as water quality objectives at all sites, unless
16 the generic water quality guidelines for a substance is
17 lower than the upper limit of background at the site
18 under investigation.
19 THE CHAIRPERSON: Thank you. We'll go
20 back to Indian and Northern Affairs Canada.
21 MR. BARRY ZAJDLIK: Mr. Chair, it's Barry
22 Zajdlik speaking on behalf of INAC.
23 Yeah, I agree with that. And I -- I would
24 maintain that INAC is already abiding by that because
25 some of the CCME water quality guidelines are lower than

1 the reference condition. And INAC is not suggesting that
2 the proponent clean the water down to the CCME water
3 quality guidelines. We're suggesting that they use
4 what's naturally occurring in Prairie Creek, even though
5 it's higher than the water quality or the -- sorry, than
6 the water quality guideline.
7 THE CHAIRPERSON: Okay. Thank you. That
8 concludes your questions. Good. Right on. Thank you.
9 Okay. I'm going to go to my far right.
10 I'm going to go to my -- oh, sorry, the staff in the
11 back, my legal counsel, John Donihee.
12 MR. JOHN DONIHEE: Thank you, Mr.
13 Chairman. I have no questions.
14 THE CHAIRPERSON: The Review Board staff,
15 any questions for INAC?
16 MR. CHUCK HUBERT: Thanks, Mr. Chair.
17 No.
18 THE CHAIRPERSON: Thank you. I'll go to
19 Board member, Mr. Peter Bannon.
20 MR. PETER BANNON: Thank you, Mr. Chair.
21 I had lots of questions, but I've been worn down. I'll
22 just limit it to one (1) or two (2).
23 In the -- on page 10 of your technical
24 report you say that without site specific water quality
25 objectives it's not possible to determine the potential

1 for significance of that first impacts from the project
2 on the aquati -- aquatic environment, yet your first
3 concluding remark is that the Prairie Creek mine
4 development poses a high risk -- a high level of risk for
5 significant adverse impacts on water. I don't see how
6 that leap was met in the body of the report. Am I -- am
7 I missing something?
8 THE CHAIRPERSON: Thank you, Peter
9 Bannon. I'm going to go to Indian Northern Affairs
10 Canada.
11 MR. ROBERT JENKINS: Mr. Chair, it's
12 Robert Jenkins. Just to clarify, so you said page 10 of
13 our report. And you were talking about where we had
14 mentioned:
15 "Imperative that SSWQOs be established
16 prior to the completion of the
17 environmental assessment phase of the
18 project. Without this information, it
19 is not possible to determine the
20 potential for significant -- of adverse
21 effects from the project on the aquatic
22 environment"?
23 MR. PETER BANNON: Peter Bannon, that --
24 that is the -- the spot. And I'll just add to the
25 question that, in the leap, I -- I think that you've

1 acknowledged that there aren't site specific water
2 quality objectives that you agree with?
3 THE CHAIRPERSON: Thank you. Indian
4 Northern Affairs Canada...?
5
6 (BRIEF PAUSE)
7
8 MR. BARRY ZAJDLIK: Mr. Chair, it's Barry
9 Zajdlik speaking on behalf of INAC.
10 To answer the -- the Board member's
11 question, the risk to the Prairie Creek and downstream
12 environment is a function of what water quality
13 objectives we set. If we set water quality objectives
14 that are very close to what's already occurring there or
15 even at those numbers, the ra -- nat -- the reference
16 condition or natural background numbers, we are certain
17 that there's going to be very few risks to the
18 environment.
19 But if we walk away from this process with
20 undefined site specific water quality objectives, that
21 could be many times higher than the background. And, in
22 fact, if -- if we look at the guidelines proposed by the
23 developer, some of them are as high as twenty (20) times
24 the current background concentration.
25 So if you're asking INAC for a statement

1 such as there will be no environmental risk when we don't
2 know what the site specific water quality objectives will
3 be, we can't answer that question. And that's what the
4 statement is -- is saying. We don't know what the risks
5 will be if we don't know what the site specific water
6 quality objectives will be.
7 THE CHAIRPERSON: Thank you. I'm going
8 to go to Board member, Peter Bannon.
9 MR. PETER BANNON: I -- I don't want to
10 belabour it, but I didn't reference no risk. I re --
11 referenced the section that said that there will be a
12 high level of risk. There's a determination, a
13 quantified determination made there, and -- and
14 significance. This is in the concluding remarks. Peter
15 Bannon.
16 THE CHAIRPERSON: Okay, thank you. I'll
17 go back to Indian Northern Affairs Canada.
18
19 (BRIEF PAUSE)
20
21 MR. ROBERT JENKINS: Thank you, Mr.
22 Chair. It's Robert Jenkins with Aboriginal Affairs. And
23 -- and thank you for the clarification on that.
24 Yes, we did -- we did say in our
25 concluding remarks in the technical report that, as

1 currently proposed, there's a high level of risk for
2 significant adverse effects to water.
3 It get -- gets back largely to the three
4 (3) areas of concern that we raised in our -- in our
5 technical report. And those were water quality, or a
6 lack of agreement on site specific water quality
7 objectives and differences in opinion on the level of
8 protection to be afforded the downstream environment.
9 And this, then, relates to uncertainties in the water
10 management system which are needed to be clear, and we
11 need to be confident on all of those because those will
12 play a part in achieving those standards.
13 On top of that, it also ties in with the
14 uncertainties with tailings management and how we need to
15 ensure that what is proposed will occur. If not, it
16 could then impact the water storage system, which could
17 then impact the ability to meet effluent quality
18 criteria, which could then impact the ability to meet
19 water quality objectives downstream and which are, again,
20 in place to ensure that an adequate level of protection.
21 So, all of these things together were
22 built into -- into that conclusion in our technical
23 report.
24 THE CHAIRPERSON: Thank you. Now I'll go
25 back to Board Member Peter Bannon.

1 MR. PETER BANNON: Thank you. Peter
2 Bannon. I have one (1) more question and it's in
3 relation to your proposal for a committee to come to
4 agreement on water quality objectives and recommend them
5 to the Board for approval.
6 Have you looked at this proposal, this
7 process, in the context of the statutory requirements
8 under the MVRMA and what the Board is able to do?
9 THE CHAIRPERSON: Thank you, Peter
10 Bannon. I'm going to go to Indian and Northern Affairs
11 Canada.
12
13 (BRIEF PAUSE)
14
15 MR. ROBERT JENKINS: Thank you, Mr.
16 Chair. It's Robert Jenkins with Aboriginal Affairs.
17 We did, yes, and -- and that was a -- a
18 big part in the reason why we are now proposing a process
19 for it where you would look at if the reference condition
20 objectives could not be met, deviations from that.
21 And as I mentioned in my speaking notes,
22 there were two (2) things that needed to be done within
23 the context of the EA. And one (1) was to find out from
24 the parties what the level of protection -- should be
25 warranted if there is a deviation from the reference

1 condition. And then the second was to develop a process
2 on how to -- how the objectives would be calculated to
3 achieve that level of protection.
4 So we feel that -- that that -- those two
5 (2) aspects are required. We put in our recommendation
6 as -- those aspects should be included within the context
7 of the EA, and those things will then be used. Once you
8 have your objective set, that will inform the regulatory
9 process later on.
10 So we're looking at it as though part of
11 the work would be -- would be done now. We're hoping
12 that we can come to agreement on -- on some values very
13 quickly, and then look at what would be an acceptable
14 level of change for other parameters and then define a
15 process how to derive that. And then, after the EA,
16 there could be a process where you actually go out and do
17 the work to calculate the number itself.
18 THE CHAIRPERSON: Thank you. Any further
19 questions Peter Bannon?
20 MR. PETER BANNON: It's not a question,
21 just a comment. I was thinking more the determination --
22 the statutory constraints or restraints that the Board
23 has around the determinations it makes under, I think
24 it's 128, not what the scope of a -- an assessment might
25 be, or what might be included in an assessment. Thank

1 you.
2 THE CHAIRPERSON: That's it? Okay.
3 Thank you. That was more of a comment?
4 MR. PETER BANNON: Yes.
5 THE CHAIRPERSON: Okay. Thank you.
6 Okay. Danny Bayha, Board member. Any questions for
7 Indian Northern Affairs Canada?
8 MR. DANNY BAYHA: Yes, thank you. I just
9 have one (1) or two (2). You said that -- that there's
10 going to be some agreement hopefully, and that would
11 happen on the water quality objectives that you're
12 proposing using reference conditi -- background levels.
13 The question I have, I think, is that of
14 those type -- those quality objectives, can you sort of
15 be more specific in which ones you would like to see be
16 agreed upon before you actually -- or have this -- this -
17 - this permitting happen and they can get their permit.
18 But, I mean, in the other ones you may have to be able to
19 work it out later on as you get more information or more
20 information from the Company or so forth.
21 So I just wanted to get more specific
22 exactly which ones you really -- I know the mercury is
23 one (1) of them that you really -- you highlighted, but
24 are there others that you would really want to see some
25 definite agreement working towards getting those type of

1 objectives in place? Thank you.
2 THE CHAIRPERSON: Thank you. Indian and
3 Northern Affairs Canada...?
4
5 (BRIEF PAUSE)
6
7 MR. ROBERT JENKINS: Mr. Chair, it's
8 Robert Jenkins with Aboriginal Affairs. I think there --
9 there is a list of parameters. I don't have them all in
10 front of me, but there are a number that -- that we're
11 pretty confident that we could come to an agreement on in
12 short order.
13 The proponent is -- you know, has
14 indicated for -- for many parameters that they are -- are
15 at or -- or very close to -- to those benchmarks. So I
16 believe that, you know, we -- we need a discussion on
17 that, but I believe that -- that there's a number of
18 parameters which could be resolved quickly.
19 The -- the issue is when you get to the --
20 the parameters where there is a requirement for a
21 deviation and then it gets into an evaluation of what
22 could be done to -- to -- to -- to meet that. And then
23 following that if it's found that -- that simply there's
24 nothing that could be done reasonably, you look at what
25 would be an acceptable level of change beyond that

1 standard. And that -- that would require input from --
2 from different parties. It wouldn't be something that
3 INAC could decide alone. It would -- it would -- it
4 would want input from others.
5
6 (BRIEF PAUSE)
7
8 MR. ROBERT JENKINS: And the other, I
9 think -- so we would need to get that input, and then
10 there would need to be -- if you were to say that we --
11 we only want to see just arbitrarily a certain percentage
12 above background, then you could derive a process on --
13 on -- on calculating how you -- how to get there.
14 So a lot of the work and different things
15 like that could be done then after the EA process, before
16 the regulatory phase, of course.
17 THE CHAIRPERSON: Thank you. I'll go
18 back to Danny Bayha.
19 MR. DANNY BAYHA: Thank you. The other
20 concern I have, another -- there's -- you know, this is
21 all about -- seem to be thresholds and what's the level
22 of accept -- change, I guess, and three (3) federal
23 government departments, including GNWT, I mean, with the
24 resources they have, I mean, instead of -- could -- could
25 they design their own study and do this and -- and get

1 their own numbers so that instead of trying to get the
2 numbers from the Company they could try to do their own
3 and have some baseline information, or start towards
4 that, so that in the long term they -- they have almost
5 their own independent sampling process or -- or whatever.
6 That would give some, you know,
7 credibility to -- you know what I mean, like it'll be
8 helpful to do their own. I know the -- the officers will
9 be doing that later on, but I mean, surely there's
10 Environment Canada, yourselves, as well as the other
11 federal agencies that possibly could be -- because this -
12 - this mine has been there for a long time, or this --
13 this -- in its -- in whatever form it was, in exploration
14 stage and all that. But there's got to be some sense of
15 how the back on -- you know, the -- the way that things
16 are.
17 And like, when you're talking about the
18 lethal dose, we're talking about the lethal dose of
19 killing fish, 95 percent versus 50 percent. You know, I
20 mean, surely, I mean, couldn't that be something done
21 locally that they could -- you guys could depend on and
22 say, This -- this is acceptable? I mean, this is
23 something that communities can -- can certainly see, you
24 know, not becoming more of an academic exercise of
25 saying, Well, this could be a possibility, according to

1 studies elsewhere.
2 So I'm -- I'm just curious about the
3 department's role and the other federal government
4 agencies' role in DFO, about how they could maybe work
5 together and design some studies, not only for this
6 particular development, but others that are possibly
7 coming down the stream, so that that would be easier for
8 companies and -- and different parties to realize the --
9 the full potential of what's there. Thank you.
10 THE CHAIRPERSON: Okay. Thank you.
11 Danny, is that more or less a comment or -- or a
12 question?
13 MR. DANNY BAYHA: A question --
14 THE CHAIRPERSON: Okay. I'll go back to
15 Indian and Northern Affairs Canada.
16
17 (BRIEF PAUSE)
18
19 MR. ROBERT JENKINS: Thank you, Mr.
20 Chair. It's Robert Jenkins for Aboriginal Affairs. I
21 think one (1) part is that you'd mentioned sort of what
22 would be an acceptable level of change, and -- and
23 Aboriginal Affairs would -- would state that it's very
24 important to seek input from -- from all the parties on
25 that question.

1 So although we would have expertise
2 ourselves to -- to help contribute to that, we would also
3 value and encourage and -- and want the -- the input from
4 the other parties, including traditional users.
5 The other thing you mentioned about was --
6 was using sort of -- you know, who could go out and do
7 this, and -- and I think that, in many instances, there
8 is -- the onus is on the developer to collect baseline
9 information, but in the preparation of site-specific
10 water quality objectives or effluent quality criteria,
11 it's sort of a -- the data from all sources is used. So
12 -- so I believe, in this instance, there's been data from
13 Environment Canada, both water quality and -- and
14 hydrology data. Parks Canada has provided information.
15 I'm not sure if there was any provided
16 from Aboriginal Affairs. There's been -- there's been
17 information collected onsite through -- through water
18 licences and -- and things during their exploration
19 phase, but I think it's -- it's one where it's -- it's --
20 you would use all data sets together to do that.
21 THE CHAIRPERSON: Okay. Thank you. Any
22 further questions, Danny Bayha?
23 MR. DANNY BAYHA: Yes, further comment,
24 and I just hope you can try your darnedest to try to get
25 this thing sorted out soon. Thank you.

1 THE CHAIRPERSON: Okay. Thank you, Danny
2 Bayha. I'm going to go to Richard Mercredi. Any
3 questions for Indian and Northern Affairs Canada?
4 MR. RICHARD MERCREDI: Not a question as
5 such, but more of a statement. I guess I see -- from
6 what I'm hearing is that both the proponent and Indian
7 Affairs, water I guess is one (1) of the main themes
8 running through this project and is a -- a major concern
9 for everybody. It's very important, and it appears that
10 there's two (2) different kind of methodologies used to -
11 - to come to your conclusions, but what I'm also hearing
12 is that you're willing to -- to move and they're willing
13 to move and -- and work this out, and I'm -- I'm happy to
14 hear that. Thank you.
15 THE CHAIRPERSON: Okay. Thank you. That
16 was more or less a comment. And going to Rachel Crapeau,
17 any questions for Indian and Northern Affairs Canada?
18 MS. RACHEL CRAPEAU: I agree with what
19 Richard just said. I don't have any questions. I'm
20 getting old and grey sitting here, and I thought we were
21 going to be done earlier, but it turns out we're not
22 going to be done as quickly as I thought.
23 But interesting to note that a lady in
24 Nahanni Butte was worried about water, and it turned out
25 to be a bigger worry than I thought we were going to be

1 hearing.
2 That's all, thank you.
3 THE CHAIRPERSON: Thank you for your
4 comment, Rachel Crapeau. I'm going to go to James Wah-
5 shee, Board member.
6 MR. JAMES WAH-SHEE: Thank you. I share
7 the same sentiments expressed by Richard, and I -- I just
8 hope that something can be worked out between the
9 proponent and the -- and the federal government.
10 Thank you.
11 THE CHAIRPERSON: Thank you, Mr. Wah-
12 shee. I'm going to go to Darryl Bonnet, questions for
13 Indian and Northern Affairs Canada.
14 MR. DARRYL BOHNET: Mr. Chair, thank you
15 very much. I think I might have the last word just
16 about, and I have a nineteen (19) part question, should
17 take me about fifteen (15) minutes.
18 THE CHAIRPERSON: You're cut off.
19 MR. DARRYL BOHNET: I'm just kidding. At
20 this stage of the game, I still don't know how many site-
21 specific water quality objectives are -- are, you know,
22 on the list, and I don't have a good feel for the number
23 of objectives that are in agreement to or disagreement of
24 in -- in all.
25 Is there twenty (20) with about 50/50 or -

1 - you know what, I -- I need some feel for -- for how far
2 apart we are because it seems to be the nub of the whole
3 thing.
4 And I know the other piece was generic
5 versus RCA or first -- who -- who goes first and all this
6 sort of stuff that needs to be worked out. But if I can
7 get a feel for -- for how far we are apart, that would be
8 useful.
9 THE CHAIRPERSON: Okay, thank you,
10 Darryl. I'm going to go to Indian and Northern Affairs
11 Canada, and that was your final question.
12
13 (BRIEF PAUSE)
14
15 MS. TERESA JOUDRIE: Mr. Chair, Teresa
16 Joudrie for Aboriginal Affairs and Northern Development.
17 As I indicated earlier, I think we're
18 coming closer together than farther apart. We've gotten
19 a bit more information over the last few days about where
20 we've been able to come. The proponent has stated that
21 they're able to meet some of the targets.
22 We are meeting the first of the week to
23 flesh out what of -- what of the number are outstanding
24 and would hope to have that answer back to the Board
25 pretty fast. But I would say that we are much closer to

1 -- the number that we disagree on I would -- I would say
2 is smaller than the -- than the whole.
3 THE CHAIRPERSON: Good thing it's the end
4 of the day.
5 MS. TERESA JOUDRIE: And you said you
6 were tired.
7 THE CHAIRPERSON: I know. Okay, Darryl,
8 any more questions?
9 MR. DARRYL BOHNET: I -- I -- I think
10 I'll end there.
11 Thank you.
12 THE CHAIRPERSON: Okay, thank you. Phew.
13 I don't know, sometimes when I was a chief, we used to
14 meet till like 12:00, one o'clock in the morning
15 sometimes, and I just feel like it's all over again, you
16 know. Took me two (2) years to get out of that mode.
17 But anyways, that concludes the questions
18 from the parties, the Review Board and the legal counsel
19 and staff. I want to maybe turn it over to my legal
20 counsel and then I'm going to start wrapping up.
21 So I'm going to turn it over to Mr. John
22 Donihee.
23 MR. JOHN DONIHEE: John Donihee, I'm
24 Board counsel.
25 When supper arrived, the Board -- you may

1 have noticed the Board disappeared for a while, and they
2 had a -- a huddle and made some decisions about the
3 process going forward. And -- and Mr. Edjericon asked me
4 to make some notes and to report on the Board's
5 directions to the parties for the -- the way -- in terms
6 of the way forward with this proceeding.
7 So as it always does, the Board will hold
8 the record open until transcripts and undertakings are
9 filed. Right now, the deadline for undertakings to be
10 filed is two (2) weeks out, at least that was the longest
11 of the -- the deadlines, so that's July the 8th, 2011.
12 And that date we'd propose also to use for
13 the extra responses that Canadian Zinc requested in order
14 to shorten their question period, so we're going to
15 assume that two (2) weeks is enough time to get those
16 responses in, as well.
17 The Board had a request for final argument
18 or submissions to be made in -- in writing this time and
19 to take -- and given the timing issues that we're
20 confronted with, you'll be pleased to hear that they've
21 granted that request. That will have to take place, of
22 course, after July the 8th. And instructions on timing
23 for these arguments will be issued next week, and I'll
24 explain that a bit more in just a second.
25 The Board has recommendations from Parks

1 Canada, INAC, and expressions of interest from other
2 parties, including an indication that Canadian Zinc will
3 be meeting with INAC and that you're going to start to
4 talk about essentially the process for addressing the
5 differences that have emerged over the development of the
6 site-specific water quality objectives.
7 Despite efforts to this point, and I'll --
8 I'll simply remind you of the questions you just had or
9 the comments you just had from the Board, but despite
10 efforts to this point, it's -- it's less than clear to
11 the Board how this initiative should be managed or even
12 if it can be completed as part of the EA process without
13 jeopardizing the timeliness of the proceeding.
14 Nevertheless, the Board wants to hear from
15 the parties in writing by the end of the business day
16 next Friday on how you propose this work or this process
17 can be carried out.
18 Now any suggested approach must be open
19 and inclusive. The Board really has fairness
20 requirements that need to be respected going forward with
21 this process as -- as well.
22 Any parties interested in participating
23 must have their recommendations in writing on this
24 process to the Board by the end of the day next Friday,
25 and we ask that you give us as much detail as you can and

1 -- and really want you to include timelines and some
2 indication of how long this is going to take when you
3 describe what you need by way of further process.
4 Upon receiving these submissions the Board
5 will review them all, meet, and -- and it will then issue
6 a direction on further process, if any. And, at that
7 time, the directions issued by the Board will include
8 dates for the filing of argument.
9 The Board encourages the parties to
10 collaborate in order to set out an efficient process to
11 get at these differences on setting water quality
12 objectives and for the completion of the EA.
13 And the instructions the Board has
14 provided through me will be circulated to all parties to
15 the proceeding in writing on Monday by Board staff just
16 so that if you're a little tired of taking notes today,
17 you're -- you'll get the -- these instructions on Monday
18 morning from Board staff. So that's -- that's the way
19 the Board proposes to go forward to complete this
20 process.
21 Thank you, Mr. Chairman. I think that's
22 everything the Board wanted to -- to get out by way of
23 instructions.
24 THE CHAIRPERSON: Okay. Thank you very
25 much, Mr. John Donihee.

1 I want to thank Indian and Northern
2 Affairs for coming up and doing a presentation. We all -
3 - we all got to catch a plane soon, but I -- I'm very
4 pleased that you guys stayed to the end to really help
5 out in some of these issues.
6 Also, before I go on to other things here
7 I just want to wish a belated Happy Birthday. I won't
8 say any names, but anyway, Happy Birthday. I know he's
9 okay with that.
10 I -- I guess I also want to take this
11 opportunity to thank all the presenters that --
12 Government of Canada, Indian and Northern Affairs Canada,
13 Fisheries and Oceans Canada, Nahanni Butte Dene Band,
14 Parks Canada, Dehcho First Nation, Government -- sorry,
15 Environment Canada, Natural Resources Canada, Transport
16 Canada, Liidlii Kue First Nation, and Canadian Zinc
17 Corporation for your presentation.
18 A little bit earlier I had mentioned that
19 we had one (1) of our Board members took ill and he had
20 to leave. And I asked the question about whether there
21 was any objections from Indian and Northern Affairs
22 Canada and Canadian Zinc and -- on regards to Percy
23 Hardisty.
24 And -- and basically there was no
25 objections for him to continue on -- on the file here.

1 And I would like to ask the same questions to -- to the
2 Intervenors that were here that I just mentioned. If --
3 does anybody object for Percy Hardisty to continue on
4 with this file? I just need to see a raise of hand.
5 If anybody wants to raise your hand to
6 object. Sorry? Okay. I'm sorry? I missed your
7 question.
8 MR. JOE ACORN: I just -- I have a
9 question. Is it an expectation that he'll be reading the
10 transcripts of the -- for the portions of the Hearing
11 that he wasn't attended at?
12 THE CHAIRPERSON: Of course, yes. Yes,
13 he would. So I just want to make sure for the record, as
14 well. So is there any objections?
15 MS. KAREN TAYLOR: Hi, I'm Karen Taylor.
16 I'm with Justice Canada and I represent INAC. And I just
17 wanted to clarify the discussion that we had earlier, and
18 I think we were under the impression that Mr. Donihee was
19 going to put forward the position of the Board on whether
20 Mr. Hardisty would be continuing on in the EA.
21 And I think that was the impression that
22 we had when we said we had no objections to --
23 THE CHAIRPERSON: Okay. I'll just
24 confirm. Mr. Donihee...?
25 MR. JOHN DONIHEE: Thank you, Mr.

1 Chairman. John Donihee. I -- I did commit to providing
2 comments in writing to counsel for INAC at the break to
3 explain the Board's position on this. So with your
4 permission we'll just do that. What we know now is that
5 none of the parties have any objection, and I'll -- I'll
6 proceed to respond to INAC counsel on that basis.
7 THE CHAIRPERSON: Thank you. Okay. So
8 with that I guess we'll -- John will -- will proceed to
9 do that work. So I'm going to start just quickly want to
10 do some thank yous.
11 I want to say thank you to the Liidlii Kue
12 First Nation Chief Jim Antoine for allowing us to come
13 into his community to host this public Hearing here, also
14 Samuel -- Grand Chief Samuel Gargan, Grand Chief for the
15 Dehcho region, also, Nahendeh MLA Kevin Menicoche.
16 And I just also want to take the time to
17 thank the Review Board staff. Again, we have Martin
18 Haefele somewhere in the back, I think. And we have our
19 legal counsel, John Donihee.
20 We have Chuck Hubert, he's in the back
21 here. He's the gentleman that has this file. We also
22 have Jessica Simpson in the back who's helping out with
23 the logistical stuff. Also, Paul Mercredi, I believe
24 he's here somewhere.
25 And I also want -- again, once again we --

1 we have a close working relationship with our sister
2 Board, which is the Mackenzie Valley Land and Water
3 Board, so we -- we had Keyna Norwegian, a Board -- a new
4 Board member. She was observing. Also we have Jennifer
5 Potten and Kathy Richter (phonetic), I think they were
6 here earlier.
7 And I want to thank especially the
8 translators, Elizabeth Hardisty and Mary Jane Cazon. I
9 want to say mahsi for -- for you guys coming out to help
10 us for the last three (3) days.
11 And the sound was provided by Trevor
12 Bourque and Wendy Warnock is the lady that's up here
13 that's also doing all the transcripts, and they'll
14 probably be ready in the next few days here, if not
15 already.
16 Food, Alison Addison (phonetic) and the
17 Velocity Soccer Team here in Fort Simpson, I want to say
18 mahsi to those guys for helping out for the food here the
19 last couple of days here.
20 And, basically, those are the thank yous I
21 have. I hope I didn't forget anybody. If I did, I
22 apologize and I want to say mahsi to everybody that were
23 able to come to our Public Hearing.
24 So, in closing, I want to ask -- maybe if
25 I could ask Elizabeth Hardisty if she could come down and

1 -- to do the closing prayer, and I'd like to adjourn this
2 Public Hearing. Mahsi.
3
4 (CLOSING PRAYER)
5
6 --- Upon adjourning at 9:03 p.m.
7
8
9 Certified correct,
10
11
12
13
14 _____
15 Wendy Warnock, Ms.
16
17
18
19
20
21
22
23
24
25