NUNAVUT WATER BOARD

Whale Tail Pit Project Type "A" Water Licence
Application No. 2AM-WTP--- and Consequential Amendments
to Water Licence 2AM-MEA1525

PUBLIC HEARING/COMMUNITY SESSION

VOLUME 1

Baker Lake, Nunavut

September 26, 2017

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S. Autut	Executive Director
R. Dwyer	Licencing Administrator
D. Hohnstein	Director of Technical Services

K. Kharatyan	Acting Manager of Licensing, Senior Technical Advisor
B. Kogvik	Director of Board Administration and Communication
T. Meadows	Legal Counsel

NUNAVUT IMPACT REVIEW BOARD STAFF

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AGNICO EAGLE MINES LIMITED/APPLICANT

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J. Quesnel	Environmental Superintendent
C. Ramcharan	Community Coordinator
R. Vanengen	Whale Tail Project Lead
E. Voyer	General Supervisor, Environment
V. Bertrand	Consultant (Golder Associates)
M. Julien	Consultant (Golder Associates)
C. Prather	Consultant (Golder Associates)
C. Kowbel	Legal Counsel

INTERVENORS

DEPARTMENT OF JUSTICE

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M. Pinto	Senior Environmental Assessment Coordinator

FISHERIES AND OCEANS CANADA

M. D'Aguiar	Senior Fisheries Protection Biologist
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I. Parsons	Regional Coordinator, Project Lead
T. Brown	Consultant (Arcadis)

KIVALLIQ INUIT ASSOCIATION

J. Hart	IIBA Coordinator/Lands Inspector
L. Manzo	Director of Lands
J. Tulugak	Land Use Inspector
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(PROCEEDINGS COMMENCED AT 9:11 AM)

THE CHAIR TOOMASIE: Good morning, everyone. The public hearing shall start now.

My name is Lootie Toomasie. I'm the Chair of the Nunavut Water Board, and I'll be chairing this Panel, Water Board Panel, conducting this public hearing.

On behalf of the Nunavut Water Board, I would like to welcome everyone to this public hearing in respect of applications submitted by Agnico Eagle Mines Limited for a new Type A water licence seeking authorization for the use of water and deposit of waste associated with the mining undertaken at the Whale Tail Pit and application for potential consequential amendments to an existing water licence, 2AM-MEA1525, issued for Meadowbank Gold Mine. These applications are in relation to Agnico Eagle Mines Limited's proposal to construct a gold mine at the Whale Tail Pit and to use existing gold processing infrastructure at the Meadowbank Gold Mine to process the ore from the Whale Tail Pit.

Before we proceed any further with the hearing, we

would like to begin with an opening prayer. Please stand for opening prayer.

(OPENING PRAYER)

Opening Remarks by the Chair

THE CHAIR: On behalf of the Nunavut Water Board, I welcome you to the community of Baker Lake.

Now to provide some background and set the stage for the hearing, the Nunavut Water Board, which I shall refer to as "the Board" or "the NWB", is an institution of public government created under Article 13 of the Nunavut Agreement. The NWB is responsible for the use, management, and regulation of freshwater in the Nunavut settlement area.

The purpose of this public hearing is to review the applications filed by Agnico Eagle Mines Limited -- I may refer to as "Agnico Eagle" or "applicant" -- a new Type A water licence to authorize the new water uses and waste deposits associated with proposed gold mining at the Whale Tail Pit as well as an application for amendments to the existing Type A water licence to reflect changes at the Meadowbank mine site required to process the additional ore from the Whale Tail Pit. These proceedings are being conducted in accordance with the Nunavut Water -- Nunavut Agreement -- sorry -- the Nunavut Agreement and the NWB's legislation, the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

As set out in Article 13, Section 13.3.6 of the Nunavut Agreement and Section 29 of the Nunavut Waters and Nunavut Surface Rights Tribunal Act, the Board has delegated its power to dispose of all matters related to the processing of the application for the new Type A Licence Number 2AM-WTP and then blank -- will be the new number once it's passed -- and potential consequential amendments to the existing 2AM-MEA1525 licence, including the conduct of this public hearing, to this three-person Panel of the Board, which is referred to as the Panel 17 -- "P17 --" sorry "-- Whale Tail Pit Panel".

For those of you who were in attendance at last week's final hearing conducted by the Nunavut Impact Review Board, you may be wondering why the Nunavut Water Board is conducting our public hearing so soon after the Impact Review Board final hearing concluded and before the NIRB has issued their recommendations about whether or not the Whale Tail Project Proposal should be allowed to proceed. This public hearing is being conducted at this time as part of the coordinated review of the project proposal by the Nunavut Impact Review Board and consideration of water licencing requirements by the Nunavut Water Board. The coordinated process means that the Nunavut Water Board will conduct its public hearing over the next two days

but that the Nunavut Water Board's public hearing record will not be closed and the file will not be remitted to the Panel for decision-making until after the Nunavut Impact Review Board has issued their report and recommendations about whether the Whale Tail Pit Project Proposal can be allowed to proceed to the Minister of Indigenous and Northern Affairs Canada and the Minister has made her decision to accept or reject NIRB's recommendation.

If the Nunavut Impact Review Board recommends and the Minister accepts that the project be allowed to proceed, the Nunavut Water Board would then give all parties one final opportunity to provide written comments and updated information about the water licence applications. Once the NWB has received all information and closes the public hearing record, the Board would remit the file to the Panel for decision-making.

However, if the Nunavut Impact Review Board recommends and the Minister accepts that the project should not be allowed to proceed, then the Nunavut Water Board will not consider the applications further and the Panel would not issue a decision in respect of the applications.

I will be chairing this Panel. And with me today, as members of the Panel, are the Board members: Ross

Mrazek on my right; on my left is Alex Ningark.

Several staff members who have contributed to the NWB's administration and technical review of the application are present along with legal counsel to the NWB, and I will introduce the individuals in attendance: Stephanie Autut, executive director; David Hohnstein, director of technical services; Ben Kogvik, director of Board administration and communication; Karen Kharatyan -- I really had a hard time pronouncing this name. Sorry about that -- acting manager of licencing, senior technical advisor; Richard Dwyer, licencing administrator -- he's at the back, by the door -- and Teresa Meadows, legal counsel to the Board.

We also have with us Sophia Granchinho, manager of impact assessment with the Nunavut Impact Review Board. Sophia is joining us today as part of a coordinated review of the project proposal by the Nunavut Impact Review Board and consideration of water licencing requirements by the Nunavut Water Board.

In addition, we have two interpreters available for simultaneous interpretation: Ben Kogvik, in-house interpreter to the Board; and Alexander Alooq, who is from Baker Lake.

For audio support, William Nicoll from the Nunavut Impact Review Board is helping us out with the NIRB audio system. If you experience any difficulties with

your headsets, William is able to assist you.

To ensure an accurate record of the proceeding is kept, we have with us a court reporter, Elizabeth Royal from Dicta Court Reporting Inc. To assist our court reporter and our interpreters, we ask that all parties please state their names prior to speaking, speak clearly and at a reasonable pace, and avoid the use of abbreviations.

In the past, parties in other proceedings have approached the media prior to the release of the Board's decision, suggesting comments about what the Board is doing -- going to do either procedurally or in terms of final results. Since the Board cannot comment on pending matters, either by confirming or denying accuracy of statements by others to the media, the Board would appreciate if all parties refrain from any such comments that may imply a certain action or decision by the Board. Board members will not discuss the hearing or the matters before the Board with any of the parties or the media.

If you have questions regarding the Board and its practices or procedures, please speak with the executive director; she will assist you.

Prior to identifying and introducing all of the parties in attendance today, I will provide a brief history of the applications that are before the Board.

In terms of pre-licencing requirements, on June 17, 2016, the NWB received correspondence from the Nunavut Impact -- sorry -- Nunavut Planning Commission that, subject to the project complying with the conformity requirements set out in the plan, the project proposal conforms to the Keewatin Regional Land Use Plan. The project proposal was then forwarded to the Nunavut Impact Review Board, NIRB, for screening.

On July 21, 2016, the Nunavut Impact Review Board provided its determination that the proposed Whale Tail Pit Proposal has not been assessed as part of the original Meadowbank gold project and, due to its location outside of the original Meadowbank project footprints, would require a separate screening assessment under the Nunavut Planning and Project Assessment Act, NuPPAA. On August 18, 2016, NIRB issued a screening decision report indicating that the proposal -- proposed project required a review under Article 12, Part 5 or Part 6 of the Nunavut Agreement and Part 3 of the NuPPAA.

As I mentioned earlier, last week on September 19 to 22, the NIRB conducted its final hearing in respect of its review of the Whale Tail Pit Project Proposal and is expected to issue the NIRB's final hearing report and recommendations within 45 days from the

close of the hearing on September 22.

I am going to move on to the application that is before the Board. As mentioned earlier, the applications that are currently before the Board are for a new Type A water licence, Number 2AM-WTP -- and the number will come out after that -- requested by Agnico Eagle Mines Limited for the proposed Whale Tail Pit Project as well as some potential amendments to the existing Type A water licence, Number 2AM-MEA1525.

The scope of the application for the new water licence is generally as follows: a new eight-year water licence for the development of Whale Tail Pit, including development and operation of one open pit and the following related facilities and infrastructure at Whale Tail Pit site: a personnel camp -- it's actually a main camp -- with accommodation buildings and maintenance and storage areas and helipad; crusher, power plant, explosive magazines; waste rock and overburden storage facility; ore stockpiling facility; haul roads and access roads; quarries and borrow pits; fuel storage facility, 0.5 million litre; landfill; water collection and treatment system, including potable water and sewage treatment plants; water management infrastructure, et cetera -- attenuation pond, water collection pond, water retention dikes and dams, water diversion channels, water passage culverts;

expansion of the existing 64.1-kilometre Amaruq exploration access road (Water Licence 8BC-AEA1525 -- sorry -- it's -- I'll repeat: 8BC-AEA1525) to a haul road from 6.5 metres wide to 9.5 metres wide to accommodate increased traffic rates and haul trucks.

The following key documents pertaining to the Type A Water Licence Application Number 2AM-WTP--- were included within the Environmental Impact Statement Number 2, environmental overview and Type A water licence, submitted to the Nunavut Water Board on June 30, 2016: cover letter; Appendix 2-C, regulatory history; Appendix 2-H, completed application form for water licence amendment; Appendix 2-I, Nunavut Water Board conformity; Appendix 2-J, project design considerations; Appendix 2-K, record of compliance to the Water Board [sic]; and $30 application fee.

The Environmental Impact Statement Volume 8, monitoring, mitigation, and management plans, also included numerous updated Meadowbank environmental management plans with addenda to reflect the addition of the Whale Tail Pit as well as some standalone plans specifically for the Whale Tail Pit site.

Between December 7, 2016, and January 27, 2017, Agnico Eagle Mines Limited added to the application materials provided to the Board by filing several updated plans, technical memoranda, and additional

information requested by intervenors during their technical review of the applications. On April 7, 2017, Agnico Eagle Mines Limited also filed the Whale Tail Pit final technical comment responses with the Board.

From May through July 2017, Agnico Eagle Mines Limited filed a number of additional documents with the Board in fulfillment of their commitments provided to various intervenors at the joint NIRB/NWB technical meeting and prehearing conference on April 29 -- 28 -- sorry -- April 28 to May 1 and 2, 2017, including a water licence application -- I think this April 28-19 -- I think there's an error here. I think it's supposed to be read April 18 and 19 and May 1 to 2. Correct me, staff.

MR. HOHNSTEIN: Thank you, Mr. Chair. David Hohnstein.

Yeah, the dates there should be April 28th to 29th instead of 19th.

THE CHAIR: Thank you.

A water licence application for a new water licence filed on May 25, 2017; and an application for water licence amendment, also filed on May 25, 2017.

Copies of all submissions received in support of these applications as well as documents related to the file are available on the NWB's public registry and FTP

site.

In addition, our licencing administrator, Richard Dwyer, can make available for public review at this hearing electronic copies and paper copies of some of the key documents for the applications received to date. If you are interested in reviewing any of the documentation, ask Richard.

Now I am going to provide you with a brief overview of the procedural history for the application that is being -- before the Board, which captures only the major procedural steps:

July 8, 2016, NWB received an application from Agnico Eagle for amendments to Type A water licence for the Meadowbank's mine to include development of the Whale Tail Pit.

August 18, 2016, NWB received NIRB's determination that a separate assessment/review of the Whale Tail Pit Project should be conducted under the terms of Nunavut Agreement and Nunavut Planning and Project Assessment Act, NuPPAA.

October 3, 2016, NWB publicly distributed the application for a completeness check and initial technical assessment. NWB requested Agnico Eagle

confirm that the application could be considered by NWB as an application for a new Type A water licence and consequential amendments to the existing Type A water licence.

October 15, 2016, Agnico Eagle confirmed their acceptance of this approach.

November 3, 2016, NWB received comments related to the completeness/initial technical assessment of the application from Environment and Climate Change Canada, ECCC; Fisheries Canada -- Fisheries and Oceans Canada -- sorry -- DFO; and Indigenous and Northern Affairs Canada, INAC.

December 7, 2016, and January 26, 2017, AEM provided responses to the comments provided by intervenors in the context of their completeness review.

January 27, 2017, NIRB and NWB jointly distributed the Whale Tail Pit Project Proposal and water licence application for full technical review.

March 28, 2017, NWB received technical review comments from DFO, ECCC, INAC, and Kivalliq Inuit Association.

April 7, 2017, NWB received Agnico

Eagle's preliminary response to technical review comments.

April 28-29, 2017, NIRB and NWB held a joint technical meeting/prehearing conference in Baker Lake.

June 8, 2017, NIRB and NWB jointly released the TM/PHC decision. Subsequent NIRB and NWB hearings were scheduled for the weeks of September 18 and 25, 2017, respectively.

June 8 to July 14, 2017, Agnico Eagle provided submissions to fulfill the commitments agreed to at the TM/PHC.

July 17, 2017, NWB issued notice of public hearing.

August 14, 2017, NWB received final submissions for this public hearing from DFO, ECCC, INAC, and Kivalliq Inuit Association.

August 28, 2017, NWB received Agnico Eagle's final submission for this public hearing.

September 5, 2017, NWB received copies of presentations to be relied on at this public hearing and executive summaries from DFO, ECCC, INAC, Kivalliq Inuit Association, and Agnico Eagle.

September 8, 2017, NIRB [sic] distributed a reminder of public hearing and proposed agendas for this public hearing and community session.

Complete details on all submissions received in relation to the applications are available on the NWB's FTP site.

I will now move on to a list of issues to be addressed at this hearing as identified during the technical meeting and prehearing conference:

- integration between existing licences and the new licence
  - scope of consequential amendments/ modifications to existing Water Licence 2AM-MEA1525
  - term of the licence
- water management
  - scope of new Type A water licence applicable to the mining undertaking at Whale Tail Pit
  - water balance for all withdrawal sources (Nemo Lake)
- water use
  - annual water use amounts from each source, including changes to allocations of existing licenced water

uses

- updated water quality predictions and updates to water quality models
- water quality and flow monitoring
    - speciation of arsenic to monitoring
    - water quality modelling
    - adaptive management
- wastewater and effluent discharge criteria
- water treatment
    - water treatment methods selected for the undertaking, et cetera, arsenic and phosphorous -- if I didn't pronounce it properly, I'm sorry.
- waste rocks and tailings management
    - design changes at the tailings storage facility at Meadowbank site
    - waste rock non-potentially acid-generating and potentially acid-generating characterization
    - thermal modelling for waste rock storage facility design
- mitigation measures
- management plans and reports
    - content of plans
    - updates to plans
    - approval of plans

- closure and reclamation planning
    - pit and Whale Tail Pit [sic] north basin water quality
    - tailing impoundment area water quality
    - tailing storage and waste rock storage facility cover
    - updates to the interim closure and reclamation plan
    - security cost estimate
- water user compensation
    - confirmation from Kivalliq Inuit Association, KIA, and Agnico Eagle that there are no outstanding issues of water user compensation

If I have missed any written submissions of any intervenor, please advise Stephanie Autut, the NWB executive director, as soon as possible.

If there are no concerns, I would like to move forward to a roll call. I will begin with the roll call with the applicant, Agnico Eagle Mines Limited.

Roll Call

MR. QUESNEL: Thank you, Mr. Chair and the Board.

My name is Jamie Quesnel. I'm with Agnico Eagle, environmental superintendent for Agnico Eagle's Nunavut

projects and operations. To the far left, we have Michel Julien, vice president of environment with Agnico. To the right of Michel is Erika Voyer, general supervisor, environment, with Agnico Eagle. To the right of Erika is Candace Ramcharan, community coordinator. Next to Candace is Ryan Vanengen, the Whale Tail Project lead. To my right is our legal counsel, Christine Kowbel. And behind me, Michel Groleau, geotechnical coordinator for -- including water and tailings. Beside Michel is Valerie Bertrand with Golder, and beside Valerie is Colleen Prather with Golder Associates.

Thank you.

THE CHAIR: Thank you.

I will now go to local associations and representatives and intervening parties.

Kivalliq Inuit Association.

MR. MANZO: Thank you, Mr. Chairman.

Kivalliq Inuit Association -- my name is Luis Manzo, Kivalliq Inuit Association. And with me is Alan Sexton, our technical advisor; and two members of staff, Jeff Hart and Jeff Tulugak, with us also -- KIA member.

Thank you.

THE CHAIR: Thank you.

Fisheries and Oceans Canada.

MR. D'AGUIAR: Thank you, Mr. Chair.

Mark D'Aguiar with Fisheries and Oceans. I'm a senior fisheries protection biologist. And with me is my colleague Laura Watkinson, fisheries protection biologist with Fisheries and Oceans Canada.

Thank you.

THE CHAIR: Thank you.

Environment and Climate Change Canada.

MS. PINTO: Thank you, Mr. Chair.

Melissa Pinto, Environment and Climate Change Canada. I'm a senior environmental assessment coordinator. And behind me is Trish Auser, our water quality expert.

THE CHAIR: Thank you.

And then Indigenous and Northern Affairs Canada.

MS. COSTELLO: Good morning, Mr. Chair.

My name is Karen Costello. I'm the director of resource management with the Nunavut regional office of Indigenous and Northern Affairs Canada. I am joined by some colleagues in the back, and I just ask that they raise their hands as I introduce them.

Ian Parsons is the regional coordinator and project lead for this licence application review. Amanda Belanger, our water policy analyst from our office in Gatineau. Indigenous and Northern Affairs Canada is also supported by our technical consultant,

Tony Brown from Arcadis.

And the Government of Canada overall is supported by Justice Canada, and I'd like him to introduce himself at this time.

MR. GRUDA-DOLBEC: Good morning, Mr. Chair.

My name is Simon Gruda-Dolbec from the Department of Justice.

THE CHAIR: Thank you.

If there are any intervenors not mentioned who would like to speak, please identify yourself.

I don't see hands; so we'll continue on.

It is our tradition to give respect to our elders. Therefore, at any time during the proceedings, an elder may speak to the application that is before the Board.

Are there any members of the general public who would like to identify themselves?

Are there any representatives from agencies, associations, et cetera, who have not submitted interventions but would like to speak?

Before proceeding with the hearing, I would like to request that, if you haven't already done so, all parties present register and sign in with the Richard Dwyer, NWB's licencing administrator, at the side table located at the entrance so the Board can -- so the Board can have a complete record of everyone in attendance.

I will now turn to the identification of any motions or any objections to the application that is before the Board.

Motions/Objections

THE CHAIR: Okay. I will now proceed with Item 8 of the agenda, the presentation by the applicant.

Maybe before we proceed with this, maybe a short break first would be better. At least ten-minute break.

Thank you.

(ADJOURNMENT)

THE CHAIR: Let's proceed from the break.

The applicant has requested to make a brief presentation on the application before the Board.

Mr. Vanengen, how much time will you and your presentation require?

MR. QUESNEL: Thank you, Mr. Chair. Jamie Quesnel.

About 20 minutes for the first presentation.

THE CHAIR: Okay. So, Teresa, do you swear or affirm?

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Impact Review Board [sic].

Mr. Chair, it's my understanding that there are a

number of exhibits that we should be filing to commence the hearing. And as well I will need to swear or affirm the witnesses that are going to be speaking in this first panel.

JAMIE QUESNEL, RYAN VANENGEN, CANDACE RAMCHARAN, ERIKA VOYER, MICHEL GROLEAU, VALERIE BERTRAND, Affirmed

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Impact Review Board. So, Mr. Chair, I have -- sorry. Nunavut Water Board. First one. That was last week, so last week.

Mr. Chair, I have before me the presentation materials, so hard copy PowerPoint presentation materials, for the next seven presentations for Agnico Eagle. So I will mark those as the first seven exhibits in this public hearing.

EXHIBIT 1 - Agnico Eagle hard copy PowerPoint presentation entitled "Part I - Introduction and Overview" (English/Inuktitut)

EXHIBIT 2 - Agnico Eagle hard copy PowerPoint presentation entitled "Part II - Public Participation" (English/Inuktitut)

EXHIBIT 3 - Agnico Eagle hard copy PowerPoint presentation entitled "Part 3 - Waste Disposal and Management" (English/Inuktitut)

EXHIBIT 4 - Agnico Eagle hard copy PowerPoint presentation entitled "Part 4 - Water Use and

Management" (English/Inuktitut)
EXHIBIT 5 - Agnico Eagle hard copy PowerPoint presentation entitled "Part 5 - Abandonment, Reclamation, Closure, and Security" (English/Inuktitut)
EXHIBIT 6 - Agnico Eagle hard copy PowerPoint presentation entitled "Part 6 - Accidents and Malfunctions" (English/Inuktitut)
EXHIBIT 7 - Agnico Eagle hard copy PowerPoint presentation entitled "Part 7 - Management Plans and Monitoring Programs" (English/Inuktitut)

MS. MEADOWS: But it is also my understanding that there are three additional exhibits that Agnico Eagle wishes to tender before they speak, as they will be referring to these documents throughout their presentation materials.

So, Ms. Kowbel, if I can have confirmation from you. The first of these additional exhibits is a letter dated May 25th, 2017; and the letter is addressed to both the Nunavut Water Board and the Nunavut Impact Review Board. And it is the -- entitled "The NWB Consideration of Agnico Eagle Mines Limited Whale Tail Pit Project Proposal and Revised Water Licence Applications", and so it speaks to the amendment to the existing water licence, 2AM-MEA1525,

and also the new licence, 2AM-WTP---. So that's the first additional exhibit I have.

EXHIBIT 8 - Agnico Eagle hard copy correspondence dated May 25, 2017, to K. Kharatyan (NWB) and copied to S. Granchinho (NIRB) entitled "The NWB Consideration of Agnico Eagle Mines Limited Whale Tail Pit Project Proposal and Revised Water Licence Applications" (English)

MS. MEADOWS: The second additional exhibit is a proposed Whale Tail Pit Project Type A water licence framework for Water Licence Number 2AM-WTP---, and this document was provided and circulated yesterday, I believe, to all the parties that are here, but this is the hard copy of that presentation material.

EXHIBIT 9 - Agnico Eagle hard copy proposed Whale Tail Pit Project Type A water licence framework for Water Licence Number 2AM-WTP--- (English)

MS. MEADOWS: And then the third thing is an exhibit that was previously filed in the Nunavut Impact Review Board hearings that is -- consists of meeting notes between Indigenous and Northern Affairs Canada, Agnico Eagle, and Golder Associates Limited. The meeting date is September 14th, 2017; and it is

entitled "Golder Document Number 145, Meeting Notes, Whale Tail Pit Response Package Clarifications".

EXHIBIT 10 - Agnico Eagle hard copy meeting notes between Indigenous and Northern Affairs Canada, Agnico Eagle, and Golder Associates Limited dated September 14, 2017 (English)

MS. MEADOWS: I believe I have all the exhibits, but if I can confirm that with Ms. Kowbel.

MS. KOWBEL: Thank you, Mr. Chair. Christine Kowbel for Agnico Eagle.

Yes, those are all the exhibits that we have for now.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, it's also my understanding that there are two additional exhibits that will be tendered by Indigenous and Northern Affairs Canada but that it would be preferable if we actually marked these exhibits and enter them now, as they are referenced in the materials that Agnico Eagle will be presenting.

So I have before me Indigenous and Northern Affairs Canada reclaim estimate for Whale Tail Pit Project, Revision 6, dated September 11th, 2017.

EXHIBIT 11 - Indigenous and Northern Affairs Canada hard copy reclaim estimate for Whale Tail Pit Project, Revision 6, dated

September 11, 2017 (English)

MS. MEADOWS: And I also have the Whale Tail security management agreement, final, September 5th, 2017, between the Kivalliq Inuit Association, Agnico Eagle Mines Limited, and Her Majesty the Queen in Right of Canada as represented by the Minister of Indigenous and Northern Affairs.

EXHIBIT 12 - Indigenous and Northern Affairs Canada hard copy Whale Tail security management agreement, final, September 5, 2017, between the Kivalliq Inuit Association, Agnico Eagle, and Her Majesty the Queen in Right of Canada as represented by the Minister of Indigenous and Northern Affairs (English)

MS. MEADOWS: So if I can just confirm with legal counsel for the Department of Justice that those are the two exhibits that INAC wishes to tender.

MR. GRUDA-DOLBEC: Simon Gruda-Dolbec from the Department of Justice. I confirm this.

Just an additional comment in regard to the product licence: We just want to mention that we have not had the opportunity yet to review it; so we cannot confirm that we agree to its content, and we might have some comments to make about it eventually.

Thank you.

MS. MEADOWS: Thank you, Mr. Chair.

And so that exhibit is the proposed Whale Tail Pit Project Type A water licence framework. It's my understanding that perhaps at the end of this public hearing, before we go into closing statements, if we can have any of the comments that any of the parties have on this document or any of the revisions that may be required, there may be an updated copy that potentially could be tendered. But we'll mark this one as "draft" for this exhibit.

Thank you, Mr. Chair. Those are all my procedural matters.

THE CHAIR: Thank you.

Participants are reminded to state their name prior to speaking to assist the stenographer in keeping an accurate record of the proceeding.

Thank you, Mr. Vanengen. Please go ahead with the presentation.

Presentation by Agnico Eagle Mines Limited
(Introduction and Overview)

MR. QUESNEL: Thank you, Mr. Chair and the Board. Jamie Quesnel with Agnico.

I would like to start this presentation by thanking the Water Board and its staff for their clear guidance and direction during this coordinated Nunavut Impact Review Board and Nunavut Water Board review

process and for the opportunity that they have provided to Agnico Eagle and all intervenors and interested parties to address issues related to the Whale Tail Pit Project in a very thorough and constructive way.

We believe that the process that was established by both Boards for the Whale Tail Pit Project has given us the opportunity to undertake a comprehensive review of issues related to water and waste. We are going to provide a detailed summary of the issues that we considered during the review during today's presentations to the Board.

I would like to thank all the parties that are here today and others that are not here today, including our consultants and the Agnico team, for the work they've done over the past one and a half years to help us improve the proposed Whale Tail Pit Project.

There's been a lot of work completed by all the parties. This has led us to a better proposal. We thank the parties for the comments and recommendations that were submitted. In preparation for the hearing, we captured and addressed these recommendations in our final written submission to the Nunavut Impact Review Board and Nunavut Water Board on August 28th.

Through that submission, we indicated those recommendations where we were in agreement with the parties. We provided them a detailed response to

comments where we believed that such a response would be helpful and also flagged those recommendations where further discussion is required or where we did not have agreement at that point in time. All of these were filed with the Board as part of our submission.

Since that filing, we have worked with several of the parties to better understand each other's positions, provide better clarity, and to try to find agreement. We had follow-up meetings and discussions and made some additional commitments. You will hear more about this engagement and the outcome as we move through our presentations today.

Mr. Chair, I am pleased to report that, through collaboration with all of the parties, we have been able to reach consensus on the key technical matters related -- relating to the water licence and we believe there are no significant outstanding issues.

And with that, I will start with an introduction and overview of the Whale Tail Pit Project and a quick overview of the company.

Thank you.

So in this slide, some of the key items we will be looking at in this presentation: We introduced the Agnico Eagle team; we're going to look at Agnico Eagle operations globally and also in Nunavut; Agnico Eagle's Indigenous People engagement commitment; a brief

regulatory history of the Whale Tail Pit and also the Meadowbank -- part of the Meadowbank division project; a summary of the Whale Tail Pit Project, which is the future of the Meadowbank division located on the Amaruq exploration property; an overview of the construction and operations at the Whale Tail Pit; overview of the use of the Meadowbank mine facilities; and, most importantly, highlight the continued success of training and development of our skilled Nunavut workforce.

And, also, this is an overview, but my colleagues will be presenting much more detail in selective subjects that I'll be discussing in this presentation.

This slide just highlights the -- where we are globally. We are a Canadian-based company. We started in Cobalt, Ontario, 1957. This is our 60th anniversary of the company. We're very proud of that. We're listed on the Toronto Stock Exchange and also in the New York Stock Exchange. We're a publicly traded company. All that information can be found on our website and other locations. We have nine operating mines in Nunavut, Quebec, Finland, and Mexico. At this time, we have more than 7,500 employees, and we're planning to build on that. We produced over 1.6 million ounces of gold in 2016. And, also, we're proud to be one of Canada's top 50 responsible companies.

Here in Nunavut, we have the one operating mine, Meadowbank, located approximately 70 kilometres north of Baker Lake, which is shown on the right side of this slide; and it's the only operating mine in the Kivalliq Region. Agnico Eagle has advanced projects -- the Meliadine project, just north of Rankin Inlet. We're under construction at this time, well advanced with that project schedule, with production -- commercial production scheduled for September 2019.

Also, just briefly, with marine transportation for the Whale Tail Pit Project, the shipping route is the same; no additional ships for Whale Tail. So it's the same as it is right now, up to nine ships per year.

This slide here highlights Agnico's Indigenous People engagement commitment: Agnico Eagle Mines will work in partnership with Indigenous People to establish a mutually beneficial, cooperative, and productive relationship. Our approach will be characterized by effective two-way communication, consultation, and partnering.

And part of this -- I'll just briefly discuss this because my colleague Candace will talk about this a little bit more. We have a system: the planning of events for public engagement; the doing, where we complete these things; the checking, to just see where we can improve, if there's anything that we missed,

things that we have to improve upon; and act, where we put that into place with management reviews, external reviews with Kivalliq Inuit Association, internal and external stakeholder commitments to advise us on improvement.

This slide summarizes Agnico's history and also the future in Nunavut, but I'm just going to focus on the Whale Tail Pit activities. The first gold discovery was in 1972. Agnico's acquisition of the property was in 2007. Agnico Eagle's first drilling activity was in 2013. Approval for construction with Agnico Eagle's board, pending approvals of all permits, 2017. Construction period would be 2018 to 2019; commercial production, 2019. End of production, that's corrected. It's not 2021; just a correction, it is 2022.

So with the Amaruq exploration project, we have extensive exploration drilling. We have a resource estimate of 3.7 million ounces. There's a proposed satellite deposit, the Whale Tail Pit, to supply ore to the Meadowbank mill. It will be using existing Meadowbank facilities, including the maintenance shops, the processing plant, the tailings storage facility, the camp, the airstrip that we have at Meadowbank. This infrastructure will be used at Meadowbank for the Whale Tail Pit Project.

This is just an overall summary of the permitting update. I think that's been presented by the Board. There's really nothing else to add. We're into the Water Board hearings right now. So I'd just like to go on to the -- a little bit more description on the Whale Tail Pit Project.

This slide just highlights some of the key activities dealing with the existing Meadowbank life of mine, where the ore would be exhausted, would be depleted, by the third quarter of 2018. This is a very -- this is why it's so important to have our licence in place by July 2018, to initiate the construction for the dikes, the Whale Tail dike and the Mammoth dike.

The Whale Tail Pit construction -- site preparation to construction by July 2018. We have our operational window from 2019 to 2022. The closure stage is 2022 to 2029. And based on our security and the final closure plan -- not the final closure plan but our security agreement with Indigenous and Northern Affairs Canada and the Kivalliq Inuit Association, our post-closure stage is from 2030 to 2046.

So some of the key aspects of construction of the Whale Tail Pit Project would include the dikes -- the Whale Tail dike, the Mammoth dike -- the site pads, the site and haul road expansion. Right now we have our

exploration road at six-and-a-half metres. Part of this application would be to expand that to nine and a half. Operationally, we have 650 employees. The ore from the Whale Tail Pit will be hauled to the Meadowbank mill. We'll have a camp at Whale Tail and also continued use of the Meadowbank camp and infrastructure, as I mentioned earlier.

Meadowbank will continue to operate at the 11,000 tonnes per day until the third quarter of 2018. There's going to be a production gap between the third quarter of 2018 and the third quarter of 2019. In this application, the approvals are very important for the continuity of the workforce, to ensure everyone stays employed during this gap related to construction of the activities at Whale Tail. If approved, the Whale Tail Pit is proposed to operate up to 11,000 tonnes per day. Initially, it would be 9,500 tonnes per day beginning the third quarter of 2019. We'll ramp up to 11,000 tonnes per day beginning in 2020. We're estimating about just over 8 million tonnes of ore will be mined. And, again, the total gold resource for the Whale Tail Pit will extend the life of mine at Meadowbank.

As we're -- the Whale Tail Pit is 64 kilometres away from Meadowbank, we'll be hauling this ore from Whale Tail Pit to Meadowbank by using 18 long-haul trucks. The trucks will travel from Whale Tail to

Meadowbank with the ore, heavy, to the ore -- to Meadowbank and will return empty to Whale Tail Pit. We're operating 24 hours per day. We'll have two-and-a-half cycles per day or five trips per day per long-haul truck. An estimate is about 154 trips on the road. But out of the calendar year, we have estimated 28 days to shut down for blizzards and also for any -- for the caribou migration.

This slide shows a couple of trucks we're looking at for the long haul. We'll select this from a pilot that will be starting next month, just based on the road and the -- how it fits into the north related to the distance and also the driver capabilities. The first truck is a six-by-six, all-wheel drive. So all three axles with the six wheels are driving the truck, moving the truck. It's like a four-by-four truck or an ATV. The second one is a ten-by-ten, where we have the five axles and all the wheels on those axles are powered to move the truck.

The capacity remains the same for both options, which is 150 million tons -- 150 metric tons. Sorry. And the truck trailer length is 84 feet. So with both options, 150 tons in the box, 84 feet in length.

This slide summarizes the road alignment. Right now the exploration road from the Meadowbank Vault pit, which is to the bottom right, and up to Whale Tail.

This reddish colour is the Inuit-owned land, and this area here is Crown land.

Again, 64 kilometres of length for the haul road that will connect to Meadowbank, two thirds of this road alignment is on Crown, one third on Inuit-owned land. Right now, the exploration road, which has just been connected between Meadowbank and Whale Tail about three weeks ago, that road is six-and-a-half metres wide. Part of this application is to widen an additional three metres. And along this road alignment, we have nine clear-span bridges. And just at the bottom of this slide shows the alignment of the bridges, typical plan view of that.

The next slide is a video. We will show -- it will show the -- as it is right now -- the predevelopment, operational window, and closure.

Thanks, Ryan.

This shows the Whale Tail Lake. The water is flowing in this direction right now, from Whale Tail's south basin, north basin, through the Mammoth Lake channel, towards Mammoth Lake, and continues in this direction. So Whale Tail Lake, Mammoth channel, Mammoth Lake. And, also, we have a 3-D model in the back that highlights this.

This is during operations. So we have the Whale Tail dike. This is the south basin. The water would

flow in the opposite direction. My colleagues will talk about that. The attenuation pond. The Whale Tail Pit. The Mammoth dike. The waste rock storage facility. So it's cut off here, and it's cut off in Whale Tail Lake during operations. Waste rock storage facility.

This is during closure. The dikes will be breached, Whale Tail and also Mammoth; and the water will return, flowing in this direction, the natural direction. The Whale Tail Pit will be re-flooded.

The dikes would not be breached until the water quality meets the criteria. So it would be like a big bathtub until the water quality meets that objective; and then we would breach those dikes, and the water will be flowing through that.

And that's all for the video.

THE CHAIR: Thank you.

Is there any questions/concerns to the presentation? Just asking to have in between. Thank you.

MR. QUESNEL: Thank you, Mr. Chair. We have a few more slides for this presentation. That was the last -- that was the end of that video. We just have a few more slides of this presentation.

Thank you.

THE CHAIR: Okay. Go ahead. Continue.

MR. QUESNEL: This slide is just -- I'll just talk to it very briefly. My colleagues will talk about this in more detail, and we have the posters at the back of the room.

It just highlights the construction window for the Whale Tail dike and also the Meadowbank -- Mammoth dike -- sorry -- and also for the berm for the waste rock storage facility.

This slide just highlights the construction phase, the dewatering phase, and the operational phase. So the construction's planned to begin as soon as permits are received. Again, the critical milestone is building the Whale Tail dike in open water beginning in July 2018. That's a very important milestone for us. And material preparation must begin as early as possible, to ensure we have the volume of material to complete this construction. Again, Ryan and Michel Groleau will get into more discussions on these details.

This just shows a site plan during operations of the site and infrastructure. Some other key areas would be the camp area, the industrial pad. We have the stockpiles and overburden storage, the north stockpile, the waste rock storage facility. Again, at the back of the room, we have the 3-D model which highlights this phase of the operation. So it gives

you a good indication of where everything sits compared to the surrounding lakes.

In addition, at the Whale Tail Pit Project, we'll have a camp. We'll have eight wings to accommodate 210 workers. There we'll have a kitchen, a mine dry, and office space. 440 persons, approximately, will stay at Meadowbank and the existing camp at Meadowbank. At Whale Tail, we'll have a sewage treatment plant that will discharge into the attenuation pond. Freshwater use, approximately 118- cubic metres per day -- per year. Sorry. And exploration site will need to move. So we have an existing camp right now that would -- for exploration purposes that would be moved, and this camp here is at our Meliadine location. This gives you an idea what this camp will look like at Whale Tail.

Additional infrastructure, Whale Tail: power plant, fuel storage, and also hazardous material. We'll have two 250,000-litre tanks with secondary containment for fuel. We'll have two 1.8-megawatt power plants, generators. The hazardous material will be temporarily stored in a small laydown. Typical items for hazardous material: waste grease, batteries, used hydraulic hoses. Those type of things will be collected at Whale Tail, shipped to Meadowbank, then shipped down south to a licenced facility in Quebec. Organic waste will be shipped in closed containers back

to Meadowbank for incineration.

This is just a site plan for closure. Again, more details in following presentations.

And, also, this is post-closure, when the water quality meets those objectives in the flooded -- in the flooded pit and the dikes are breached.

Continued use of the Meadowbank camp, mill, and tailings storage facility. This is a photograph of our entry to the Meadowbank camp.

This shows the existing Meadowbank operation. We have our existing -- our Bay Goose pit. That's finished production. Portage pits. Our tailings storage facilities are here. The Vault pit is up here, on the top of the slide. Our airstrip is located right here. Our camp and our mill facilities, located here.

So Q3 2018, no additional ore will be coming from these pits. That will be completed. And the Whale Tail Pit, based on approvals, will start production in 2019.

This is our tailings storage facility, north cell. This is our tailings storage facility, the south cell. And the following presentations will provide more detail.

This shows part of the application for a small raise in the north cell, along that perimeter.

So Agnico Eagle's vision: We want to be in

Nunavut for decades. Nunavut platform can be a cornerstone for Agnico Eagle for several decades. We could secure a production base of approximately 700,000 ounces per year. The Meadowbank lessons and successes can be leveraged in new Agnico projects in Nunavut, like the Whale Tail Pit Project. The Whale Tail Pit Project will extend the life of Meadowbank, and Amaruq is the future of the Meadowbank division. Again, with Meliadine, another hub in Nunavut remains a significant potential catalyst for Agnico's growth in Nunavut. And, overall, our vision is to have our mines managed by Inuit.

Thank you.

THE CHAIR: Thank you, applicant.

Is there questions, concerns?

Start with Kivalliq Inuit Association.

MR. MANZO: Thank you, Mr. Chairman. Luis Manzo, Kivalliq Inuit Association.

No questions at this time.

THE CHAIR: Thank you.

Next, INAC, do you have questions, concerns?

MS. COSTELLO: Karen Costello for Indigenous and Northern Affairs Canada. Thank you, Mr. Chair.

We have no questions at this time.

THE CHAIR: Thank you.

Next, Environment and Climate Change Canada.

MS. PINTO: Thank you, Mr. Chair. Melissa Pinto, Environment and Climate Change Canada.

We have no questions at this time.

THE CHAIR: Thank you.

Next, Department of Fisheries and Oceans Canada.

MR. D'AGUIAR: Thank you, Mr. Chair. Mark D'Aguiar for Fisheries and Oceans Canada.

We have no questions at this time.

Thank you.

THE CHAIR: Thank you.

Next, public. Is there questions, comments from the public?

Go ahead. Come to the -- come to the mic.

The Public Questions Agnico Eagle Mines Limited

EDWIN EVO: Thank you, Mr. Chair.

My question is if Agnico Eagle will be operating Amaruq and Meliadine at the same time.

THE CHAIR: Thank you.

Applicant.

MR. QUESNEL: Thank you, Mr. Chair.

Meadowbank will be operating 'til the third quarter 2018. Whale Tail will start in 2019. Meliadine will start in September 2019. So based on approvals, if we do receive them for Whale Tail, they'll both be operating at the same time.

EDWIN EVO: Mr. Chair, this is not a

question. It's more of a concern regarding winter operation, as probably some of the people here have experience, a great amount of snow over at Coral Harbour. But I'm a -- I'm a blind person, but what my son and my granddaughter told me, last winter, there was a tremendous amount of a snowstorm that -- over at the Coral Harbour -- that -- this is just an example -- that some of the buildings' chimney was sticking out through the snow and then some of the snowmobiles drive right over the roof.

And then my fear is that something like this might happen in one of the winters. Is a gold mine operation prepared for that kind of incident? That -- what my worries are -- tailings impound could be pretty well covered. Some of the areas are covered at 12, 15 feet of snow, even in town here.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

Is there any more questions/concerns from public? Okay. There's none.

So NWB staff.

Nunavut Water Board Staff Questions Agnico Eagle Mines Limited

MR. KHARATYAN: Thank you, Mr. Chair.

Just a small comment.

On Slide 12, we can see that in the schedule the

closure will change to 2022-2029, and I guess the Slide 13 is just an oversight stating still 2022-2025?

MR. QUESNEL: Thank you, Mr. Chair.

Yeah. Just to clarify, operations, 2019 to 2022; closure phase, 2022 to 2029; the post-closure stage, 2030 to 2046.

Thank you.

MR. KHARATYAN: Thank you. No more questions.

THE CHAIR: Okay. Thank you.

Any further questions from the staff? No? Okay.

And the Board? Okay.

Thank you, applicant, for your presentation. Okay. Go ahead. Continue.

Presentation by Agnico Eagle Mines Limited (Public Participation)

MS. RAMCHARAN: Blatsiq [phonetic], Mr. Chair and members of the Board. My name is Candace Ramcharan, and I will be speaking about public participation for the Whale Tail Pit Project.

As mentioned by my colleague Jamie, Agnico's public participation is shaped by our corporate-wide Indigenous People engagement commitment that states that Agnico will work in partnership with Indigenous People to establish a mutually beneficial, cooperative, and productive relationship. Our approach will be characterized by effective two-way communication,

consultation, and partnering.

Our responsible mining management system guides how Agnico manages health, safety, environment, and community relations activities and provides the framework for how we do public participation.

The responsible mining management system guides our public participation through four main activities -- plan, do, check, and act -- and is presented in more detail in Appendix 8-G of the environmental impact statement. The plan, do, check, and act framework shapes our public engagement approach.

The policies and frameworks that go into the planning phase of our engagement approach are the Agnico Eagle sustainable development policy, which is included in Volume 1, Section 1.13 of the environmental impact statement, Nunavut Impact Review Board requirements, as well as our Inuit Impact and Benefit Agreement.

The way we implement our plan, the "do" part of the responsible mining management system, is through our community offices in Baker Lake and in Rankin Inlet where we have community relations representatives who interact on a regular basis with different community members and groups. This includes quarterly meetings with hamlets and hunters and trappers organizations,

open houses and public meetings throughout the year.

In order to check or monitor the effectiveness of our public engagement, Agnico has a number of mechanisms to receive feedback from communities of interest, such as our formal community complaints and agreements mechanism named "tusaajugut", "We're Listening". This mechanism allows for anonymous, unnamed complaints by community members and groups and provides multiple points of contact -- such as email, phone, or in person -- for community members and organizations to formally report their concerns related to environmental and wildlife issues, tendering and hiring processes, or any other aspects of Agnico's operations.

Finally, our public engagement plan activities and monitoring are reviewed internally by management as well as externally by different groups, such as the Kivalliq Inuit Association as well as our corporate stakeholder advisory committee.

Some examples of Agnico's public participation in action are the Baker Lake Whale Tail information session that was held in April of this year. This was a public meeting attended by 122 community members. There have been many other public engagement activities, such as quarterly community employment information sessions held in Baker Lake and in all

seven communities of the Kivalliq, Festival by the Lake, site tours for Baker Lake residents at the Meadowbank mine, and public meetings for the Baker Lake wellness plan.

A key goal of Agnico Eagle's public participation program has been to ensure that we provide people with the mechanisms they need to provide inputs, including Inuit Qaujimajatuqangit, so that the project is better to inform its decision-making and project design. Throughout Meadowbank and for the Whale Tail Pit Project, 147 consultations have taken place between 2012 and 2017. These consultations have taken different formats, such as formal meetings; site visits; workshops; and public meetings, such as open houses and information sessions, which are less formal and open to anyone from the public. Different communities and community organizations have been engaged, such as the Baker Lake Community Liaison Committee, elders, youth, women, the Hamlet, Hunters and Trappers Organization, as well as communities and organizations from Chesterfield Inlet, Rankin Inlet, Coral Harbour, Naujaat, and Whale Cove. The details of these consultations can be found in the consultation log of the environmental impact statement in Appendix 2-G.

Agnico Eagle recognizes the importance of Inuit

Qaujimajatuqangit and has been able to incorporate these values to Agnico practices throughout the Whale Tail Pit Project. For example, the principle of pilimmaksarniq is used in the development of our training programs and upward mobility programs, such as the career path and apprenticeship program, which can help our employees in developing transferrable skills to use at either of our sites or elsewhere in their communities.

Avatittinnik kamatsiarniq, respect and care for the land, animals, and the environment is incorporated in the environmental policies and practices, Inuit Impact and Benefit Agreement, environmental obligations, and ongoing working relationships with the Baker Lake Hunters and Trappers Organization. For example, Agnico has committed to hiring a wildlife monitor from the Baker Lake Hunters and Trappers Organization to assist in our environmental monitoring.

The basic approach of integrating Inuit Qaujimajatuqangit into the baseline studies and environmental assessment conducted for the project takes the basic framework of workshops, baseline data collection, feedback, integration, and review. This process has been endorsed by the Kivalliq Inuit Association representatives.

I'll pass it over to my colleague Ryan to explain

this approach in more detail.

MR. VANENGEN: Mr. Chair and Board members, for the next five slides, I'm going to present on a few examples of how we integrated the workshop information into our impact assessment and into, ultimately, the Nunavut Water Board licence.

So as my colleague Candace explained, the Whale Tail Pit Project is a very good example of how we integrated Inuit Qaujimajatuqangit and traditional knowledge into our project design during baseline studies, as shown here in the slide, and then ultimately into our project as we integrated and reviewed our project.

We hosted a number of workshops already beginning in December 2014 that provide us the information that's shown on the next two slides. The information collected in the workshops, the Inuit Qaujimajatuqangit and traditional knowledge was -- in those workshops -- were shared with our scientists, our engineers, and our biologists which then allowed us to then design things, like the roadway and our site here, with the information provided during those workshops. That happened in 2014; it happened in 2015; and then it also happened in 2016 -- where we shared in kind of that loop with our scientists all of the Inuit Qaujimajatuqangit.

What it showed us, as demonstrated in this slide, are where the harvest sites are and also where the wildlife are moving and interacting with our project and, related to the Nunavut Water Board, where some of the traditional land use was around some of the waterways. And what we found was that from these workshops that the Inuit traditional land use was focused very much on the centre of our road, and these trails -- these lines marked with dash -- yellow dash marks are trails that are traditionally used for moving between Baker Lake and Gjoa Haven. And this is the area of land that's typically used; and, therefore, in the spring, when there's still ice and the travel on the land is more common, fishing and water use would occur on those lakes and, also, of course, hunting in the area. It also identified some of the archaeological sites, and these here are grave sites that were identified during the Inuit Qaujimajatuqangit workshops.

One important example of how we integrated Inuit Qaujimajatuqangit into our baseline studies was through our archaeological baseline studies. As a result, we were able to avoid the majority of the archaeological sites along our road, and this added an additional approximately 1.5 kilometres to our proposed haul road. Related to waste and water for the Nunavut Water Board,

it also -- these workshops informed us on ensuring that our road material protected the waterways. So we've ensured that our road material is non-potentially acid generating and non-metal leaching, and that was informed through those workshops.

The next set of slides -- so that's the first example. The second example, more detailed example, is how we integrated and workshopped with the Baker Lake Hunting and Trapping Organization, elders, and other stakeholders in the design of our -- of our traditional land-use crossings on the haul road.

So we began meeting with stakeholders in December of 2014, as I described. We followed up with stakeholders visits in September 2015 related to the crossings on the road, the traditional land-use crossings. We then followed up with another meeting and workshop in 2016. This was followed up with another series of meetings in 2016. And, ultimately, in the spring of 2017, we finalized one of our locations, including the design of that traditional land-use crossing; and it looks like this here in this photo. We're working with the HTO, the Hunting and Trapping Organization, to finalize that; but we've decided on the design and collectively decided on the location of that traditional land-use crossing. And that's located on the map right here, of our roadway.

So now I'll pass it to Candace to provide a summary of our presentation.

MS. RAMCHARAN: The Inuit Qaujimajatuqangit collected on the Whale Tail Pit Project includes knowledge on the existing condition of the area, concerns on the various project impacts, and recommendations for the project. Concerns that were highlighted on the various project impacts -- such as caribou, shipping lanes, spills, employment and training, as well as legacy infrastructure -- are included as part of the effects assessment, and recommendations are considered when we were developing our mitigation and monitoring plans. More information on these areas of concern as well as the mitigation plans are found in Volume 7 of the environmental impact assessment.

Agnico Eagle will continue to use its public participation framework and Inuit Qaujimajatuqangit values to address concerns over the life of the project through continued engagement and consultation with key communities of interest.

Mat'na.

THE CHAIR: So that's the end of the presentation, second presentation?

MR. VANENGEN: Yeah, Mr. Chair, that's the end of the public participation presentation.

THE CHAIR: Okay. Can I ask questions or concerns? Can I ask, KIA, you have concerns or -- questions/concerns?

MR. MANZO: Thank you, Mr. Chairman. Luis Manzo, director of lands, Kivalliq Inuit Association.

No questions at this time.

THE CHAIR: Thank you.

INAC, do you have questions or concerns?

MR. PARSONS: Ian Parsons, INAC.

Mr. Chair, no comments or concerns.

THE CHAIR: Thank you.

Environment and Climate Change Canada.

MS. PINTO: Thank you, Mr. Chair. Melissa Pinto, Environment and Climate Change Canada.

We have no questions at this time.

THE CHAIR: Then DFO.

MR. D'AGUIAR: Thank you, Mr. Chair. Fisheries and Oceans, Mark D'Aguiar.

We have no questions at this time.

Thank you.

THE CHAIR: Thank you.

Is there concerns/comments from public? Is there concerns or questions from public?

Comments by Kivalliq Inuit Association

MR. MANZO: Thank you, Mr. Chairman. Just to correct my first intervention -- Luis Manzo,

Kivalliq Inuit Association.

We have concerns on the -- on the road: It's too narrow; the slopes are too high; and it require more friendly crossings for caribou.

Thank you, Mr. Chairman.

THE CHAIR: Thank you.

And then NWB staff.

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, NWB staff.

No questions at this time.

THE CHAIR: Thank you.

Panel members? I have none. Okay. Thank you.

So you may continue on with your other presentation.

MR. VANENGEN: Mr. Chair, we're just going to take 30 seconds to just have Michel and Valerie join us.

Presentation by Agnico Eagle Mines Limited (Waste Disposal and Management)

MR. GROLEAU: Good morning, Mr. Chair and Board's members. My name is Michel Groleau. I'm the geotechnical coordinator in Meadowbank.

The geotechnical team in Meadowbank is in charge of the construction of the dewatering and tailing dikes, the site water management, and the operation of the tailings storage facility. I am glad to present

you with the support of Valerie Bertrand and Erika Voyer the global waste management strategy for the Whale Tail Project.

I will initiate the presentation with an overview of the history of the Meadowbank tailings storage facility, the tailings storage requirement for the Whale Tail Project, and the closure of the Meadowbank tailings storage facility. Valerie Bertrand will then follow with the presentation of the Whale Tail waste rock storage facility and proposed thermal instrumentation. And, finally, Erika Voyer will close the presentation with an overview of the Whale Tail waste rock management.

The Nunavut Water Board Type A Licence 2AM-MEA1525 allow Agnico Eagle to build tailings dike up to elevation 150 metre above sea level and to store approximately 30.2 million cubic metres of tailing. The initial mining plan of Meadowbank was based on the economic situation at that time and of the project design. Since then, the economic forecast changed and the mining plan have been revised, and forecasted tailing produce has been reduced accordingly. The total capacity required to complete the mining of the Meadowbank project is currently evaluated at 23.8 million cubic metre, which gave us a residual capacity of 6.4 million cubic metre to store new tailings.

The Whale Tail Project production plan is forecasting the production of 8.3 million tonnes of tailing. In order to store that mass of tailing, Agnico Eagle Mine is planning to increase by 1.9 million cubic metre the capacity of the north cell tailings storage facility by building the north cell internal structure. The total capacity of the tailings storage facility will be then of 32.1 million cubic metre.

The chart on this slide presents the storage curve of the north and south cell tailings storage facility until the completion of the Whale Tail project. As you can see, when we sum up those two curves together, we get a total of 30 million cubic metre of tailings at the end of the Whale Tail Project, which leaves us 2.1 million cubic metre of available capacity to perform proper water management of the tailing impound and buffer capacity in case of operational issue.

Mr. Board, there was a concern related to snow management. That available capacity will help us to store that -- you know, those large snow event as well.

Here, on that slide, we have a picture of the north cell tailings storage facility. This tailing impound is delineated by the Saddle Dam 1, the Saddle Dam 2, the storm water dike, the Rock-Fill -- the Rock-Fill Dam 1, and the Rock-Fill Structure 2 here.

The reclaim pump is located in the middle here of the pump. The north cell infrastructure will be built on the periphery of the facility, so from here and all around up to here. Finally, as you can see, the tailing is well contained inside the facility, and no trace of seepage or other type of contamination can be seen outside the footprint of the tailings storage facility.

This picture shows the south cell tailings storage facility. This tailing impound is delineated by the central dike here. And the early construction stage of the Saddle Dam 5, that will -- that is located around here. Here is the Saddle Dam 4; and on the left here, it will be the Saddle Dam 3. The reclaim pump is located around here, at the west side of the pump.

As mentioned earlier, the north cell internal structure will be built over the north cell tailings storage facility to increase the capacity of around 2 million cubic metres. The figure on the left here shows the geometry of the north cell before resuming deposition in June 2019. The incline structure will start from here and go all around the tailing impound. And deposition will be more or less from the north end here, where you can see the small red line, and will push tailing to the south. That reclaim pump will get smaller and smaller and will transfer water from that

area to the mill.

On this slide is the same slide but much more on the -- based on the south cell tailings storage facility. As mentioned earlier, the dikes and the dam delineating the south cell tailings storage facility will be raised to elevation 150 and will gain 6.4 million cubic metres of capacity.

Note there's a small mistake on that slide. You should read here "south cell raise", and here it should be write [sic] down "south cell before resuming deposition". Sorry about that, Mr. Chair.

The figure here on the right side depicts the geometry of the south cell before resuming deposition in October 2019. For the operation of that tailings impound, tailings will be discharged from the central dike, and the tailings will push the water here in direction of the reclaim pump, and the water will be transferred to the mill.

This slide is presenting the design of the north cell internal structure. This rock-fill structure is 30 metres wide, and tailings will be discharged on the upstream side, located here. Sump and trenches are planned to be dig on the downstream side. These water collection infrastructure are built to collect seeping water, and they will be built within the footprint of the tailing impound. The seepage water will be pumped

back inside the tailings pump and reclaimed then after to the mill. To give you an order of magnitude, the seepage volume will be in between 4,000 and 12,000 cubic metre per year, which is considered manageable, according to the designer and Agnico Eagle.

I think there's a -- Ryan? Yeah. There's a mistake here. That slide shouldn't appear in that presentation; so I will just skip it.

Geochemistry of the Whale Tail and Meadowbank tailing are similar. Both mineralization are low sulphur that carries arsenic and have similar characteristic, as both are potentially acid generating but show delay to onset acidification. They are arsenic leaching; they carry cyanide by-product; and they have similar grain size.

Agnico Eagle Mine do not foresee any problem related to acid generation and arsenic leaching during operation and closure of the tailings storage facility. During the closure of the tailings storage facility, any chemical produced during the operation will be treated prior to pump the water, the residual water, contained in the facility to the Portage pit as part of our closure plan. Treatment criteria will be set in order to meet CCME, our site-specific water quality requirement, prior to do the Goose dike breaching at closure.

Once the tailing pump reclaim water will be empty, when there will be no more water in the tailing facility, we'll cover the beach with the 2-metre-thick layer of non-acid-generating material or rock. At this point, we'll perform a thermal encapsulation of the tailing, which will prevent arsenic leaching and acid generation during post-closure. Agnico Eagle is planning to use soapstone as a cover material for the Meadowbank storage facility.

Agnico Eagle has performed environmental testing on the soapstone in 2015 and 2016 following concerns raised by the Meadowbank independent dike review board regarding the long-term physical properties of the Meadowbank soapstone unit planned to be used to build that cover. It was suggested that the resistance to freeze-and-thaw and wet-and-dry cycles had to be evaluated through laboratory testing. The objective of these tests was to evaluate erosion potential of this material.

The table below shows result of mass loss after 80 cycles of wet-dry or free-and-thaw. These tests was conducted by the Research Institute on Mines and Environment. These tests are common in construction industry to evaluate durability of concrete or stone.

A summary of the soapstone environmental testing results are presented on this slide. I will summarize

it: The results suggest that the freeze-and-thaw and wet-and-dry cycle on the integrity of the soapstone are small and that the Meadowbank soapstone is a good material for the construction of the structure as the cover for the tailings storage facility.

In 2015, Agnico Eagle completed the design of the tailings storage facility landform with the support of O'Kane Consultant. The landform design objectives were to ensure water-shedding landform, which will prevent any water ponding over the cover; and to ensure stability of the landform by limiting erosion of the cover. To achieve these objectives, the direct runoff will be diverting out of the landform via channels, as you can see in blue on that figure. Post-construction discharge can be controlled and treated in order to meet CCME or site-specific water quality criteria and where long-term water discharge is approved.

The other important objective of the landform are to ensure the landform will fit into the landscape and not generate post-construction dust and not interfere with caribou migration. The landform design is consisting of a non-acid-generating rock thermal cover with a minimal thickness of 2 metres. In order to build those -- oops -- to build those channels, we need to have higher cover, and more than 90 percent of the surface will have a cover thicker than 4 metres and

will reach up to 8 metres in those areas.

The channels are presented by the blue arrows. There's two outlets, one going to the south cell and one going to the diversion ditches and then flowing to third Portage lake. A sump will be built in this area to collect the water and do testing before discharge to the third Portage lake. The system will be closed until we meet the water quality criteria.

Here you have a picture of the south cell tailings storage facility landform. It's the same principle than the -- on the north cell. We have channels in blue that divert the water, the runoff water, and will mix with the water running from the north cell, Outlet Number 1. This water will be mixed together and then flow to the south cell outlet. A large sump will collect the water prior to discharge to third Portage lake.

In summary, the north cell tailings storage facility will reach maximum capacity in September 2021 with 16.2 million cubic metres of tailings stored. On the other end, the south cell tailings storage facility will reach maximum capacity in January 2022 with 13.8 million cubic metres of tailings stored.

Agnico Eagle submitted a standalone tailings management plan to Nunavut Water Board on January 25th, 2017. And as a Nunavut Water Board condition, the

tailings management plan will be updated prior to operations.

This slide is presenting the progressive closure work did on the north cell tailings storage facility over the last year. We built a 2-metre cover here on the north end of the pump to evaluate the constructability of this thermal cover. And the picture here at the bottom right is showing a test cell in which we put instruments to see the -- how the permafrost is building up in the tailings with that cover. So we have thermistors and the other instruments to collect data and evaluate the efficiency of this cover.

Finally, here you've got some pictures presenting the soapstone slabs that were used to do the wet-and-dry and the cycle testing by the Research Institute on Mines and Environment and the typical section of our test cell over the tailings.

We'll be happy to answer more questions. Before that, I will let my colleague Valerie Bertrand continue with the presentation about the waste rock storage facility.

MS. BERTRAND: Thank you, Mr. Chairman and the Board. My name is Valerie Bertrand, and in the next eight slides, I'll talk about the waste rock studies that led to the development of the waste rock

management plan. Details of the plan, of that management plan, will then be provided by Erika Voyer after I'm done.

So this slide shows the alternatives assessment that was done to position the waste rock pile -- to propose a position for the waste rock pile.

Oops. This one.

This is the position, the proposed location of the waste rock pile. These other areas were assessed in the process of determining what is the best location for the waste rock pile. So the location was selected after evaluating these alternatives shown, and the criteria for evaluating the best location included proximity to the pit, how close it was to the pit -- the closer, the better for ease of transport -- and the ability to have good water drainage control and affect the least amount of watersheds as well as the ability to contain and direct the contact water from the rock storage facility.

The location of the -- the location north of Mammoth Lake was selected. So they said this location was selected because it is proximal to the pit. It is only -- it is on a slightly elevated topography with a small -- within a small watershed that drains to one location, over here, such that it makes it easier to collect and capture all the waters for water quality

control.

So this slide, this picture, shows a schematic of the geology of the Whale Tail area. The following slides talk about the effect, the potential effect, of waste, tailings, waste rock, overburden, the potential effects of these on water quality. These depend on the chemical composition of the rock excavated by mining and the tailings produced as well as the overburden, the sediments of the lake that's going to be dried before mining. This in turn depends on the geology of the deposit. Both are described in the following slides.

The Whale Tail Pit geology -- okay -- this area -- consists of very old volcanic rocks. The gold mineralization highlighted here in red -- so the pit is over here. The mineralization in red is gold mineralization in a low-sulphur system. And that's important; I'll tell you why later. It's hosted in rock that is iron formation, in chert, and a bit in ultramafic rock. These other rock types that are encountered are on this table here. On either side of the ore deposit is greywacke rock, in here, and the diorite rock -- which contain no gold and very little sulphur. The quantity of rock that will be removed from the open pit is shown over here. And the proportion of it in the waste rock pile -- that will

report to the waste rock pile -- is in the last column over here.

To date, over 200 samples of waste rock, ore, tailings, and lake sediments have been collected for testing -- okay -- to determine what the chemical properties are of that rock so that we can define what the potential effects on water quality will be when these rocks are exposed in the open-pit wall and on the rock pile as well as in the tailing and pond facility. The sampling plan was based on industry-standard practices. It considers the amount of waste rock. It captures the distribution of the different rock types and their composition -- the varied composition.

This slide's a schematic of the geology viewed from the surface with each rock types shown in different colours. Okay. So from the surface, if you were to look at it, you wouldn't see these colours. But this is the different rock types here. The ore is over here. On this side is the waste rock, the rock that would go in the big rock storage facility, and so is this as well.

The surface outline of the pit is shown in a dashed line here, over here. So this is what you will -- you have seen in the prehearing, the -- that was shown at the prehearing conference in April. The dark lines, over here, are the pushback areas that

you'll hear about a bit later. The pushback areas will be completed for the following reasons: The north pushback, here, is proposed it will be removed to remove the rocks -- more of the rocks shown in purple, these rocks, so that they're not part or a smaller part of the open-pit wall because these rocks affect the quality of the flooded pit water at closure. Okay. So the pushback, we'll remove more of these rocks to improve water quality. The southern pushback will be -- will proceed, but a very shallow layer of rock will be removed in order to allow access to additional good rock for the cover, if needed. If needed.

So this one slide on the results of the investigation to determine whether the rock could have an effect on water quality shows the laboratory analyses that were completed on the samples of all the mine waste -- the rock, the tailings, the ore, the sediments, and the overburden -- within the pit footprint. These analyses were done to evaluate whether the material could be acid generating and, if they were acid generating, how much time it would take for acid to start to occur and whether they could release chemicals to the environment, in water, and to what levels -- like, a lot of chemicals or not so much. Let me explain why these issues are of concern or interest.

Acid can be released from sulphur. Sulphur is a chemical that is naturally in the minerals, in the rock, of this deposit and of many deposits, including the deposit at Meadowbank. Now, the sulphur when it's exposed to air can rust, can oxidize or rust. It rusts just like a car or snowmobile. The ability of the rock to generate acid is measured by the amount of this chemical, the sulphur, in the rock; and that amount is compared to the amount of another mineral, a carbonate mineral, that neutralizes this acid in the rock. So rock is considered non-acid generating when it has at least twice the amount of neutralization capacity than sulphur. So "PAG" is an acronym to say "potentially acid generating". Non-potentially acid generating is this part of the graph, above a ratio of two, so two times buffering; and below here is what could be acid generating.

So the right -- so that graph demonstrates the rock really has a low potential for acid rock drainage. Most of the rock types are in this area. This area really is only two rock types. They represent about a third of all the waste rock that will be put in the rock storage facility. Okay. These rock types are located really in the centre of the open pit.

Another aspect of rock composition that can effect water quality, as I said earlier, is the amount and

type of metals in the rock that can be diluted in water. So, for example, the water that we're drinking contains metals. The evidence of that is sometimes when we boil water we see a residue on the teapot or we see residue on the showerhead. Those residues are metals that have precipitated out of the water. Now, a small amount of metals in water is normal, but too much metals can have a negative effect on fish and humans depending on the amount and also depending on the actual metal, what metal it is.

So for these rock types, the ability to release metals from rocks or tailings was evaluated, and the results are summarized on the -- over here. So the result is, in summary, that most of the chemicals contained in the Whale Tail mine waste -- okay -- they are released to water but in very low concentration. They're not of concern.

One that might be is arsenic because it can -- it releases at high concentrations for some of the rock types. Those rock types are the iron formation and the ultramafic rock, the purple rock that you saw in the previous slide. So that one can release a little bit of arsenic -- can release arsenic. Okay. These two rock types, they make up 46 percent of the waste rock from the open pit. So this rock needs to be managed and will be managed in the waste rock facility. Erika

will explain how, a little bit more about that. And the control strategy at the long term -- in the long term, the control strategy of a cover and then freezeback of the mass below the cover where these rocks are will be effective at preventing negative effects to the receiving environment. These points have been discussed quite a bit extensively with the intervenors, and this together with commitments on monitoring and management of the waste rock are such that there are, we understand, no further issues.

Altogether, about 30 percent of the rock is non-acid generating or low chemical content to release and can be used for cover on the waste rock storage facility.

Now, that potentially acid-generating rock that we talked earlier was a point of discussion with the intervenors. We found that this rock does not oxidize or does not rust very quickly at all. The sulphur minerals are such that they don't rust very quickly. The reactivity is lower than that of the rocks at Meadowbank. Meadowbank also has some potentially acid-generating rock, as Erika will explain; and those rocks have not generated bad water quality after seven years of operation. And for these, Whale Tail -- so the delay to the possible onset of acid generation is longer, much longer, than what is expected to take to

freezeback and to cover the waste rock pile.

So this graph has pH, which is a measure of how acid the water is. Down here, it says the water is acid. Up here, the water is good; it's within the criteria. But some test work has been done on all these samples for a period of over two years -- or just -- sorry -- just under two years, and we see -- and that's in conditions in the laboratory much more aggressive than what will happen at site because of the climate and because of other things. And so this test work that we've done -- this is only a small part of the results -- show that how very little -- very low reactivity these materials are, adding to our confidence that there will be no problem of acid generation during operation or closure.

This slide is about what materials are going to be used for construction at site. The material that will be used will be non-acid generating. The 30 percent of material that is non-acid generating and non-leaching. These materials are easily identified and separated from the rocks that are leachable and acid generating.

It is currently expected that a thickness of about 3-and-a-half, 3.3 metres is required to contain the active thaw depth and keep the waste rock pile frozen. To this estimate is added another .7 metres as contingency for a total cover thickness of 4 metres.

This is really expected to be adequate for covering the waste rock storage facility. Should more cover be needed in places, there is ample additional good rock in that southern portion and also ample additional rock within the existing footprint.

The following slides present the steps of the waste rock management plan that will be implemented in order to have an effective identification and segregation of waste rock to minimize possible impacts.

MS. VOYER: Thank you, Mr. Chair, members of the Board. Erika Voyer, Agnico Eagle Mine.

These following slides, as mentioned by Valerie, will present the main step for waste rock management at the Whale Tail Project. The waste rock --

THE CHAIR: Excuse me. One of the Board members requires a short break, so a quick break. We may as well take lunch for now, I guess. It's 12:00 now; it's five after 12. So is that convenient for you?

MS. VOYER: Yeah. Perfect. We will continue after lunch.

THE CHAIR: Yeah. Okay. One hour. Okay. Come back 1:30, yeah, would be good.

Thank you.

(LUNCHEON ADJOURNMENT AT 12:06 PM)

(PROCEEDINGS RECOMMENCED AT 1:33 PM).

THE CHAIR: Good afternoon. We shall start now our afternoon session, continue on from this morning's presentation.

Applicant, go ahead.

Resumed Presentation by Agnico Eagle Mines Limited

MS. VOYER: Thank you, Mr. Chair, Board Members. Erika Voyer, Agnico Eagle Mine. I will continue with the presentation started this morning.

These following slides present the main step for the waste rock management at the Whale Tail Project. The waste rock management plan define quantities as well as timing of the waste rock availability and also define the various uses for the waste rock material. The mine waste rock prediction sequence is determined for every mine plan. We know how much waste rock and which type we will encounter during mining.

The material balance is completed for each year of operation. The material balance consists of the calculation of material quantity, including waste material and ore available at different stage of mining. The material balance indicate the various types and use of material that's being mined. Depending of their type, waste rock material can be used for general construction, dam construction, non-acid generator cover required for closure, and the rock can also be disposed at the waste rock storage

facility. Non-potentially acid generator and non-metal leaching waste rock produced by mining activity is used for the construction of the remaining mine infrastructure and also for closure requirement.

What are the main steps for the waste rock management? First, at the baseline stage, meaning at the very beginning of the project, from the geological information available, we have identified the type of waste rock by lithology that are present in the pit and also their potential use. The rock type are identified in our model of the pit for each geological formation.

During the mining process in the pit, the geology team will do sampling of every blast by sampling the material coming out of selected drill hole during drilling. The analysis of the sample is completed on-site in our laboratory. With the data from the laboratory analyses of the rock, we can define the acid rock drainage potential and classify if the waste rock is either potentially acid generator or non-acid generator. To validate the method used by Agnico Eagle on-site laboratory, some duplicate samples are also sent to external laboratory for external quality control and assurance.

On a daily basis, the geology team characterizes the rock types being mined and transferred this information to the staff working in the pit who are

mining the material. After each blast, each rock type is marked with ribbon and tape in the pit to delineate the rock type to guide the shovel operator during the excavation of the material.

In the pit, we mark or delineate the waste rock potentially acid generating or metal leaching that is to be transported to the waste rock storage facility. The waste rock non-acid generating and non-metal leaching that can be used for construction of infrastructure; and, also, we mark or delineate the ore to be placed in the ore stockpile and to be -- or to be sent at the mill to be processed.

All the waste rock will be classified according to site-specific acid rock drainage and metal leaching criteria. As for Meadowbank, the Whale Tail Project will have a metal leaching and acid rock drainage sampling plan which will include the specific detail and criteria for the different type of rock we will encounter.

Sampling of the waste rock will be done during mining. Testing for acid rock drainage and metal leaching will be done on-site to determine the rock type and the ore. The waste rock will be identified in the pit prior to excavation, segregated, and transported to the appropriate location according to the waste rock management plan.

During the mining process, the geology team will conduct sampling of every blast by sampling the material coming out of a selected drill hole. The analysis on-site of the sample will be done for total sulphur and inorganic carbon to determine acid rock drainage potential to be able to differentiate if the rock is potentially acid generating or non-acid generating. Arsenic will also be analyzed on selected lithology. Gold value contained in the rock will also be analyzed to differentiate the ore from the waste rock.

Results of the analyses is included to the block model by the mine geologists to adjust the waste rock management plan as needed during production. The management plan is reviewed and adjusted with the information gained throughout the operation.

Field sampling of rock material for analysis to determine the acid rock drainage and metal leaching potential will follow specific guidelines, including specific sampling frequency on the drill hole, specific labelling procedure for traceability, and use of composite samples will be avoided, as they're not considered representative samples.

Following laboratory analysis, geology staff will classify the waste rock and also overburden as non-acid generator or potentially acid generator material. The

NPR, net potential ratio, is a value that is calculated and basically consists of the ratio of carbonate and sulphur contained in the rock. This ratio is used to classify if the rock is potentially acid generator or a non-acid generator.

The engineering team is in charge of the waste rock management plan. The plan is reviewed on a weekly basis by the engineering planning group, and production maps are issued showing classification of the waste rock and ore trucking and deposition location. The waste rock management is an essential part of the mining plan.

The waste rock types in the appropriate deposition locations are identified in the same way that gold ore is identified and trucked to the mill or placed in the ore stockpile. This step is crucial to the operation and to the development of the open pit.

As mentioned, after each blast in the pit, each rock type is marked clearly with ribbon and paint in the pit by the geology team and the surveyor team in order to delineate properly the rock type and to guide the shovel operator and loader operators during the excavation. Daily maps are provided to pit shift boss, as presented on the right figure. The map include the different types of rock in the pit identified by the geology team.

On this slide, the figure on the left presents a schematic view of the delimitation of the packet in the blasted rock material in the pit. We can see the specific colour of tape and paint delineating the different type of material, such as ore in yellow, potentially acid generating and non-acid generating in green here on the figure on the -- on the left. The right photo show blasted material delineated with tape by the geology team to indicate the material transition. We can't see very well on the figure, but just the tape is located where the arrow is pointing on the right figure.

In the addition to the waste management maps provided by the engineering and the geology information marked every day in the pit, the dispatch system is also a control tool for the segregation, transportation, and placement of the waste rock. The dispatch system is used at Meadowbank and will also be used at Whale Tail.

The information for each area ready to mine prepared by the geology team is imported in the dispatch system. The system and the dispatcher in charge, as shown on the left picture, guide the operators and ensure the ore and the waste rock material are transported to the appropriate destination at all times. The execution of the waste rock

management is a step-by-step process that includes different team during the whole mining process.

Because of the large requirement of material for construction and also the requirement for non-acid generator material for the cover and also for adequate disposal to meet our closure objective, waste rock management is a key component of the mining planning.

The photo on the right on this slide shows the Portage Waste Rock Storage Facility at Meadowbank. The sector for potentially acid generator material and the non-acid generator material, as well as for the cover of non-acid generator are clearly indicated in the field with markers so the operator can see during their work clearly where are the different zones. Those sector are also -- will also -- are also identified -- sorry -- in the dispatch system. Location for the waste rock placement will also be clearly defined and marked for the Whale Tail Project. Periodic sampling of waste rock material in pile and in contact water to verify and document the effectiveness of the waste rock management plan is conducted at Meadowbank and will also be completed at Whale Tail.

Agnico will follow the effective operational practices adapted from Meadowbank and will adhere to their management plan for the Whale Tail Project. The best practices for waste rock management adopted at

Meadowbank will continue at the Whale Tail Project with the same qualified and trained staff. Agnico also proposed to update the waste rock storage facility plan to outline the waste rock segregation practices. Agnico believed that closure of the waste rock storage facility will be controlled through on-site monitoring, as well as with experience gained at Meadowbank and also through adaptive management.

Following the technical meeting for the Whale Tail Project in April, Agnico completed the thermal analysis of the Whale Tail waste rock storage facility and determined that a non-acid generator cover of 3.3 metre thick may be required to ensure thermal and chemical stability of the waste rock material at closure. As my colleague Valerie mentioned previously in the presentation, 0.5 metre will be added for safety for the cover for a total of 3.8 metre cover thickness.

Agnico Eagle will construct a 4 metre non-acid generator cover over the waste rock storage facility at Whale Tail. The material balance indicate that there is sufficient, good waste rock material to complete the cover. Also, the waste rock management, including the segregation protocol as presented in the previous slide, as well as the mitigation strategy, were reviewed and discussed with Indigenous and Northern Affairs Canada, Environment Canada, and the Kivalliq

Inuit Association. Finally, Agnico has performed sensitivity analyses model to consider the worst-case scenarios for waste rock segregation, including the waste rock material coming from the north wall of the Whale Tail Pit.

Finally, regarding the water quality prediction for the Whale Tail Pit Project, modelling predict that arsenic and phosphorous treatment may be required during operation. With treatment of arsenic to 0.1 milligrams per litre, the base-case model predict that concentration at downstream location are below Canadian Environmental Quality Guideline for all applicable parameter and below site-specific water quality objective for arsenic are met at all stage of operation, closure and post-closure. Post-closure base-case prediction indicate that all applicable dissolve and total perimeter concentration are predicted to meet Canadian Environmental Quality Guideline, and arsenic is predicted to meet the site-specific water objective. Additional information on water quality prediction will be presented by my colleague in the next presentation.

This concludes the presentation. Thank you. Mat'na.

THE CHAIR: Thank you. So we'll open for questions or concerns.

So we'll start with the Kivalliq Inuit Association.

MR. MANZO: Thank you, Mr. Chairman. Luis Manzo, director of land, Kivalliq Inuit Association.

No questions at this time.

THE CHAIR: Thank you.

INAC, do you have questions, concerns?

MS. COSTELLO: Indigenous and Northern Affairs, Karen Costello.

We have no questions at this time. Some of the statements that Agnico has brought forward in this section we will speak to in our presentation. Thank you, Mr. Chair.

THE CHAIR: Thank you.

Then Environment and Climate Change Canada.

MS. PINTO: Thank you, Mr. Chair. Melissa Pinto, Environment and Climate Change Canada.

We have no questions at this time.

THE CHAIR: Thank you.

Next, DFO.

MR. D'AGUIAR: Thank you, Mr. Chair. Mark D'Aguiar with Fisheries and Oceans Canada.

We have no questions at this time.

Thank you.

THE CHAIR: Thank you.

Is there questions or concerns from public? Is

there concerns from public? There's none?

Okay. DFO -- sorry. NWB staff.

Nunavut Water Board Staff Questions Agnico Eagle Mines Limited

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, Nunavut Water Board staff.

Can you go back to Slide 13, please. Couple questions. Yes, this one. Just to confirm, what is the meaning or definition of "post-construction for tailings storage facility"?

MR. VANENGEN: Mr. Chair. Ryan Vanengen from Agnico Eagle.

What's meant by the post-construction discharges, is -- we call the -- when we're planning our -- the construction or closure of our tailings storage facility, we refer to it as the construction of our tailings storage facility cap. So once we've completed the cover design for the closure, we'll achieve -- as the slide says, we'll achieve discharge criteria.

Thank you.

MR. KHARATYAN: Mr. Chair. Karen Kharatyan, Water Board staff.

Follow-up: We know that, with the Whale Tail Pit, the arsenic loading will be much more than in Meadowbank. So from my memory -- I think, based on my memory, CCME doesn't have criteria for arsenic. Maybe

we should follow up -- have a follow-up question with Environment and Climate Change Canada.

So if CCME doesn't have data for arsenic, so site-specific water quality criteria should be established.

MR. VANENGEN: Mr. Chair. The Nunavut Water Board is correct. We would look into defining that when we move into the closure phase, and we would continue to work with the Nunavut Water Board to establish site-specific or appropriate water quality criteria based on the information that we have, and that would be determined in the closure phase and as we lead towards a closure, which would require a new licence at that point in time.

Mat'na.

MR. KHARATYAN: Mr. Chair. Karen Kharatyan, Water Board staff.

One more question: With the thermal licence requested 2025 then updated to 2026, which is during the closure phase now -- based on the information provided, now it's the closure phase. And I remember that it was stated during technical meeting that before post-closure now any direct discharge will happen from waste rock storage facility sump can be -- until -- or during the term of this licence, no direct discharge into environment from waste rock storage facility sump

will happen.

MR. VANENGEN: Ryan Vanengen from Agnico Eagle. Mr. Board -- Mr. Chairman and Board Members.

What you're referring to, Karen Kharatyan, is the sump downstream of our waste rock facility at Whale Tail. And you're absolutely correct; the water that we would -- that would collect in that sump during closure up until 2026 will not be discharged into the environment. Rather, it will be directed -- treated, if needed, and directed to the pit area that's going to be re-flooded during that period of time, and we would continue to monitor that effluent -- or that -- not effluent. It's the water pump from the sump into the pit. We'll continue to monitor that. As well as then its assimilation with the pit water and the area in the north basin area that we're re-flooding.

MR. KHARATYAN: Mr. Chair. Karen Kharatyan, Water Board staff.

Into pit or into attenuation pond?

MR. VANENGEN: Ryan Vanengen from Agnico Eagle.

The -- it would be initially -- it would -- in 2026, the water levels would be the same. So that -- the attenuation pond and the water within the pit area would all be considered one waterbody at that point, and, therefore, it would be considered the north Whale

Tail lake basin area. The details before 2026, we have to work out in terms of the sequencing of that -- where the water would go. But, certainly, our -- you know, it would be -- it would be our goal to -- to flood that area as rapidly as possible, so any water would go just into the either the pit or the attenuation pond, and those details we'll work out with the Nunavut Water Board at that time.

THE CHAIR: Thank you.

MR. KHARATYAN: Thank you, Mr. Chair. I may have a follow-up question later on. Karen Kharatyan, Water Board.

THE CHAIR: Thank you.

Stephanie, go ahead.

MS. AUTUT: Thank you, Mr. Chair. Stephanie Autut, Nunavut Water Board.

If you could just refer to the cover slide of this presentation, please. I just need to seek some clarification for the purposes of the exhibit that's been filed. Okay.

So I just -- if you could confirm for the record for the purposes of the exhibits that this cover slide is not the slide that was provided electronically in a presentation to the Board, as well as Slide Number 8, I believe it was, which was in the -- in this presentation but not filed electronically with the

Board that you skipped over in your presentation. We're just looking for clarification that nothing else in the presentation has changed.

THE CHAIR: Applicant, go ahead.

MR. QUESNEL: Thank you, Mr. Chair. Jamie Quesnel.

Yeah, with this presentation, what you see on the screen right now is not correct. It's the handouts and electronic versions that we provided were Part 3, Waste Disposal and Management. And also in this presentation that we went through, Slide 8, we did skip that. We did not talk about that slide. So all the other slides in the presentation are correct based on the handouts we have that we provided to the Board and also electronic version that we provided to the Board earlier. So apologize for that. Hopefully that answers your question.

MS. AUTUT: Okay. Thank you for that clarification. And for the purposes of the record, the exhibit will stand.

Thank you.

THE CHAIR: Thank you.

Karen.

MR. KHARATYAN: Mr. Chair. Karen Kharatyan, Water Board.

As a follow-up, yes, I am a little bit confused

because, from my understanding, the waste rock storage facility seepage, et cetera, from sump was going to attenuation pond. Now, if by 2026 this attenuation pond may be flooded already by pit, how this will be treated, if needed, by that time?

THE CHAIR: Applicant.

MR. GROLEAU: Michel Groleau, Agnico Eagle. Mr. Chair.

To answer your question, the water that will be stored in that waste rock pump will be -- before -- be transferred to the pit or into the attenuation pond during the closure process to make sure it's meeting the criteria of CCME or site-specific before dike breaching. So at this point, there will be no more attenuation pond. We'll get into more details about that in the next presentation about water management.

MR. KHARATYAN: Thank you.

THE CHAIR: Thank you.

And then, Panel members, do you have questions? No questions.

So, applicant, you can continue with your next presentation. Go ahead, applicants.

Presentation by Agnico Eagle Mines Limited (Water Use and Management)

MR. VANENGEN: Thank you, Mr. Chair and Board members.

For the next -- next hour, because of its importance for the Water Board, we're going to be presenting on our water use and water management. So myself, Ryan Vanengen, and Valerie Bertrand, my colleague, will be presenting. The presentation focuses on issues that were highlighted during the review process, and all issues have since been resolved with intervenors.

So for the next hour, we're going to be presenting on the water management, which includes aspects of contact water, groundwater management, fresh water diversion, management of mine water, water quality, and monitoring of -- and its effects on the receiving environment.

Water management plans have been adapted and will be -- will continue to adapt with new information that comes in. We'll present on that. And we'll also present a few slides on our fisheries offset planning and fish-out as well.

So, overall, I'm sure the Board members have seen this on other projects as well, and the Whale Tail Pit is no different. The overall objective for mine site water management is to reduce the amount of contact water to divert non-contact water away from the mine site area and to limit the quantity of fresh water use. This will be explained in the next few slides with my

colleague Valerie.

So as presented by Jamie Quesnel in the first set of slides, we have our area around the mine site here, the Whale Tail Pit site, and all of the water within this area is controlled. And we control -- and we call that area "the contact water area". It's controlled through the sump here from our waste rock pile. That water reports to the attenuation pond. The water from our camp facilities is treated at the source. The sewage is treated. And then the water is sent to the attenuation pond. And any sumps in our pit -- all that water is reports in the pit, is sent to the attenuation pond and then treated as necessary and discharged into Mammoth Lake, down here.

The ponds and water management systems have been designed to hold all contact waters, and this table presents the mean annual volume of water that are predicted to be managed within the Whale Tail Pit site and the water that will be managed from the site on an average year. You can see all of these volumes here. I've also provided printed and translated copies -- that include translated copies to board members and the translators as well of the tables that are in here.

To ensure the protection of the receiving environment, we will be using a series of dikes that really build on our Meadowbank experience. We have

dikes at Meadowbank that contain, as I described, the surface water and make sure that the surface water of the mine site doesn't interact with the clean receiving environment. Examples of those dikes are -- is the south camp dike, as well as the Vault dike. And at Whale Tail Pit, we're going to construct a dike very similar to those structures, and it's called the Mammoth dike, and I'll just go back to this slide here. It's this dike here, the Mammoth dike, will be similar in its design and construction methodology to these dikes here that are illustrated and taken from photos of our Meadowbank site.

The Whale Tail dike -- I'll go back to this slide as well, and my colleague Jamie presented it in his earlier slide deck, the Whale Tail dike located here is going to be constructed very similar to the dikes that we've already constructed at Meadowbank. So the Bay Goose dike and also the east dike, which separates right now the Meadowbank pit -- so the Goose pit here -- from the receiving environment. So this is what essentially we're proposing to do for the Whale Tail dike. And you can see the design here is very similar in its design to the Bay Goose dike at Meadowbank, as well as the east dike at Meadowbank.

Using the lessons learned from -- from the construction at Meadowbank, we will manage and control

our total suspended solids. We will employ mitigation steps, such as turbidity curtain installation; you can see the turbidity curtains here in the photo. We will use adaptive management steps, if there are indications during construction that we are exceeding our total suspended solids, water quality triggers during construction, and if water quality is below the trigger during dewatering, we'll manage our water by discharging it into the south basin, and during dewatering, if we don't meet our limits or triggers are exceeded, we'll discharge treated water into Mammoth through our Mammoth diffuser. We will meet our licence criteria during dike construction and dewatering of the north basin.

We will also use the experience of constructing diversion channels that my colleague Michel Groleau presented around the -- our facilities at Meadowbank. We'll use the diversion channels and ditches, that experience, to also construct another diversion channel located here, which will divert the back-flooded area of South Whale Tail Lake through a diversion channel and into Mammoth Lake during operations, and I'll describe that in the next few slides as well.

We're going to use our experience from Meadowbank, which tells us that we should take a simple design of a two-to-one slope for this channel to connect Lake A20

to A45. We'll excavate an armour to ensure erosion protection.

This figure here or schematic shows the Whale Tail dike located here and the project during operations. So in 2020, the water will be flooded to this elevation and will spill into -- it's A45, Water Body A45, and then be directed to the Mammoth Lake. Historically, the water -- what we found through baseline studies is that the water flows in this direction, historically, as shown in that digital rendering, flows through the north basin into the Mammoth channel and through Mammoth. And by building the Whale Tail dike, we're raising the water level and diverting the water into the south of Mammoth Lake. What this means is that the water level natural elevation which right now is at 152.5 metres above sea level will be raised by 3.5 metres to an elevation of 156 metres above sea level. This will increase the area of the lake -- of the water bodies here by 40 percent, which is from 369 hectares to 153 hectares. This will take a few years to raise that water level naturally, and by July 2020, the water will spill into our -- into our constructed diversion channel and into Mammoth.

So you can see from this schematic the Whale Tail dike will be constructed in 2018. We'll begin raising the water level in 2019, which is represented by this

yellow line here. And by 2020, the water level will raise in July, approximately July 2020, will raise such that the water will spill into the constructed diversion channel through the Pond A45 and into Mammoth Lake.

The Whale Tail Lake south basin will remain flooded for a minimum of two years, but we'll continue to work with the Nunavut Water Board and, in particular, INAC and the KivIA as it relates to closure. The length of time the flooding will be maintained will be dependent on closure monitoring of the pit, which is in this area. It'll also be determined through monitoring during the operations of the inflows. We'll understand the inflows. And, ultimately, we'll make decisions on the timing of the reflooding and how the system will look during closure. And my colleague Erika will provide a bit more information on timelines in the next deck as well related to closure.

So this table here really just summarizes what I just presented in words or -- and won't spend too much time on this.

This was a table that was requested by the Nunavut Water Board during the prehearing conference related to the water-taking in Nemo Lake, and what this tells us is that the natural inflows into Nemo Lake can sustain

our water-taking proposal. So the inflows are represented here, and our water-taking is here. And what it shows is that we're well within -- we don't expect any changes in water level in Nemo Lake or changes in the system as a result of water-taking from Nemo.

So in the next few slides, these are going through the details that have been presented in the May 25th submission to the Nunavut Water Board related to water use. And what this -- just have to look at this. What this is demonstrating is our water use requirements during the operation of the Whale Tail facilities. So we're required to take water from Nemo Lake in the beginning stages of the mine operations through 2022, and right now our projections are -- and this will be based on water quality data, as well as waste rock monitoring. We will determine our closure requirements in 2022 until 2029, as described by Jamie earlier, and will be described a little bit further in detail by Erika. So all of these tables here have already been provided to the Nunavut Water Board in that submission in May.

In order to mill the ore at the Whale Tail Pit, we required continued water use for milling at the Meadowbank facilities, and that was described by Jamie, as well as described a little bit by Michel. And our

current Type A water licence at Meadowbank requires the following volumes, and as per our letter on May 25th, we're not requesting any change in water use. And we'll work within the water use that's already approved by the Nunavut Water Board under our Type A 2AM-MEA1525.

So now we've gone through our water use, and I've tried to explain our water use for our project. And now we're back, kind of, thinking about some of the water management at Whale Tail Pit. And what's really important to understand in terms of our water management is that we've gone through a thorough, what's called "multiple accounts analysis" to determine how best we can manage our water at Whale Tail. What we did was we -- we analyzed four different options, and the options are as follows: The first option that we analyzed was simply creating a channel directly from Whale Tail south basin to Mammoth. We also evaluated an option of pumping, actively pumping, from the Whale Tail south basin into Mammoth. We also looked at creating a larger dike and back flooding so that the water would spill into a different watershed to the south. And then, ultimately, we -- we selected the other option that was analyzed, which was Option 4, which I described earlier, which turned out to be, according to the multiple accounts analysis, the best

option for water management at our Whale Tail Project. That document has been provided to the Nunavut Water Board.

Now, in order to -- as described in the earlier slides, we'll be dewatering the north basin by moving water from the north basin into the south basin. But before we dewater this area, we will complete a fish-out, and that's something that Agnico Eagle has quite a bit experience at through our Meadowbank project. And, certainly, given the importance of fish to the local Inuit, we have developed specific fisheries offsetting plans in fish-outs. We've worked with the Fisheries and Oceans and the Kivalliq Inuit Association to develop these plans and worked closely, especially the last two fish-outs at Meadowbank, we worked very closely with the Hunting and Trapping Organization to enhance and improve our fish-out practices.

Based on community feedback and in following Department of Fisheries guidance for fish-outs, we believe our plans will offset for the loss of fish habitat during operations and enclosure. A fish-out is planned to begin in the open water season of 2018 when the dike will be constructed. So as soon as the dike platform is constructed, we'll begin moving fish from the north basin into the south basin. And we will use

the -- the success of our past to guide some of our fish-out practices.

The updated fisheries offsetting plan will include on-site habitat creation, which means that we'll create new habitat within the north basin. We're also working with Fisheries and Oceans to understand and improve the Mammoth channel. So we'll raise the water levels so that we can enhance fish movement between Whale Tail Lake and Mammoth Lake. And we're also working with Fisheries and Oceans and the Kivalliq Inuit Association and the hamlet on complementary measures that will be off -- that will offset the loss of the fish habitat due to the pit being in that north basin.

Agnico Eagle is committed to the concepts presented in the offsetting plan and are confident the loss of fish habitat due to the Whale Tail Pit operations is offset. And Agnico Eagle will continue to work with Fisheries and Oceans and the Kivalliq Inuit Association to finalize the offsetting plan during the authorization phase of the project.

More specifically, we will work with Fisheries and Oceans -- we've worked with Fisheries and Oceans to -- to improve our methods for calculating the fisheries losses, and these -- these methods have been reviewed and endorsed by experts, including Cam Portt and Dr. Ken Minns. We have adjusted our methods in

offsetting calculations based on Fisheries and Oceans' feedback, and that includes -- we've adjusted our equal weights for species.

Habitat losses due to enrichment were examined after water quality predictions were updated to account for treatment and habitat losses, and we don't expect any habitat losses associated with the downstream environment. And as I mentioned, we also have a series of complementary measures that we're working with Fisheries and Oceans and the Kivalliq Inuit Association and the hamlet on, and those would include research projects with the University of Manitoba, sustainability projects that are intended to provide direct benefits to the community of Baker Lake. And, in fact, for the past few years, we've heard concerns from the hamlet regarding the water quality of Airplane Lake, which is downstream of their sewage treatment facilities. We've heard those concerns also as it relates to drinking water in Baker Lake itself. And as a result, Agnico Eagle is very committed to enhancing and remediating that sewage treatment plant. And, in fact, yesterday my colleague Michel Groleau and I and a series -- and a number of researchers met with the hamlet to discuss those concepts and to develop studies so that we can enhance and remediate the sewage treatment in Baker Lake. And, certainly, especially

after the meeting yesterday, we're very excited about this opportunity. And the hamlet is very supportive of making these changes as it relates to improving the downstream fisheries, as well as the downstream water quality.

And, lastly, we will work in partnership with the Kivalliq Inuit Association, Fisheries and Oceans, and other researchers, including the Arctic Research Foundation, to continue to ensure the protection of Baker Lake and collect additional monitoring data associated with that.

Our monitoring for fisheries will include water quality monitoring. We will conduct monthly water quality monitoring around the Whale Tail Pit site and in the pit during flooding and closure. And a commitment made during the review process was also to conduct stratified water quality monitoring in Whale Tail Lake, Mammoth Lake, Nemo Lake, and as part of the core -- this will be part of the core receiving environmental monitoring program.

As a result, we proposed a number of terms and conditions to meet some of the comments that we received from Fisheries and Oceans, and that includes we will continue to work with the Department of Fisheries and Oceans and the Kivalliq Inuit Association to finalize the offsetting plan for approval prior to

construction, and we'll provide contingency offsetting to -- if unable to demonstrate sustainable fish habitat in post-closure.

Ultimately, what that means, and Valerie is going to provide a bit more information on that, is that through monitoring our site, we'll use the data that we've collected in baselines to inform our modelling, and any monitoring that we collect during operations, we'll continuously update our modelling and evaluation, which then influences our planning. And then we'll be able to adapt. And that was described very well by my colleagues Erika, Valerie, and Michel on how we adaptively manage for waste, and we'll continue to do that through the operations at the Whale Tail Pit.

And now I'm going to pass it to my colleague Valerie to -- for the next half hour, 20 minutes.

Mat'na.

MS. BERTRAND: Good afternoon, Mr. Chair, Board members. My name is Valerie Bertrand on behalf of Agnico Eagle.

So the next few slides -- number of slides will talk about water quality and the steps that were taken to estimate what that future water quality might be and what control mechanisms would be appropriate to ensure no effects to the receiving environment.

You've seen this before, and it's to reiterate the

point that the pit rock management plan -- as we talked earlier, the waste rock can have some effect on water quality. So the pit rock management plan and the rock testing plan, previously explained by Erika, are designed to successfully execute waste rock segregation and implement progressive closure during mining so that the effects of the closure plan can be monitored, and you can verify, get satisfied that it's going according to plan, that things are going well.

A very similar plan to what was explained has been really successful at the Meadowbank mine. This is why we feel that this plan will be successful at Whale Tail, because of the similarities between the two sites.

In addition to that, university research is currently ongoing on the cover design and on freeze back -- the rate at which freezing happens, the intensity of freezing. This information being collected now at Meadowbank will certainly inform the design at Whale Tail. So even if Whale Tail life is short, there is a history of information that will be used to predict what will happen and to guide designs in Whale Tail so that the closure scenario can be successful and have minimal impacts on the receiving water quality.

So these aspects, along with a great deal of

commitments that were made in response to intervenor comments and requests, have satisfied the agencies.

Now, on water management. This, of course, is an important issue to avoid long-term effects to downstream lakes from the effluent discharge during operation and after operation to determine what kind of water quality is going to happen in the flooded open pit and to make sure that the dikes can be breached and that post-closure can be initiated.

So an estimate of the possible future water quality was completed to identify the potential effects, as was done for Meadowbank project for approval a number of years ago. So both at Meadowbank and at Whale Tail, water quality models are completed to see what the potential impacts could be. In fact, both of these models in Meadowbank and Whale Tail were completed by the same team. The Whale Tail Project model is based on site-specific information and very conservative assumptions on what will happen at site; basically, the same initial assumptions that were used for Meadowbank.

The predictions suggest that on a worst case or on a worst-case scenario, arsenic and phosphorous will require treatment prior to discharge. So as a result, Agnico Eagle has committed to treating arsenic and phosphorous prior to discharge during operation.

Additional commitments have been made to ensure that long-term water quality objectives are met. So far, this, along with these commitments, have satisfied the intervenors.

The model predicts that after treatment, when concentrations are lowered, the effluent into Mammoth Lake during operation will meet the environmental quality criteria that have been agreed to with Environment Canada. It will also meet the federal water quality guidelines that apply to the receiving water body, as well as the site-specific arsenic criteria that was developed for the site.

Now, the basis for assessing whether water quality control was necessary, as I said, is the predictive model. Water quality predictions or assessment of what water quality is likely going to be was made at locations where water will accumulate on-site. So these places include -- we estimated water quality within the open pit where water just accumulates in the pit and needs to be pumped. We estimated it here in the attenuation pond. The attenuation pond collects water from all the other sites before it is treated and discharged. We estimated the water quality at the waste rock storage facility and, of course, at the effluent discharge point and within this lake, Mammoth Lake, and in the downstream lakes.

At the downstream lakes -- excuse me. I'm having trouble with this. So this is the mine site, and we estimated water quality all along the flow path of water all the way down to this large lake called "Downstream Lake". So we have water quality estimates of the effluent, and then in each of these lakes, as it flows down. At this point here, the water actually flows in two paths -- on two paths. This way, to Node 2, we call it "Node 2", to differentiate it from this way, to Node 1. But it's the same lake.

So later on I'll present some results, and you'll see water quality at different lakes. This is what it represents. It represents at the source and then farther down the lake -- the chain of lakes.

The first point of contact of mine water into these downstream lakes is at Mammoth Lake. The water -- after treatment from the attenuation pond, the water gets discharged here in this basin of Mammoth Lake. We call that "the effluent mixing zone". So regulations are such that the water quality at the pipe is regulated. It must meet certain criteria. And then there's other criteria for water quality at the edge of the mixing zone into the -- into the lake.

So when we perform water quality models, the output that we get is something like this. It's time -- in time, and then these are concentration.

Concentration is, you know, from very low concentrations to quite high concentrations, and these dotted lines represent criteria. So the metal mine effluent criteria is one of them. The Portage water licence criteria. The -- and then the site-specific water quality objective, down here, criteria that's for the receiving environment after the discharge and once it's mixed into Mammoth Lake.

This particular graph is for arsenic. So we'll focus the discussion on arsenic and phosphorous because, as you'll recall from the earlier presentation, all the other metals are really low. They meet criteria. Arsenic requires treatment, and, therefore, we focused on arsenic.

The results here show -- so these results -- each of the lines represent a different area. This area is the pit sump. This area is the water quality coming from the rock pile. And these are the downstream lakes. So we can see that the water needs to be treated before it is discharged. We can see that the rock storage facility is just about at the effluent criteria, and the downstream lakes do meet the site-specific water quality objectives.

This is another way to look at results, where this -- imagine this is distance from the discharge point and at each of the lakes that you saw earlier

that were circled. So this is a discharge point, at the effluent. It's going to be meeting the effluent criteria. And then as soon as you're out of the mixing zone, it meets the water quality -- the site-specific water quality objectives, and then it gets diluted the farther away you are from the mine site. So these results tell us the water quality will be fine in the receiving environment and downstream of it.

That was the base case of our model. Then we presented -- the results were presented to the intervenors. Intervenors had a number of questions. There was a lot of interaction with Environment Canada, with Indigenous and Northern Affairs, with the Kivalliq Inuit Association. And the model was tested to see what would happen under various scenarios that are not necessarily the scenarios that will happen but just to test what if this was to happen. What if a worst-case condition was to happen? So we did these tests. And a number of the following slides speak to that, those scenarios that are hypothetical, that may or may not happen.

So these outline the sensitivity scenarios that we did just over the summer after the prehearing of April. So those scenarios include -- the first scenario is what if the waste rock storage facility does not get treated and discharges directly to Mammoth Lake after

closure, once the dikes are breached, it goes directly into Mammoth Lake. Will that affect water quality of the receiving environment?

The second scenario was what if some of that rock that releases arsenic gets mixed in the cover? You heard earlier how Agnico has a good plan to really differentiate the rock that needs to be managed and the rock that is good and will be used for cover. Well, what if there's some of this bad rock that gets mixed in with the cover? What does that do?

And the third scenario is the pushback. So there's the pit wall -- there's the pit that you saw on the dotted line, earlier this morning, and there was the rock there that was leaching. And the proposal is to push that pit wall north and remove that rock. What would happen then?

So this is the result of the first scenario. The first sensitivity analysis on allowing waste rock contact water to be just released into Mammoth Lake without handling it, without treating it. We expect that the water quality -- so the results show this red line that, you know, water quality can be -- the water quality can be -- will have higher arsenic than if you treat it. Except of interest -- of most interest is that the downstream lake's post-closure still need site-specific water quality objectives.

So in that scenario, if you don't -- if the water quality of that pond is not treated, the effect will be minimal to the downstream lakes. So the risk to water quality of releasing non-treated contact water is low, whether you have 2 metre or a 4 metre active thaw depth in the cover or in the waste rock.

Now the second scenario. The second scenario was to see the effect of a cover not being perfectly clean. So the results of that are here -- are described here. If some of that leaching material ends up in the cover, this will indeed bring arsenic concentrations higher. These show how high, if there's 2 percent -- an estimated 2 percent of that leaching rock in the cover or 5 percent of that leaching rock. The concentrations definitely are higher, and there's more arsenic in the receiving environment.

In this unlikely scenario where material is not properly controlled and higher leaching waste rock gets mixed into the cover, they said there's a possibility that waste rock contact water will be affected. This is why -- this is the reason why a prescriptive waste rock management plan has been set up, has been implemented -- or will be implemented at Whale Tail, to ensure that rock is placed at the correct location according to its end use. This plan's an important component of the successful operation of the Whale Tail

Project. It has been effective at Meadowbank, as described by Erika.

In addition, we know that the model is very conservative and that should even a little bit -- we think that these numbers are certainly higher than what we would expect in reality given the site conditions that are quite different from the conditions in the laboratory where we're trying to force release of metals.

So what is the risk associated with this? Well, we're confident that the risk of improper placement at site is relatively low, and we're confident that the model is very conservative and that the effect of a little bit of mixture will be -- will not be of great importance to water quality. Agnico Eagle has extensive experience in the arctic at the Meadowbank mine, which has somewhat similar waste rock. In addition, ongoing university research right now on the freeze back and the cover performance will be applied at Whale Tail and water management -- you know, prescriptions of the water management plan will help to see that this is being done carefully.

The third sensitivity analysis was the effects of the pushback. Recall that this scenario was discussed at the prehearing conference as a contingency measure to improve water quality in the open pit. The scenario

was modelled at the request of intervenors and to see what the water quality would be like. So the scenario considers two things: The exposure of a different rock in the open pit, so what that does to the pit water quality; and the placement of this additional rock on the rock storage facility. Remember that there's already going to be some of that in the waste rock. We're just putting more on to the waste rock pile. Okay.

So the results suggest that if you remove that rock from the open pit, there's going to be an improvement, actually, in the water quality of the open pit, because there is less material, less bad material, in the open pit. And it actually also improves the water quality of the rock storage facility because there's not that much in the open pit. It's just a thin layer. It gets removed. And because of the pit's slope requirements, they have to remove more rock behind it. So in proportion, you end up having less proportion of that material in the rock pile. So the water quality has actually improved.

So there's a 20 percent improvement, and this is the testament of -- you know, of the output of the model. The improvement really of the rock storage facility is seen during operation, predicted during operation, not at closure, because at closure, it's a

cover. Regardless of what's underneath, there's the same cover. As I said, the removal of this -- the pushback of this north wall improves the water quality in the pit by about the same, 20 percent, so 20 percent less arsenic. And, consequently, of course, if the pit lake is better quality, then the downstream receiving lakes will also be better quality. The flooded pit lake, the water quality of that pit lake is expected to meet site-specific water quality objectives for arsenic and to meet the federal criteria for the protection of aquatic life under fully mixed conditions.

Within that pushback, there's another kind of subscenario that was tested to -- which is a hypothetical but unlikely diffusion scenario where arsenic would actually come from the rock, like, just slowly come out from the rock. This scenario yielded elevated concentration of arsenic in the flooded pit lake post-closure. However, after collecting more data on hydrogeology, this scenario was established early on, before obtaining a bit more information on hydrogeology and groundwater flow. Now, after collecting this information, we are confident that this scenario will not occur. We believe that the risk of occurrence of the sensitivity scenario is low, and we are confident that the plans submitted to the Water Board will be effective in preventing negative effects

to water quality. Based on the current understanding of local groundwater regime, the flooded pit will act as a groundwater recharge zone post-closure. As a result, diffusion is not expected to result in an accumulation of significant amount of arsenic in the pit lake over time.

So the next few slides explain why. This is a schematic here of the groundwater flow regime at the Whale Tail Project post-closure, when the pit is fully flooded. So this is the pit here. Imagine a section, a long section, along the Whale Tail Lake, the top or the left here is where the open pit will be, and at the bottom is the south portion, the south basin, of Whale Tail Lake. So the groundwater flow direction is dictated by groundwater -- or lake water levels around the -- around Whale Tail Lake. The arrows here show expected groundwater flow direction. This is permafrost here.

So post-closure, when it's fully flooded, the lake water elevations around the Whale Tail Lake are such that we expect that groundwater flow will go down before it meets the -- the regional groundwater level. This here is a cross-section, if you look at down here. This is -- these are two cross-sections. So this cross-section here is through the open pit, and this one is the open pit and the south portion of Whale

Tail. This is the berm here, this berm. Okay. It shows the anticipated groundwater regime defined from baseline lake level, the groundwater from -- also from groundwater and permafrost information that was collected -- that have been collected for a few years now. It shows the model domains as they relate to the pit and the Whale Tail Lake post-closure. Arrows show the direction of groundwater flow under the pit and under the lake, derived from available baseline data.

So with this information, Agnico Eagle is confident, we're confident, that the scenario of this diffusion of arsenic and groundwater flow, you know, is unlikely -- highly unlikely, to occur. Notwithstanding this, Agnico has committed to collecting additional hydrogeological information, permafrost information, and site water quality data during operation to validate this assumption and validate the results should the project be approved. This information, together with commitments on water quality and groundwater flow monitoring, has satisfied the intervenors.

A few more to talk about the model, because of its importance.

An example of how the water quality model that was built for this is conservative and it is likely to overestimate water quality is illustrated in this graph

here. This graph was -- is the original predictions from the Vault area. So in 2008, sitting in front of the Board, again, we produced these concentrations, these -- these results, based on our water quality model. So I'm having trouble with the pointer here.

So these lines show the kind of level of prediction. There were many models, but this refers to -- for the intervenors' reference, this refers to a model that used laboratory information, not site information. We used laboratory information for the Whale Tail model. So these are what was predicted, and then these dots are what was actually measured in 2015 at Vault. And we can see that the measurements are really very low. I mean, it's here, but it's less than what the laboratory could measure. So we -- from this, it supports our expectation that the model is really conservative. And the reason why we do a conservative model is because the one thing that we don't want to happen is that we underestimate and then we need to catch up. So it's best to overestimate, have everything in place, have water treatment in place, and then if you don't need it, it's -- that's the way it is. You don't want to have a system -- a situation where you say it's fine, and then you need to bring in water treatment after the fact. So that's the reason why we built these models in a conservative fashion,

and these real data tell us that, yeah, that's as we expect; we expect the water quality to be better than what we have predicted.

The same can be seen here for the Portage area. Now, some are within the same order of magnitude. They are -- the pits have changed. The pits are much bigger now at the Portage area. But a lot of them still are very, very -- much lower concentration in reality.

Okay. Done with the model.

The next slide speaks to water treatment. The intervenors had interest in knowing what is going to be proposed for water treatment. So this illustrates Agnico Eagle's commitment to treat water quality. This water treatment plant, the Veolia water treatment plant, will attenuate arsenic concentrations, will decrease arsenic concentrations, and will also treat the suspended solids or the mud in the water. The Veolia water treatment plant will be built at Whale Tail to control arsenic and suspended solids. It will operate during construction in case it's needed when dewatering. At Meadowbank, in the early days, there was some treatment of suspended solids towards the end of dewatering. Some muds were brought along with the water. But, actually, the process was perfected at Vault, and the water treatment wasn't used. But it will be available for use during construction. And

will also be used, if needed, to treat the arsenic during operation and closure and post-closure, but hopefully not.

The treatment plant is fairly straightforward. It's standard technology. Water comes in here. A chemical is added to retain the arsenic. The filter system is put in place to remove the suspended solids, and clean water gets out. The treatment plant will only be operated during open water season, that is, June to September. No winter discharges. So this is -- oh, and the expected treatment levels, just before -- so this will be -- will take attenuation pond water and treat it just before discharge into Mammoth Lake. And the treatment level is 0.1 milligram per litre of arsenic. Current MMER is 0.5, and Agnico Eagle has proposed a water treatment of 0.1. So better than metal mine effluent regulations. And this has been agreed to with Environment Canada intervenors.

Now, remember, there was phosphorous as well. So phosphorous will also be treated. Phosphorous comes from the sewage water, actually. It's a big source of phosphorous. It also comes from some of the rocks in the suspended particulates. There could be phosphorous in there. This will be treated at the sewage treatment plant, so at the camp, before the water goes into the attenuation pond. So there's two treatment plants:

One before discharge for arsenic and suspended solids, but the phosphorous gets treated at the source, at the camp, and then that water goes into the attenuation pond. In fact, the system selected -- there's a system that has been selected. It's been purchased, and it will be installed shortly at the Whale Tail site. That system is called the Newterra water treatment plant. It's a membrane bioreactor. It's a bioreactor. It will treat phosphorous to 1 milligram per litre, but it will also remove ammonia and nitrate from the sewer. It's a typical sewage treatment system but can also treat phosphorous. That said, the effluent from the sewage plant will be discharged to the attenuation pond and then to Mammoth via the diffuser. You have there the limits of treatment or the treatment levels.

So the next slide is just a schematic of what system looks like. I'm not going to go into details, but basically the water enters and goes through all these chambers to remove some suspended solids and the phosphorous, as well as the ammonia and the nitrate.

So after treatment, what does the water look like? Total phosphorous concentrations are predicted to be at the zero to slightly above the 0.01 milligram per litre in Mammoth Lake, but that's -- and slightly lower in downstream lakes. So that's the downstream lakes here, and we can see -- so from the discharge point into

Mammoth Lake and then downstream lakes.

This is a -- it is -- we expect that the water quality is going to be better than this because of two things: Because in the model we assume that all the chemicals that are discharged get immediately transported to all the downstream lakes. There's no effect of, you know, taking its time to migrate through the system. It's a conservative assumption that comes out in one lake, and it's present in all lakes immediately. And it also assumes that there's a lot of particulate in the water, which carries phosphorous. But we know for a fact, based on what we see at Vault, that particulates in water are not that high.

So the environmental quality criteria that are proposed for the project, so those -- those criteria would -- would apply at the effluent discharge into Mammoth Lake. So those would be in the water licence, these numbers. A full suite of these environmental quality criteria have been agreed to with Environment Canada. They are presented right here. The criteria for mercury, here it says, "For further discussion", and, in fact, we have discussed with Environment Canada prior to just recently, prior to the Board hearings, and a number has been agreed to. They will be the same as the Meadowbank Vault discharge criteria. So we have resolution now on these. It'll be .004 average and

.008 maximum. So with this, there is now a complete list of -- well, approved criteria, approved with Environment Canada. And as I said, these criteria were included as part of one of the exhibits, the exhibit of the water licence framework that was provided to the Water Board just earlier at the beginning of the session.

Another question was that site-specific -- just have two slides left. Another question was site-specific water quality objective. So a site-specific objective for arsenic was developed for Whale Tail. There exists one in the federal water quality objectives, there exists one. It's 5 PPB. But a site-specific one was developed to make sure that water quality was not affecting fish and aquatic life. A method was used; the method used to develop that criteria followed what's called the "species sensitivities distribution protocol", which is a standard method recommended by the Canadian Council of Ministers of the Environment.

So a value of 25 PPB or parts per billion or 0.025 milligrams per litre was derived. This value was discussed with Environment Canada and agreed to and will be applied in the receiving lake at Whale Tail. So at the discharge point, the arsenic value will be 0.1, and within the lake, the guideline value will be

0.025.

This has been discussed previously. It's the results of phosphorous. And we see that during operation, phosphorous increased because of the sewage, decreases during closure, and then falls off as the water quality is rejuvenated in the lake.

Last slide. In summary, site activities are not expected to result in negative effects to water quality in receiving lakes downstream of the project during all stages of mining. Sorry. Last of my slides. Two more for Ryan. We'll discuss some of the key commitments made as part of intervenor review process. Thank you.

MR. VANENGEN: Thank you, Valerie.

Ryan Vanengen from Agnico Eagle.

So just two more slides.

In summary, as Valerie pointed out and you can see from all of the information that we've provided, we've worked extensively with the Nunavut Water Board and, in particular, with Indigenous and Northern Affairs Canada, as well as Environment Canada and the Kivalliq Inuit Association to work on revising our models and ensuring that we'll protect the receiving environment. This is just the first step. We're going to continue to look at those data; we're going to continue to work with Nunavut Water Board to ensure that we -- the data that we collect is analyzed properly and that we

compare to the conservative predictions that Valerie described. So that's a normal standard practice that we do on these sites.

The other point that Valerie made too -- and she illustrated that really well in that one slide where -- with the Vault example where -- I can go back to it since I have the controls. These ones here. She illustrated very well with -- is that the one, Valerie? Yes. This one here. Where all of the slides before that were showing what we predict in the beginning, in the baseline, so using conservative estimates. And what we actually see, as Valerie described, in Vault pit sump are these water quality estimates. So our commitment for Whale Tail Pit is to do just the same: Continue to monitor, collect the data, and compare it to what we predict. So that's our commitment, and I think we've demonstrated that commitment with all of the information that we've provided to the Nunavut Water Board.

The other thing that Valerie mentioned as well was that we would -- we would treat our water. So if our predictions show that we need to treat to make sure the receiving environment is protected, we're going to do that. And she showed those schematics of the treatment facilities that we're committed to install.

And in addition to that, you can see a list here

of other commitments that were discussed in the final submissions as well.

So, really, in summary of the last two decks, so where we started with Michel presenting and with Erika presenting, Valerie presenting, myself, and then Valerie again, what we -- what we really wanted to demonstrate to the Board is that we've done a very thorough job of understanding our project and also what we want to emphasize is that we have experience. We have a lot of experience with all these things that we've discussed, and we have lessons learned from the Meadowbank mine where we -- we handle waste all the time. Erika showed many great slides showing what we actually do, what our truckers actually see to make sure waste is brought to the right spots. Michel also described how we're going to handle, very well, our tailing storage facility at Meadowbank, and this is already licenced under our Type A water licence 2AM-MEA1525, and we're going to continue operating according to that licence.

And lastly -- or not lastly, Val explained that we'll going to continue to monitor and continue to model, like I showed earlier. And the important part is that we're not just making decisions based on what we think is going to happen. These are fact-based decisions. This is based on engineering and science

and the best models that we can possibly use so that we make sure that the receiving environment is protected.

We will work with -- continue to work with the Nunavut Water Board, INAC, and Environment Canada to ensure that the closure meets our goals to protect the environment in the long-term closure and post-closure period. So that's our goal. During operations, make sure we protect so that our models tell us and we'll prove up our models that in closure and post-closure, the site will be able to be returned back to the way it was.

We will also work with Fisheries and Oceans to ensure the losses to the fishery are offset.

And, ultimately, what all of this information provided to the Board shows is that we do not expect any significant water quality impacts in the receiving environment, and it's Agnico Eagle's commitment to monitor that and to make sure that the water quality into the future, as well as the fish and the food that the fish depend on and the habitat that the fish survive in, is protected.

Mat'na, Mr. Chair and Board members.

THE CHAIR: Thank you for your presentation.

Before we go into questions and concerns from the audience, we shall take a 15-minute break.

(ADJOURNMENT)

THE CHAIR: So we have questions and concerns to the applicants. I'd like to move on with it.

So I will start with the KIA. Do you have concerns or questions? If you are not ready, I can ask INAC.

INAC, do you have questions or concerns?

MR. PARSONS: Thank you, Mr. Chair. Ian Parsons, Indigenous and Northern Affairs Canada.

We have no comments or concerns at this time. Thank you.

THE CHAIR: Thank you.

And then Environment and Climate Change Canada.

MS. PINTO: Thank you, Mr. Chair. Melissa Pinto, Environment and Climate Change Canada.

We have no questions at this time.

THE CHAIR: Thank you.

And DFO.

MR. D'AGUIAR: Thank you, Mr. Chair. Mark D'Aguiar for Fisheries and Oceans Canada.

We don't have any questions at this time.

Thank you.

THE CHAIR: All right. Thank you.

And then public. Is there concerns? Questions, concerns from the public? There's none? Okay.

KIA, do you have questions, concerns?

MR. TULUGAK: Jeff Tulugak from Kivalliq Inuit Association. (OTHER LANGUAGE SPOKEN).

THE CHAIR: NWB staff, questions, concerns?

Nunavut Water Board Questions Agnico Eagle Mines Limited

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, Nunavut Water Board staff.

A few questions, please. Can you go back to Slide 55. Slide 55. Just a clarification. The value for cadmium, how many zeros you have after dot? Can you double-check, please.

MR. VANENGEN: Ryan Vanengen from Agnico Eagle. We're just going to double-check to see if that number is correct. We'll get back to you momentarily. Is that okay?

MR. KHARATYAN: Mr. Chair. Karen Kharatyan again, Water Board staff.

Can you go back to Slide 50, Ryan, please. Just for clarification, this expected level of treatment is for attenuation pond during operation or also for waste rock storage facility sump during closure? Closure/postclosure?

MR. QUESNEL: Thank you, Mr. Chair.

Yeah, for both, for operation and closure.

MR. KHARATYAN: Mr. Chair. Karen Kharatyan, Water Board staff again.

Again, follow-up question. So how confident is Agnico Eagle that with this treatment target or level they will meet the site-specific quality criteria which is 0025?

MR. QUESNEL: Thank you, Mr. Chair.

Yes, we're confident for operations and the closure phase.

MR. KHARATYAN: Karen Kharatyan. Mr. Chair. Water Board staff again.

Can we go to Slide 21, please. Question about conducting stratified water quality monitoring. This is for north basin Lake Whale Tail -- Whale Tail Lake?

MR. VANENGEN: Yes. Ryan Vanengen from Agnico Eagle.

The commitment there was related to Fisheries and Oceans and Environment Canada question around monitoring within the core receiving environment program, and as we do at Meadowbank, we'll do stratified water quality monitoring. At Nemo Lake, South Whale Tail Lake, as well as Mammoth Lake. And then into closure scenarios, we'll also do stratified monitoring in the pit as well, as we're actively flooding in closure.

MR. KHARATYAN: Mr. Chair, thank you. Karen

Kharatyan, Water Board staff.

Could you little bit describe this stratified monitoring, Ryan. How many levels -- how deep each levels from each other?

MR. VANENGEN: Yes. Ryan Vanengen from Agnico Eagle.

Normally when we're doing the, what we call "receiving environment monitoring", so when we're looking in Mammoth Lake, what stratified monitoring means is that we collect a water sample at the surface, maybe at 3 metres below and then down below. So we get an understanding of the entire -- kind of, the water quality at depth which can change because of inputs due to our effluent. So that's what stratified monitoring means.

We also use tools, so we water sample at different intervals, but we also use tools, like meters that monitor at .5 metre depths, and it tells us a lot about the water quality also as we move down in depth. So there's kind of a number of tools that inform our stratified monitoring.

Mat'na.

MR. KHARATYAN: Mr. Chair. Karen Kharatyan.

A follow-up, Ryan. Would Agnico Eagle be able to include this information for north basin Whale Tail Lake, the stratified monitoring requirement within

water quality and flow monitoring? Because this is not related to CREMP information. This may provide information about in future during closure/postclosure phase whether there is a mixing between pit lake -- pit water and lake water. So this -- including this -- within the water quality flow monitoring plan will provide information to parties when reviewing this information to see how this develops, whether there is potential or there will be -- or there's a tendance to have mixing or not between pit and lake water. And also to include definition or description of the stratified monitoring within the monitoring program. I think it was ST10 or 9 for north basin. I am just looking for north basin Whale Tail Lake -- Whale Tail Lake monitoring station.

MR. VANENGEN: Ryan Vanengen from Agnico Eagle. Mr. Board and Board members -- sorry. Mr. Chair and Board members.

The request by the Nunavut Water Board technical advisors is -- in our view, goes beyond what a water quality and flow monitoring plan is set out to do. Water quality and flow monitoring plan should not, and typically doesn't, include stratified sampling. The reason why that is, it's a compliance driven kind of decision-making framework. So what we ensure is that all the site water here stays in the site and reports

to the attenuation pond. It's really not until it discharges into Mammoth Lake that it becomes receiving environment. Everything in here is controlled by the mine operators, Agnico Eagle. And we make sure that that water quality is clean, and we report all the data. These are point sourced kind of samples that inform our models.

What the Nunavut -- what I understand the Nunavut Water Board technical staff is asking is that they want stratified sampling to occur in the area during operations, and that doesn't make sense. There's no -- it's not a lake. So we can't -- we can't go and do that depth monitoring that I described earlier 'cause it's not a lake. These are point sources of water. But what we are committed to doing in our core receiving environmental monitoring program, which means we're going to monitor in the south basin, as well as Mammoth, as well as in Nemo and other lakes as well, we will make sure that those lakes are clean, and we do that through that stratified monitoring.

That said, into closure, if I go to -- hopefully I can find a slide with closure on here. I don't think it's in this deck. But under the closure scenarios -- I'll go back to this slide here. In the closure scenarios, this area here is going to be flooded. And under that scenario, we're certainly interested under

the -- once it's flooded, and while we're flooding, we'd be interested in doing that stratified monitoring, and that we could make exceptions on the water quality and flow plan during closure. That seems fair. But to put -- build into a licence to do stratified monitoring in these other locations doesn't seem to fit with what's commonly done, and it wouldn't make sense either in the field.

Mat'na.

MR. KHARATYAN: Mr. Chair. Karen Kharatyan, Nunavut Water Board staff.

I should clarify. I mentioned it. I am looking -- we are looking just north basin Whale Tail Lake for closure, post-closure. We are not looking for this information for operation or the other lakes. Because your hypothesis about no diffusion happening in the peak and no mixing happening between the peak water and lake water above is still hypothesis. So this stratified monitoring will allow to see a little more at the time, at closure/postclosure time.

MR. VANENGEN: Mr. Chair, that seems acceptable to us. And what we would think to do is -- or we'd recommend, perhaps, is to work with the Nunavut Water Board during the closure phase to develop what that monitoring would look like, exactly what it would look like into closure. But we're certainly open to

working with the Nunavut Water Board to define that closure monitoring in the north Whale Tail Lake basin.

Thank you.

MR. KHARATYAN: Thank you, Mr. Chair. No more questions.

At this time, maybe you could follow up with the cadmium value.

MR. QUESNEL: Thank you, Mr. Chair. If we can -- on Slide 55, dealing with your question regarding cadmium, yeah, that was a mistake. So the mean -- Slide 55. There's one too many zeros. So it's .002 and .004. However, in the water licence framework that we submitted, we have the right concentrations, the correct numbers. Okay.

MR. VANENGEN: Two zeros.

MR. QUESNEL: Yeah. Two zeros, yeah. Two zeros, not three, two zeros.

THE CHAIR: Thank you.

The Panel members, do you have questions? No. Okay. Thank you.

So, applicant, you have more presentations to do. Go ahead.

Presentation by Agnico Eagle Mines Limited (Abandonment, Reclamation, Closure, and Security)

MR. QUESNEL: Thank you, Mr. Chair. We have four more presentations. So the next one's on the

reclamation closure and security.

MS. VOYER: Thank you, Mr. Chair, Board members. Erika Voyer, Agnico Eagle.

In this presentation, as Jamie mentioned, we will discuss the reclamation, closure, and associated security for the Whale Tail Project.

We had a chance to see that slide in the previous presentation. So this is the map showing the road from Meadowbank to Whale Tail. So the closure and the security includes the component of the Whale Tail Project and also include the component of the Whale Tail haul road. The map presenting the road from Meadowbank to the Whale Tail Pit Project is on this slide. The actual Whale Tail exploration road that was completed at the end of August 2017 will become, upon approval, the Whale Tail haul road when it will be enlarged by 3 metres passing from 6.5 metres wide to 9.5 metres.

The haul road has a total length of 64.13 kilometre connecting the Vault haul road to the Whale Tail Project. Two thirds of the road is constructed on Crown land and one third on Inuit-owned land. All these components of the road -- so the road itself, the embankment, as well as the nine bridges and the culvert are included in the global security that Kivalliq Inuit Association, Indigenous and Northern

Affairs Canada, and Agnico has agreed on.

Here is a map of the site for Whale Tail during operation. Please note that operation will occur from 2019 to 2022. As presented previously, the pit area would be isolated by a dike and will be the water for the development and the operation of the pit. The dewatered water level will be maintained through the life of the project by diverting most of the freshwater to other sub-watershed area using diversion channel. The contact water will be treated before discharged to Mammoth Lake.

During operation, progressive reclamation will occur by progressive non-acid generator cover placement over the waste rock storage facility located here. An engineer cover will be progressively placed on the surface of the waste rock storage facility during operation. The cover will be composed of 4 metre thick non-acid generator waste rock material as presented during the waste disposal and management presentation.

Cover design will be finalized during the detailed design phase of the project and will consider operational experience at other northern mine site, including our Meadowbank mine. Active care, maintenance, and monitoring will be required for the reclaimed area over the waste rock storage facility throughout the operation stage. During operation, we

will also continue to work with the intervenors by updating our water quality modelling. Based on this information, we will update our operations and closure concepts.

Here is a map of the site following the end of operation during closure stage, starting at the end of 2022, and that could extend to 2029, and not as 2025, as indicated on this slide. During the closure stage, the removal of the non-essential site infrastructures will occur. To dewater Whale Tail Pit area will be re-flooded as discussed previously. Active care, maintenance, and monitoring will be required for the decommissioned and remaining facility throughout this stage.

Post-closure stage following the closure period from 2030 and onward will commence as closure is completed. Please disregard the date that's noted on the presentation. Once the water in the re-flooded area of the pit is suitable for direct discharge to the environment, the pumping and pipeline systems will be removed. The Whale Tail dike and Mammoth dike will then be breached at selected locations.

The back-flooded area -- the flooded area will be restored. The contact water management system for the waste rock storage facility will be maintained during the closure and the post-closure period. Once the

water quality is acceptable for direct release, based on criteria established through the water licencing process, the waste rock storage facility contact water management system will be decommissioned. As mentioned, the dike will not be breached until water quality in the pit meets CCME, Canadian Council of Minister of Environment guideline, baseline, or appropriate site-specific water quality objective at the discretion of the Nunavut Water Board. During the post-closure stage, continued monitoring and maintenance will be carried out at an adjusted frequency depending on the result of the monitoring and measure of success of selected -- selected for closure.

After the four years of mining at the Whale Tail Pit, Whale Tail, as well as Meadowbank, will both enter in the closure phase. The closure concept for Meadowbank mine site presented in the interim closure and reclamation plan for Meadowbank will remain unchanged. The pit at Meadowbank will be re-flooded and as presented by my colleague Michel Groleau, the tailing and the waste rock storage facility at Meadowbank will be covered with non-acid generator material. During the operation of Whale Tail, progressive closure at Meadowbank will occur. Lessons learned during closure at Meadowbank will be applied for the Whale Tail Project.

For the Meadowbank site, as part of the licence -- as part of the water licence Type A renewal in 2015, the interim closure and reclamation plan was completed in January 2014 and the security amount for the closure of Meadowbank site has been agreed on. As part of the application for the Whale Tail Project, the Whale Tail interim closure and reclamation plan has been completed, including the closure of the Whale Tail Pit site and the Whale Tail haul road.

The Whale Tail interim closure and reclamation plan adhered to INAC and Indigenous and Northern Affairs Canada guidance on closure and reclamation.

During the planning for closure and reclamation, Agnico Eagle will adhere to acid rock drainage and metal-leaching monitoring plan, waste rock storage facility management plan, water quality and flow monitoring plan. Those plans will be updated as required with the information gained during operation at Whale Tail. Experience and knowledge gained through operation and closure of Meadowbank facilities, such as the Vault area, will continue to inform closure planning for the Whale Tail Project. Progressive -- proactive monitoring and decision-making will ensure post-closure goals are met. This will be achieved by geochemical monitoring of the waste rock material, thermistor installation and reading for thermal

monitoring, water quality in sumps and pit to update the water quality forecasts, and various modelling work such as thermal and water quality model.

As for Meadowbank, the closure concept will be in continuous evaluation and planning during the operation.

Agnico believes that closure of the Whale Tail Project will be controlled through on-site monitoring, as well as experience gained at Meadowbank and also through adaptive management to maintain the closure objective of chemical stability of waste rock and good water quality.

Agnico Eagle has agreed on a security management agreement with Kivalliq Inuit Association and Indigenous and Northern Affairs Canada for the Whale Tail Pit Project. The total costs for security agreed on is $26,285,926.

In terms of security for closure, Agnico made the following commitment: Agnico Eagle agrees to the treatment of post-closure seepage/runoff until water meets discharge criteria required. Agnico Eagle will also work cooperatively with Indigenous and Northern Affairs Canada and the Kivalliq Inuit Association to develop a framework for reduction in monitoring requirements and associated security amounts. This framework may be applied by the Nunavut Review --

Nunavut Water Board to reduce security requirements in post-closure.

This completes the presentation of closure and security for the Whale Tail Pit Project.

Mat'na.

THE CHAIR: Thank you.

So open for questions/concerns. Can I start with KIA.

Comments by Kivalliq Inuit Association

MR. MANZO: Thank you, Mr. Chairman. Luis Manzo, Kivalliq Inuit Association.

I just have one clarification on the last slide regarding the framework. KIA's reviewing the framework at this time, and I believe INAC also is reviewing the framework. So it's very unlikely that we actually get an agreement before the hearing ends.

Thank you, Mr. Chair.

THE CHAIR: Thank you.

INAC.

Indigenous and Northern Affairs Canada Questions Agnico Eagle Mines Limited

MS. COSTELLO: Thank you, Mr. Chair and the Board. My name is Karen Costello. I'm with Indigenous and Northern Affairs Canada.

I'll verify that we have reached agreement with Agnico Eagle and the Kivalliq Inuit Association on a

reclamation cost estimate for the project as submitted in the environmental impact statement and the water licence application. In their closure plan and in their presentation, they have specified years related to the different operational phases or the construction operation closure. However, I have noted that in Agnico Eagle's July quarterly report and in a public publication, they have indicated that resources at Whale Tail in the global Amaruq project overall seem to be increasing beyond what was in the environmental impact statement. This is normal. Exploration is ongoing.

So my question is, is there -- in the event that the life of mine of Whale Tail goes beyond what it currently is in the EI -- environmental impact statement, is there flexibility or is there room in this closure plan to -- would it still apply in the event that the mine life was extended?

THE CHAIR: Thank you.

Applicants.

MR. QUESNEL: Thank you, Mr. Chair. Jamie Quesnel, Agnico.

Yeah, there's -- if that does occur, the closure plan -- there would be flexibility based on that. It would just be based on, you know, typical adaptive management practices, depending if that does occur. So

we would make those adjustments related to that. And depending what that could be, like, we're speculating now, so it's hard to really define it, but we would adjust that related to the existing closure plan. So, yeah, there's flexibility, but we're just speculating what that could look like. So it's challenging to be very definitive. However, I would state that that plan would be flexible to adapt to any extension if that did occur within the Amaruq footprint.

MS. COSTELLO: Thank you, Mr. Chair.

And thank you, Agnico Eagle -- oh, Karen Costello for Indigenous and Northern Affairs Canada.

Thank you, Agnico Eagle for that response. What I'm also thinking about is, as part of the consequential amendment to the Meadowbank water licence, it's the use of the tailings facility. So in the event that the Whale Tail mine life goes beyond what is currently, I'm just thinking capacity for the tailings. So 'cause we were kind of doing some rough math here, and it seems that both the north and the south cell are going to -- could be quite full after -- based on even the current life of mine that is the subject of this licence application.

MR. QUESNEL: Thank you, Mr. Chair. Jamie Quesnel, Agnico.

Yeah, I think the -- based Michel Groleau's

presentation, I think it's close to 2 million -- is it cubic metres? -- yeah, of additional capacity at the north and south cell. Just like our exploration team in mining, they're drilling and looking for additional resources as a typical operating year, as an operation we're evaluating all these options if that does occur. So we would be ready for that evaluation to see if -- where we could look at additional capacity for tailings. So those type of things are always ongoing. We're always looking at those options, but we don't have anything in front of us that we're looking at right now that would be tied into the whole process with NIRB if that does occur with any extension to Meadowbank. Hopefully that answers your questions.

MS. COSTELLO: Thank you, Mr. Chair; and thank you, Agnico Eagle.

Yes. I was just curious because this information kind of is out there in the public domain, and it was just something that -- the thoughts kind of came through our mind as we were reviewing this application as to just the adaptability and the flexibility with this current application should -- should you have to come back with a potential amendment or further consideration by the Nunavut Impact Review Board or the Nunavut Water Board.

Thank you, Mr. Chair. That's all.

THE CHAIR: Thank you.

Next, Environment and Climate Change Canada.

MS. PINTO: Thank you, Mr. Chair. Melissa Pinto, Environment and Climate Change Canada.

We have no questions at this time.

THE CHAIR: Thank you.

Next, DFO.

MR. D'AGUIAR: Mark D'Aguiar with Fisheries and Oceans Canada. Thank you, Mr. Chair.

We don't have any questions at this time. Thanks.

THE CHAIR: Thank you.

Is there questions or concerns from public?

(OTHER LANGUAGE SPOKEN)

NWB staff, concerns? Questions?

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, NWB staff.

No questions at this time.

THE CHAIR: Thank you.

The Panel members? Okay. None.

All right. Thank you.

You have another -- more presentations to go?

MR. QUESNEL: Yes.

MR. VANENGEN: Just three more presentations. Presentation by Agnico Eagle Mines Limited (Accidents and Malfunctions)

MR. QUESNEL: Thank you, Mr. Chair. Jamie

Quesnel, Agnico Eagle.

Next presentation is on accidents and malfunctions.

Part of our process to evaluate a lot of the procedures and -- is related to our responsible mining management system. It was mentioned earlier about the plan, do, check, and act. So that's a common theme for adaptive management. We do our planning. We execute. We check if there's areas of improvements and act on those changes. Some of the key items would be related to site-specific health and safety plans, operational procedures, guides, and instructions. Again, continuous monitoring, the adaptive management piece. The mitigation, maintenance, and also response. The response is related to the highly skilled emergency response team that we have at Meadowbank and also for Whale Tail Pit Project. If we do receive our approvals, there will be a separate team located at Whale Tail.

So health and safety is paramount at Agnico Eagle. Everyone has a responsibility, and everyone can make a difference related to health and safety. We identify our health and safety responsibilities for all level of employees. We ensure clear guidance and expectations toward safety, and we adhere to all safety regulations and ensure preventative measures are in place.

Spill contingency and response plans. We have these plans as part of our water licence. It's related to the collection, use, management, and reuse of water. The collection, use, and management of waste, and any discharges to the receiving environment. And my colleagues have commented and explained, very effectively, of all the plans that we have in place at Meadowbank and that will be -- all that knowledge and operating experience will be transferred to Whale Tail.

Agnico Eagle has in place a systematic adaptive management approach that we've been using for ten years now in Nunavut, directly related to the decision-making whereby operational practices can be adapted and adjusted as required to reduce or eliminate any unforeseen negative impacts throughout the life of the project.

Our emergency response team, its designated team, there's one going to be at Meadow, one at Whale Tail Pit Project. All members of the teams are trained and familiar with emergency and spill response resources, including their location and access, where the resources are at the operation. The spill contingency plan, they're familiar with that, and appropriate emergency spill response methodologies.

Some of the training -- some of the highlight items related to the training, related to the spill

response plan, the roles and responsibilities of each member of the emergency response team, the nature, status, and location of the fuel and chemical storage facilities, where they are on the site, the on-site and off-site spill response equipment and how to use it, the emergency contact lists within Agnico Eagle and also with our government agencies, and also desktop exercises of worst-case scenarios. Just last week we had one here in Baker Lake at the fuel farm. Just as an exercise, if something did occur, and this is a key learning where we evaluate what went well with that and any areas of improvement. And, also, reviewing the likely causes and possible effects of spills.

And that's the end of that presentation.

Thank you.

THE CHAIR: Thank you.

Questions or comments, concerns? Kivalliq Inuit Association.

MR. MANZO: Thank you, Mr. Chairman. Luis Manzo, Kivalliq Inuit Association.

No questions at this time.

THE CHAIR: Thank you.

INAC.

MR. PARSONS: Thank you, Mr. Chair. Ian Parsons, Indigenous and Northern Affairs Canada.

We have no questions at this time.

Thank you.

THE CHAIR: Thank you.

Environment and Climate Change Canada.

MS. PINTO: Thank you, Mr. Chair. Melissa Pinto, Environment and Climate Change Canada.

We have no questions at this time.

THE CHAIR: Thank you.

And DFO.

MR. D'AGUIAR: Thank you, Mr. Chair. Mark D'Aguiar with Fisheries and Oceans Canada.

We have no questions at this time.

Thank you.

THE CHAIR: Is there concerns, questions from public? (OTHER LANGUAGE SPOKEN). Okay.

NWB staff.

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, Water Board staff.

No questions at this time.

THE CHAIR: Thank you. And last one, NWB -- Panel members. None. Thank you.

So next presentation.

Presentation by Agnico Eagle Mines Limited (Management Plans and Monitoring Programs)

MR. VANENGEN: Mr. Chair and Board members, for the next 20 minutes -- or my name's Ryan Vanengen with Agnico Eagle. For the next 20 minutes, Erika and

I will be presenting the summary of our management plans and monitoring plans. So a lot of this has already been presented in the previous presentations, and this is going to be, we hope, kind of a compressed version of that, as well as highlight a few of the specific monitoring plans related to the site monitoring that Karen had brought up and also our dike construction and then receiving environment monitoring.

So we'll touch on the -- an overview of our approach to management plans. We'll -- I'll touch on the water quality and flow monitoring. I'll touch on the water quality monitoring and management, as well as some of our hydrogeological monitoring. We'll talk about our quality assurance and quality control. Erika will present on our waste rock management. And then we'll quickly talk also about the spill contingency emergency and also closure and reclamation planning and the monitoring that will go into that.

So really quickly, this'll be a bit clearer for everybody as it's outlined also in our draft framework for the Type A water licence for Whale Tail Pit. So we separated our plans for Whale Tail Pit into a different -- four different categories. We have standalone plans that are Whale Tail Pit-specific. We have Whale Tail Pit addendums. So these are -- these are management plans that we had at Meadowbank and that

we bolted onto it elements of Whale Tail Pit. So we call that an addendum. We also updated our -- some of our mine plans, including the tailings storage facility management plan, which Michel Groleau presented on. So we updated that plan. And then we also used approved Meadowbank plans, and that would include, you know, spill contingency plans, quality assurance, quality control, transportation plans, and maintenance and surveillance plans. And the idea behind that is that we don't intend to reinvent the wheel. We want to use the plans that are good and work at Meadowbank; we want to apply them to Whale Tail Pit as well.

So for water quality, this is -- this is really -- this figure here is summarizing our water quality and flow monitoring plan, and we call it site-wide monitoring. So we have -- during operations, what we're proposing are 15 monitoring stations all around the system. So it's to look at pits and sumps in our contact water. So you can see there's a station in the waste rock storage facility sump. There's a station in the pit where there'll be a sump as well. There's a station in the attenuation pond. And all that water is monitored at a station also prior to discharge into Mammoth Lake.

We also have a station for discharging water from our fuel farm, and we have a station to monitor our

sewage effluent into the attenuation pond. We also have a series of other monitoring stations within our -- on our water quality and flow plan in the receiving environment, including stations in A45, as well as in downstream locations. And that -- the idea behind those stations is that they'll be monitored generally every month. Like, there's some exceptions. An exception would be these downstream areas that freeze to the bottom, and also this pond here that would be frozen in the winter. In addition to all of this sampling around the site, you can't forget that the core receiving environmental monitoring program that looks at the biological parameters and stratified water sampling in the south basin of Whale Tail Lake, in Nemo, as well as in Mammoth.

This list here, Table 3-1, our monitoring program, describes all the stations, the phase of construction, and the monitoring parameters and the frequency, and we look, again, in its -- you can see it in our draft framework that we provided, that we're not looking to reinvent the wheel. This is all very similar to what we do at Meadowbank, and it's really, you know, an extension -- our water quality and flow monitoring plan is an extension of our Meadowbank monitoring, where we have compliance monitoring, we have event monitoring, and we have adaptive management monitoring as well.

And we'll discuss that a little bit further in the next presentation related to the draft framework.

We also are proposing to use the same group of parameters. They're by group number, and there's five different groups. The list of parameters -- this list of parameters is exactly the same as our Meadowbank Type A 2AM-1525.

As Valerie presented in our draft framework and our presentation previously, we have a list of effluent quality criteria that we're proposing. We've worked with Environment Canada to -- to come up with an acceptable -- total mercury. So that was agreed upon, and that's in the draft framework, like Valerie presented. And I will note the error in this table, similar to the other table; it should be two zeros, not three in there. But, ultimately, the discharge limits that have been reviewed and are developed and presented in this table were developed in consultation with Environment Canada and based on the predicted water quality, these limits will be protective of the receiving environment.

And even though we know that those -- those effluent discharge limits are protective of the receiving environment, we still go out and we monitor the receiving environment, and we do that in the core receiving environmental monitoring program, which is

described on this slide here, where we look at -- at a basin level, we'll look at Mammoth Lake, we'll look at Whale Tail South Lake, and we'll also look in the summer at the downstream lakes that Valerie described as well.

So looking at this figure here, we'll look at Nemo. But we'll look at all the lakes -- there's different points along here that in July, August, and in September, we'll monitor the lakes downstream as well. And we've collected a lot of data between 2014 and 2017 to understand what our baseline conditions are in the receiving environment.

So for the core receiving and environmental monitoring program, we're going to use the same methods as approved under Meadowbank. We're proposing to use the same thresholds and triggers which were developed already in 2010 with -- with KIA or Kivalliq Inuit Association, Indigenous and Northern Affairs Canada, and Fisheries and Oceans. We look to use all of those and apply, again, our lessons learned in receiving environmental monitoring to our Whale Tail Pit Project.

We'll also use the lessons learned from the Meadowbank east dike construction and Bay Goose dike to manage and control total suspended solids. And I already presented this in the earlier presentation.

During the construction of the Whale Tail dike,

we'll be monitoring -- we'll be installing turbidity curtains. We already have that all planned out. We'll be monitoring in the receiving environment. So in this area, we have stations there, to make sure that we protect, during construction, the fish and the water quality in the south basin of Whale Tail.

We'll also be monitoring, as you can see on the other -- on that other figure, we're going to monitor downstream as well. And, of course, we'll be monitoring our freshwater source also while we're -- while we're operating the camp. And that will ensure that this water is protected because that's our drinking water source for the camp.

So we touched on this earlier, and it's in many of our presentations about adaptive management. So we're committed to monitoring. And if, during construction of the dike, we see that -- that changes are occurring, that total suspended solids are increasing and that perhaps our turbidity curtains aren't -- aren't effective, we'll slow down our construction practices, we'll increase our monitoring, and we may need to install additional turbidity curtains or some other adaptive management as well. And we have great experience with that based on our Meadowbank experience.

Related to hydrogeology, we -- we installed three

groundwater wells. So this is to evaluate the groundwater. So we've talked a lot about surface water. But we're also interested in understanding deep under the ground what the water quality is like.

So in 2015, we installed three groundwater wells that were drilled towards the deepest part of the lake, where there's water flowing. It's called a talik. Valerie presented those models earlier that showed the talik. We -- we -- we drilled a number of different wells, and we were unfortunate that those wells weren't -- we weren't able to develop those wells, but they still told us a lot about the talik underneath the lake.

We also -- because the 2015 groundwater wells we weren't able to develop, we then decided to go with a very expensive but very reliable groundwater well installation; it's called a Westbay groundwater well, and what it tells us is that -- it's set up like this, and it has -- it's located in this area here. Here's where the dike is proposed, and it's located in this area right towards the attenuation pond. And what it -- it's a deepwater well that goes down to 500 metres, and there's different ports along that well. So this one single well is like having multiple wells to evaluate the area around the attenuation pond and the groundwater underneath our site.

So what all that information has told us is what Valerie already presented, is that within the proposed pit, most of the pit is within permafrost. But as we move towards the dike, there -- and get into the deeper sections of the lake, there's an open connection or an open talik to the groundwater. But that's why we installed that groundwater -- the Westbay in this location, to ensure that we're protecting the groundwater related to the Whale Tail Pit site.

So we've talked a lot about this as well, and I'll just quickly brush over this. The -- one of the important points when you're monitoring is that the monitoring data that you collect is reliable, and we call that quality assurance and quality control. So it tells us if you're collecting a sample of it, does it really show -- is it -- is it an accurate representation of the water in that moment in time? That's what a QA -- quality assurance/quality control plan does. And using water as an example, we do that often. We do that in the water quality and flow monitoring plan monitoring. We also do that in the core receiving environmental monitoring program; we also do that in our groundwater monitoring program. We make sure that the samples that we're taking are reliable. And we follow very strict guidelines that are regulations from INAC or Indigenous and Northern

Affairs Canada but also Environment Canada in the receiving environment.

Now I'll pass it to my colleague Erika to talk a bit more about our waste management and waste control at Whale Tail Pit.

MS. VOYER: Thank you, Mr. Chair, Board members.

These following slides on the waste rock management were reviewed in the previous presentation for waste disposal and management presentation, the Number 3 presentation. So I will not go as much in detail as previously.

So for the waste rock management, as we had reviewed previously, the main step for this management are, first, the identification of the different waste rock type at the baseline stage of the project; the sampling and testing on-site during operation to define the acid rock drainage and metal leaching potential; and also the daily assessment by the geology and as well as the marking in the pit of the waste rock type during the operation.

The waste rock management plan is completed at the early stage of the project and is then further detailed. As we reviewed during production, the engineering team review the plan on a weekly basis and produce maps and clear directive on the waste rock

classification and deposition location as presented on the two maps here.

The dispatch system, as you know, is an important tool for the waste rock management at Meadowbank and will also be for the Whale Tail Project. The dispatch system and the dispatcher in charge guide the operator and ensure the ore and the waste rock material are transported to the appropriate location. The execution of the waste rock management is a step-by-step integrated process that includes different teams during the whole mining process. The best practices at Meadowbank in terms of waste rock management will continue for the Whale Tail Project.

I will let my colleague Ryan Vanengen complete the presentation.

Thank you.

MR. VANENGEN: Thank you, Erika.

So this slide is describing some of the quality assurance and quality control that goes into making sure that the waste rock that we say is non-potentially acid generating is actually that, and it kind of falls in line with what Valerie had presented.

So when we encounter a certain rock type that Valerie described, we then collect a sample from the drill hole. So while we're -- the drill holes during blasting, we collect that sample, and then we send it

into our on-site lab, which tells us what type of material it is, confirms what type of material it is. And we also send, periodically, a subset of those samples to an external lab, a lab in the south, that tells us how good a job we're doing at identifying that rock material. So that's a really important piece of our -- of the monitoring and management of our waste on-site.

We also -- related to water quality, we also have qualified technicians on-site, and in our water quality sampling, we also collect duplicates and send them down to the lab to make sure the lab is also doing a good job on -- on -- on their analysis. So it tells us a lot about the accuracy of that water sample. And we always use -- in our water quality, we always use the third -- a third-party accredited laboratory. So that means that we're not analyzing for that. An arm's reach away from us is analyzing our water quality to make sure it's safe.

And then we follow, as I kind of mentioned before, we follow Environment Canada guidance on quality assurance and quality control. We've developed quality assurance and quality control that meets very rigorous monitoring standards for our core receiving environmental monitoring, and we apply all of these -- kind of these methods around quality assurance, quality

control. We apply it throughout our monitoring, including air, as well as, as I mentioned, groundwater.

Just two more slides on the -- on our emergency planning and then -- or two more topics to cover and, I think, five more slides.

So we have our spill contingency plan, which is an important plan for obviously -- obvious reasons. But as I mentioned before, something like the spill contingency plan and how we react to some type of spill, we're proposing to use the same methods that we have at Meadowbank, and on the current all-weather access road we're looking to apply that same spill response to the haul road and to the Whale Tail Pit site.

We have an emergency response team that is very -- is very good at what they do, and they're going to be based at Meadowbank, and then there's going to be a smaller group also based at Whale Tail Pit. So they'll be able to respond to human health concerns or accidents that might happen, like Jamie described, and also spills that -- that might happen. So we have -- we have, kind of, everything covered between those two sites.

And the last topic is related to our closure planning, and these were thoroughly covered by Erika in the previous presentation. So I don't think I need to

touch on these. What I will just touch on, though, is this: We've already agreed, based on Karen's comments, one of our updated water quality and flow monitoring plans has a monitoring station called STWT10 located in the pit, and it's carried forward in the latest version of the water quality and flow plan, it's carried forward in here, and we hope that that will address that question around monitoring of the pit and the north basin as it relates to stratified water quality monitoring.

Ultimately, and this is in closing, you've seen this slide a few times because it applies to all of our monitoring, and it relates to adaptive monitoring. We're going to collect monitoring data, which we already have baseline data that we've used to model. We're going to plan and evaluate. And we're going to adapt our infrastructure through engineering and change our mine -- mining operations to adapt based on -- based on data, and we'll use fact-based decision-making.

So I hope that summarizes all of our monitoring plans.

Mat'na.

THE CHAIR: So that's end of the presentation on that particular one?

MR. VANENGEN: Mr. Chair, we just have one

more presentation that relates to the licencing. So it's a -- it'll go over the draft framework and the Type A water licence amendment as well.

THE CHAIR: Okay. So open up for questions, concerns?

Teresa.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Impact -- or Nunavut Water Board. Sorry.

Before the final presentation -- I know we're going into questions right now about this presentation, but before we go into the final presentation, I didn't have a copy of that presentation to mark as an exhibit. So before you present, I'll need to take a pause and mark that as an exhibit.

Thank you, Mr. Chair.

EXHIBIT 13 - Agnico Eagle hard copy PowerPoint presentations entitled "Part 8 - Meadowbank Licence Amendment" and "General - Annual Reporting Commitments, Terms, Linkage to Other Licences" (English/Inuktitut)

THE CHAIR: Thank you.

So open for questions, concerns.

KIA.

MR. MANZO: Thank you, Mr. Chairman. Luis

Manzo, Kivalliq Inuit Association.

No questions at this time.

Thank you.

THE CHAIR: Thank you.

INAC.

Indigenous and Northern Affairs Canada Questions Agnico Eagle Mines Limited

MR. PARSONS: Thank you, Mr. Chairman. Ian Parsons, Indigenous and Northern Affairs Canada.

Pardon me if this was covered in the NIRB process, but I wasn't here. So I'm just here now.

As far as water quality goes, our biggest concern is with the metal leaching. So I'm just wondering why the 16th hole for metal leaching and only every 4th hole for ARD? Or is this something that was covered in the NIRB process, and it's going to be adapted for Whale Tail?

THE CHAIR: Thank you.

Applicants.

MS. BERTRAND: Mr. Chair. This is Valerie Bertrand for Agnico.

So this sampling plan is what's currently done at Meadowbank. And it's an example of the type of things that can be done at Whale Tail. We have a commitment to update that plan to include things like arsenic content.

MR. PARSONS: Okay. Thank you. So just to clarify, this is not the -- the 4th and 16th is not set in stone, then, for Whale Tail?

MS. BERTRAND: Valerie Bertrand for Agnico Eagle.

That's correct. It's not set in proverbial stone.

MR. PARSONS: Thank you. No further questions.

THE CHAIR: Thank you, INAC.

Environment and Climate Change Canada.

Environment and Climate Change Canada Questions Nunavut Water Board Staff

MS. AUSER: Thank you, Mr. Chair. Trish Auser, Environment and Climate Change Canada.

Environment and Climate Change Canada is seeking clarification from the Water Board whether these management plans and monitoring programs will be made available for review and be subject to Board approval. Our department, along with other intervenors, have been involved in reviewing these materials, and Environment and Climate Change Canada is interested in continuing our engagement by reviewing future updates of plans, programs, and studies.

Thank you.

THE CHAIR: Water Board.

MR. KHARATYAN: Thank you, Mr. Chair. Karen

Kharatyan, Water Board.

I don't really know which plan Environment and Climate Change Canada means right now. Generally, plans that were included within the applications, no big concerns there or concerns that were raised, but some of them, they are updated during the process. So the Board may approve within the issuance of the licence. This is the practice that the Board had before.

However, if there are some -- I think there are plans that should be updated, and I did have a very quick look. They are proposing -- Agnico Eagle is proposing a schedule for updated plans to be submitted 60 days prior to operation or 60 days after licence issuance. So these plans will be made available for public review, of course.

MS. AUSER: Trish Auser, Environment and Climate Change Canada.

Thank you. That was what I was looking for. Thank you.

THE CHAIR: Thank you.

And DFO.

MR. D'AGUIAR: Thank you, Mr. Chair. Mark D'Aguiar with Fisheries and Oceans Canada.

We don't have any questions at this time.

Thank you.

THE CHAIR: Thank you. (OTHER LANGUAGE SPOKEN).

NWB staff, Water Board.

Nunavut Water Board Staff Questions Agnico Eagle Mines Limited

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, Water Board staff.

One clarification. If you go back to Slide 6 or 7, I think there are missing stations there. Or maybe it's my computer.

MR. VANENGEN: Mr. Chair, Ryan Vanengen from Agnico Eagle. Yes. This is not the complete list that's in your draft framework. So there are stations missing in here. This was more to serve as a means of an example for presentation purposes.

Mat'na.

MR. KHARATYAN: Thank you. Karen Kharatyan, Water Board staff.

If you go next slide, Ryan, please. Next. I just catched it. Within the group, second of parameters, there is total cyanide included, total and free cyanide. And I think even Environment and Climate Change Canada suggested that it shouldn't be completed, so you can -- we can delete it for the framework if it's included within the framework.

Thank you.

MR. VANENGEN: Mr. Chair.

Thank you for that. That's an error in that table. And we'll double-check if that was removed in the draft framework.

Thanks.

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, Water Board.

No more questions at this time.

THE CHAIR: Thank you.

Panel members. No?

Thank you.

Next presentation from the applicant.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, I have the presentation -- hard-copy presentation materials for this presentation to mark as the next exhibits in this public hearing.

And those are my procedural matters, sir.

THE CHAIR: Thank you, Teresa.

Go ahead.

Presentation by Agnico Eagle Mines Limited (Licence Amendment)

MR. VANENGEN: Ryan Vanengen from Agnico Eagle. Mr. Chair and Board members.

I think this is -- yeah, the 17th slide. So it should be about 15 minutes presentation. We're really

going to get into the more administrative information related to our Type A water licence amendment, as well as our proposed Whale Tail Pit Type A water licence.

So as I mentioned earlier, especially in Michel Groleau's presentation, we talk about the linkage to our Meadowbank mine. We'll be mining at Whale Tail Pit, which we're proposing requires a Type A water licence. But we can't forget that that ore is going to be shipped to the Meadowbank mill, and the ore from Whale Tail Pit is going to be shipped to the Meadowbank mill and then stored in our tailings storage facility.

So what we've requested is really just a matter of just including that ore storage or the tailings storage in the Meadowbank licence. And, therefore, we're asking to extend that activity of our tailings within our Type A 2AM-MEA1525. So just extend the activity. Because it's all within an approved tailings storage facility footprint anyway.

So just the next slide, what that means is, as Jamie presented earlier, is this area here is going to continue to be operated. So this is our tailings storage facility at Meadowbank. And we're going to continue to operate also our mill, which then sends the tailings into the storage facility.

Oh, I forgot about these animations.

So the north cell raise was well described by

Jamie and also by Michel. So I won't get into that too much.

This is where we'll be depositing, as Michel described, 3.5 -- around 3.5 million tonnes of tailings. And then the remaining approximately 5 million tonnes of tailings will go into an already approved tailings storage facility. So that's that Type A water licence.

But in order to mill -- in order to mill, we also need water; right? So that's part of that water licence amendment as well, is the water use for milling.

So as Michel described, we have the raise that we're proposing will go along the outside of the tailings storage facility, and this is the raise here and design. And as Michel showed as well, that raise will be inside of the tailings storage facility, and that will allow us to continue to operate our mill at Meadowbank and allow for the deposition of the Whale Tail Pit tailings into our already approved tailings storage facility.

So the same surface water management strategies will apply for -- so we'll apply everything that we've done and everything that Michel described earlier, we'll continue to apply that. So what that means is we're going to reduce the amount of contact water

requiring management. We're going to divert through channels on the outside. We're going to divert water. And we're also going to do as much as we can to limit our freshwater use. So that's just continuing our Meadowbank operations.

And you can see in these photos, these are fairly recent photos. These are the diversion channels that we're talking about, that Michel presented earlier. And you can see these are -- and that's diverting the non-contact water away from our tailings, to make sure that it stays frozen.

So those first few slides were really just describing, like I said, the Type A water licence amendment for the Meadowbank licence, and now we're going to get into the details of the proposed draft framework. I won't get into, like, extreme details, but I'll get into -- we'll just kind of overview that. So for those that -- does everybody have a copy of the draft framework in front of them? Yeah. We'll just quickly go through that together.

So this was described to our colleagues at Indigenous and Northern Affairs Canada, as well as Environment Canada and the Kivalliq Inuit Association. We -- what we really attempted to do in this draft framework was to copy, more or less, the same conditions in the draft framework as we already have in

our Meadowbank licence so that they look very similar. And what we -- what we're proposing also is that the terms and conditions are also similar. So it's -- the wording is identical in some cases.

In the left column, what you'll see here is the -- is kind of the description. This is the information that would be in our -- in the proposed licence. And in the other column here is what we have here is the Agnico Eagle comments, and it's kind of an annotation or it describes what we're trying to achieve in the -- in the left column.

So, you know, if we go to the second page, which is part A, the scope and definitions and enforcement, a lot of the wording is consistent with our Meadowbank licence but describes or Whale Tail Pit Project, and that description was already made by the -- by the Chair in his earlier presentation and described by Jamie.

If you look ahead to Part B, "General Conditions", we have in the left column, we have Items 1 to 12. And what that means is that we're looking to just adopt the Meadowbank Conditions 1 to 12. We're not looking to change them. They all apply to the Whale Tail Pit site. For general conditions, 13, this is related to monitoring plans. And what it says is we will implement monitoring plans that we described in the

presentations, we will implement them, is what it's saying.

If we go to the Condition Number 14, these are Whale Tail Pit-specific plans as well, and this tells the Board that -- and it's insurance for -- it ensures that Agnico Eagle will follow those Whale Tail Pit-specific plans.

And then Bullet Number 16 speaks to Agnico's commitment to update -- to update the plans. So that's in reference to Trish's comment also about the updating and revising plans; that's what this condition is about. And the licence goes through other standard wording related to securities, and we've adjusted that. And Part D, conditions applying to construction, it's very standard stuff; stuff that is in our Type A water licence at Meadowbank, but the wording's adjusted for Whale Tail Pit. And same thing for the other sections as well.

The one section that I want to point to for the Board's understanding is Part E, "Conditions Applying to Water Use and Management", and, in particular, the Condition 4 related to updating our Whale Tail water management report and plan, as well as the water quality modelling. These are -- these are conditions that we do at Meadowbank, and it's all the information that Valerie presented on the modelling and how we use

monitoring data inform -- to inform our modelling. It's all in there, and it addresses INAC's concerns, as well as Environment Canada's concerns and the Kivalliq Inuit Association's concerns related to the closure modelling scenarios.

And I think that's generally -- that's it. I mean, the other one maybe to note would be the EQCs on page 8 of the draft framework. If you look at Part F, "Conditions Applying to Waste Disposal and Management", we have the new revised EQCs, and what you'll see here, cadmium is the right number, and we also have an agreed-upon number for mercury.

So I hope that helps with the Board's understanding of what we're proposing here, and we believe it's certainly transferrable. It's transparent, and it's also enforceable as well. It's a lot easier to enforce licences that have two licences on two, kind of, sites that are interacting, it's much better to enforce and easier on the compliance side. So it's just transferrable.

So I hope this document helps the Nunavut Water Board.

The one thing that was discussed over the lunch break was that intervenors have requested an extension on the review of the draft framework, and we're working with them on the timelines for that.

So this is -- this is a comprehensive list, and it's covered in the draft framework. So I won't get into the details of this, but this is really showing our commitment to -- to updating the plans and ultimately adhering to these plans. So that's the same slide related to that.

And then as Karen had mentioned about, you know, our commitment is to update certain plans prior to operations, and then after receiving our licence, you know, 60 days after issuance of the licence, we'll update other plans. And that's all in the draft framework as well. And then 90 days prior to construction, we'll update plans as well.

And then, lastly -- actually, I should go back. This is related to annual reporting commitments. And what we're proposing is that the Whale Tail Pit licence would be just the same in terms of its annual reporting, and, therefore, the Nunavut Water Board will receive, you know, essentially a single Report reporting on our Meadowbank licence, as well as our Whale Tail Pit licence. And it would include all of the things that we have reported on and discussed already, related to dust suppression, related to waste rock storage facility, including even the performance of our thermal modelling to address some of Indigenous and Northern Affairs Canada issues. You know, we'll

continue to adapt and report on the core receiving environmental monitoring program and also, you know, use our geotechnical experts like Michel to report on some of our geotechnical work around Whale Tail Pit.

Lastly, I spoke to this already. You know, certainly there's a linkage to our Meadowbank licence, and that's what this draft framework demonstrates. We believe there should be a linkage and that they should be consistent. And within that draft framework, we've also incorporated conditions of the road, the Type B exploration access road. It's the BC-AEA1525. We've incorporated that into here, into the draft framework. And we've also, as I mentioned, extend -- requested an extension for the Meadowbank licence to 2026 that Karen mentioned. What's important, though, is that we want to keep -- this was discussed in the prehearing conference, but we would like to keep the Type BB advanced exploration licence separate from this licence so that we can continue to do more regional drilling related to exploration on our Amaruq site, which is a much bigger property than just where Whale Tail is located.

Thank you very much. That's it.

THE CHAIR: Thank you.

Open to questions, concerns.

KIA.

Comments by Kivalliq Inuit Association

MR. MANZO: Thank you, Mr. Chairman. Luis Manzo, Kivalliq Inuit Association.

In terms of the extension, I agree with INAC on that. In terms of the -- of some of the general concepts mentioned, we also have general intent to go over those as well and -- just for clarification to the Board.

Thank you.

THE CHAIR: Thank you.

And then INAC.

Indigenous and Northern Affairs Canada Questions Agnico Eagle Mines Limited

MR. PARSONS: Thank you, Mr. Chair. Ian Parsons, Indigenous and Northern Affairs Canada.

Just some clarification, I guess. I think you guys skipped over, I guess, the slides on the proposed licence terms and updated plans. I didn't see those talked about, but I do see it in the written copy here: (as read)

Whale Tail interim closure and reclamation plan updated 90 days prior to construction.

I don't think we asked for that, and that's sort of where that's coming from. Are you guys just going to provide that on your own accord? Just getting some clarification on that.

MR. VANENGEN: Mr. Chairman. Ryan Vanengen from Agnico Eagle.

That's a leftover from the Type BC licence. So that's an error on our part. Our apologies.

MR. PARSONS: Thank you for your clarification.

MS. COSTELLO: Thank you, Mr. Chair. Karen Costello for Indigenous and Northern Affairs Canada.

It is getting close to dinnertime, and I'm sorry to have a couple of extra questions, but it has to do with Slide 15. You were speaking to annual reporting commitments, and I just am seeking clarification. I may have misheard you. But I thought I heard a statement that you were going to submit a single annual report for both the Whale Tail licence and the Meadowbank licence.

MR. VANENGEN: Mr. Board -- sorry. Mr. Chairman. Ryan Vanengen from Agnico Eagle.

Yeah, I misspoke. In order to meet the Type A water licence for both projects, we would submit separate plans. Yeah. Thank you.

MS. COSTELLO: Thank you, Mr. Chair. Karen Costello for Indigenous and Northern Affairs Canada.

Thank you for that clarification.

And just one more with regard to the other licences that are associated with the Whale Tail/Amaruq

project. So the Exploration Licence 2BE, that is for the drilling, but it's also -- I just want to get confirmation that you also want to keep separate the B licence for the underground bulk sample?

MR. VANENGEN: Mr. Chairman. Ryan Vanengen from Agnico Eagle.

Those licences were combined as a Type BB. So it's all -- it's under one single licence, all of the activities associated with exploration on the Amaruq site. So it's -- it covers the ramp and surface drilling within the Amaruq property.

MS. COSTELLO: Thank you. Yeah, I had forgotten they had been combined. So that -- Karen Costello for Indigenous and Northern Affairs. Apologies, Chair.

Right now your exploration licence only goes to 2018. Okay. So just want to make a statement about that.

Thank you.

There's nothing further from Indigenous and Northern Affairs. I just wanted -- as the -- Agnico had mentioned that they wanted to retain that exploration licence for ongoing work. 2018 is only -- is coming upon us soon.

Thank you. Nothing further from Indigenous and Northern Affairs.

THE CHAIR: Thank you.

And then, next, Environment and Climate Change Canada.

MS. PINTO: Thank you, Mr. Chair. Melissa Pinto, Environment and Climate Change Canada.

We have no questions at this time.

THE CHAIR: Thank you.

And DFO.

MR. D'AGUIAR: Thank you, Mr. Chair. Mark D'Aguiar with Fisheries and Oceans Canada.

We don't have any questions.

Thank you.

THE CHAIR: Thank you.

From public? (OTHER LANGUAGE SPOKEN).

Board staff.

Nunavut Water Board Staff Questions Agnico Eagle Mines Limited

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, Water Board staff.

Just a couple clarification, and I think first one is important for Nunavut Impact Review Board as well.

You just responded, Ryan, that separate plans will be submitted. Separate plans or separate annual reports?

MR. VANENGEN: Ryan Vanengen from Agnico Eagle.

I misspoke again. It's separate annual reports.

MR. KHARATYAN: Thank you.

And just one very quick comment. I was just going very quickly -- not going into details through this framework. There may be some wrong referencing of -- to management plans because everything is November 2016; I think, for some of plans we received updated versions in 2017.

THE CHAIR: Applicant, go ahead.

MR. VANENGEN: Ryan Vanengen, from Agnico Eagle.

You're correct, Karen. In January 2017, we provided those management plans, and in our rush to get this out, it's a mistake. Thank you for the -- for noting that, Karen.

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, Water Board staff.

No more questions.

THE CHAIR: Thank you.

Panel members? No. No.

Okay. Need a little bit of housekeeping before we continue on with the presentations if we have to, or it's lunch [sic].

We have a community session tonight at 7:00, and we're supposed to have supper. Time's getting tight. So any guidance from the staff? Thank you.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

There's nothing further from staff or from me.

Thank you, Mr. Chair.

THE CHAIR: So we will continue on until tomorrow morning with your presentations. How many more presentations do you have to take care of? All done?

MR. QUESNEL: Thank you, Mr. Chair. Yeah, that was the last presentation by Agnico Eagle.

THE CHAIR: Okay. So we'll come back at 7:00 tonight for the community session.

Okay. Suppertime. Thank you.

(DINNER ADJOURNMENT AT 5:17 PM)

(PROCEEDINGS RECOMMENCED AT 7:06 PM)

THE CHAIR: Good evening.

We're starting our community session here tonight. We have 7 to 10, I guess. So good evening, everyone, and welcome to the community session for the Nunavut Water Board's public hearing of the Type A water licence application and for potential consequential amendments to the Water Licence 2AM-MEA1525 issued for the Meadowbank project filed by Agnico Eagle Mines Limited with the Nunavut Water Board for the Whale Tail Pit Project.

My name is Lootie Toomasie, and I am the Chair of

the Nunavut Water Board and the hearing Chair for this public hearing.

Before we proceed with tonight's session, let us begin with a prayer. Let us stand and have opening prayer.

(OPENING PRAYER)

Opening Remarks by the Chair

THE CHAIR: So for those of you who were not here this morning when we started the public hearing, I have a few brief housekeeping and introductory remarks, and then I will turn the microphone over to the executive director and staff of the Nunavut Water Board, the applicant, and the intervenors.

Before I do, please note that there's interpretation available throughout the hearing and earpieces are available from the table located -- it's out there, yeah, by the entrance area. And English will be -- it's on Channel 1, and Inuktitut is on Channel 2.

I also want to remind everyone to sign in on the sign-in sheet located at the table just as you came in. Your signing in is part of the record of this hearing. In other words, the Board's decision report will include the sign-in sheets indicating all those that attended. That is why the Board's appreciating your

help, just making sure it is complete.

The washrooms are located just outside the hall door, outside the hall door here, in -- by the area. Exits are located just where you came in, and there's another one over there and in the back here.

And there will be coffee, tea, and snacks located at the table. It's out there on the side. During break, please help yourself to refreshments and snacks.

There are agendas for the hearing available at the table as you came in. Please pick one and follow along.

Now I would like to introduce all the Board and staff before we proceed with the presentation on the agenda.

I am chairing this Panel, and with me today as the members of the Panel are Board members Ross Mrazek on my right and to my left is Alex Ningark.

Several staff members who have contributed to the NWB's administration and technical review of the application are present along with the legal counsel to the NWB, and I will introduce the individuals attending today. When I say your name, please wave so that people will -- people know who you are: Stephanie Autut, executive director. Ben Kogvik, director of Board communication and in-house interpreter to the Board. He's at the back, by the screen, by the

windshield. Karen Kharatyan. I'm sorry. I won't pronounce it properly anyway. He's the senior technical advisor working on this file. Richard Dwyer, licencing administrator, at the back. And Teresa Meadows, legal counsel to the Board.

We have two interpreters available for simultaneous translation: Ben Kogvik from the Board and Alexander Alooq, who is from Baker Lake.

For audio support, we have with us William Nicoll from Nunavut Impact Review Board that kindly made its equipment and services available for NWB's hearing. If you experience any difficulties with your headsets, William will be able to provide you assistance.

To ensure an accurate record of the proceeding is kept, we have with us a court reporter: Sara Anderson. No? Yeah, I said it this morning. Sorry.

Legal.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Sorry, Mr. Chair. Your remarks are not updated. Elizabeth Royal is our court reporter. Thank you, Mr. Chair.

THE CHAIR: Yeah, thank you. From Dicta Court Reporting Incorporated.

Okay. In our staff listing, I forgot to mention David Hohnstein. Sorry about that. He's not here on

the staff; forgot about it on my note. He's director of technical services.

Okay. I ask that all parties please state their name every time prior to speaking.

We will start tonight's session with a presentation by the Nunavut Water Board's technical staff and then a presentation by the applicant, Agnico Eagle Mines Limited. Following that, we will have presentations by the following intervenors: Kivalliq Inuit Association, Indigenous and Northern Affairs Canada, Environment and Climate Change Canada, and Fisheries and Oceans Canada.

Following these presentations, I will invite anyone who wishes to ask questions or provide the Panel with their comments to step up to the microphone and speak on the record. If you are an elder, you can raise your hand and one of our staff members will provide assistance. There's a microphone available to hand out.

I encourage everyone with questions or comments to please step up to the microphone and speak. You can direct your questions to the staff of the Nunavut Water Board; the applicant, Agnico Eagle; and the intervenors -- the Kivalliq Inuit Association, Indigenous and Northern Affairs Canada, Environment and Climate Change Canada, Fisheries and Oceans Canada.

Note that we need the public hearing records to be complete and accurate. We also need to assist our court reporter and interpreters. To do that, please wait until you have a microphone available to speak; then state your name and speak directly, clearly, and slowly into the microphone. Please be mindful of the interpreters as you go and avoid the use of acronyms and abbreviations, if you can.

We appreciate your participation and assistance in making sure we are heard and understood in this hearing. I will now turn the microphone to the executive director and the Board technical staff to walk you through how this application has progressed to this point.

Staff, proceed. Go ahead.

MR. HOHNSTEIN: Thank you, Mr. Chair. David Hohnstein here.

Karen is just going to load our presentation up on the laptop there; so it'll take about a minute. And then we'll get on with our presentation.

THE CHAIR: Go ahead.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, it's my understanding that the presentation -- there is a hard copy of presentation materials at the back for people who would like to

follow along. However, Karen has advised me that he has provided some updated slides to reflect the conversations that have gone on and some of the resolution of issues and so -- and to update the information that is in the hard copy presentation, and so we will be filing the electronic copy of the exhibit as it will be the most up-to-date information. So, Mr. Chair, I'll be filing that as the next exhibit in this public hearing.

MS. KOWBEL: Excuse me, Mr. Chair.

THE CHAIR: Go ahead.

MS. KOWBEL: Thank you. Christine Kowbel for Agnico Eagle.

Teresa, can you please just clarify what you just stated. I think we're not clear on what presentation you're referring to.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

I'm not 100 percent sure what changes there are on this presentation versus the hard copy. Just a couple of minor updates is what I'm told. So we will be filing the electronic version rather than the hard copy presentation so that it's the most up to date.

Thank you, Mr. Chair.

EXHIBIT 14 - Nunavut Water Board electronic copy PowerPoint community presentation

regarding an application for new Type A water licence: 2AM-WTP--- (English/Inuktitut)

THE CHAIR: Thank you.

So is the staff getting ready?

Presentation by Nunavut Water Board Staff

MR. KHARATYAN: Thank you, Mr. Chair. Karen Kharatyan, Nunavut Water Board staff.

Yes, changes are very minor, like some small dates about presentation, et cetera. You will see.

So we are here today to speak about the Type A water licence application for Whale Tail Pit development and also potential amendments to existing Type A Licence 2AM-MEA1525.

So just to clarify for everyone, this presentation is not about the project but about the licencing process for the project. So the applicant will be speaking more in detail about the project, I think, after our presentation.

So the following topics will be covered through the presentation: background information about the Nunavut Water Board, authorizations the Water Board may issue, Type A licencing process, scope of the application, application procedural history, intervenor participation, public participation, next steps in the process for the Type A application, staff contact information, questions/comments.

So as you may know, the Nunavut Water Board is an institution of public government established under Article 13 of the Nunavut Agreement. It has responsibilities and powers over the regulation, use, and management of freshwater in the Nunavut settlement area. Nunavut Water Board's objects are to provide for the conservation and utilization of waters in Nunavut, except in a national park; to provide maximum benefit from these waters for Nunavut residents and Canadians in general.

Based on its mandate and Nunavut Waters Regulations, the Nunavut Water Board may issue any of the following authorizations for the use of water and deposit of waste for undertakings in Nunavut settlement area: so authorization without licence for less than 50 cubic metres per day water or water use, Type B water licence to authorize water use between 50 cubic metres and 299 cubic metres per day, Type A water licence for more than 300 metre cubic [sic] per day. So this week's public hearing is for a Type A water licence application based on criteria set out in Schedule 2 and 3 of water regulations.

This slide shows the licencing process or beginning of licencing process for Type A water licence. So once Nunavut Water Board receives application and confirms classification of undertaking

and type of licence required as a Type A licence, the Board conducts initial technical review or concordance review and issues a notice of application, requesting full technical review from any interested party and, generally, giving 30 days for relevant comments. I should say that at this -- even at the initial stage, the applicant may be asked to provide additional information, clarification, et cetera.

So after general 30 days of technical review stage, parties or agencies, any interested person submit their representation or their written comments. And the next stage will be having a technical meeting/prehearing conference.

For this application, I should ask -- I should clarify that we did have a joint technical meeting and prehearing conference with the Nunavut Impact Review Board, as the applicant requested a coordinated review of project proposal and licence application.

After technical meeting/prehearing conference, the Board issues a prehearing conference decision -- so we did have this decision issued, again, jointly with the Nunavut Impact Review Board -- and issues a public hearing notice at least 60 days prior to having the public hearing. Again, even at this stage, the applicant may be asked to provide additional information, clarification, et cetera.

During 60 days of -- 60 days prior to public hearing, so parties and applicant may exchange written intervention and prepare for public hearing. Then public hearing is happening. We are at this stage of having a public hearing now. Generally, after public hearing, the Board may issue a decision to approve the application or not approve the application. And for a lot of cases, we may have two decisions coming from -- two potential decisions coming from Minister.

For this specific application, we have to wait for NIRB consideration. So we will go -- or the Board will issue its decision once NIRB and Minister accept or not accept the project proposal. "Accept the project proposal", I should say. If it's not accepted, no Board decision will be issued.

The next few slides include the main items included within the scope of the application. So these numbers are about water use requested by applicant. Water use requested from Whale Tail and Nemo Lakes for construction/operation from 2018 to 2022: up -- '21, '22, I would say: up to 191,000 cubic metres per year. At closure phase, water will be taken from Whale Tail Lake for flooding of Whale Tail Pit and Whale Tail Lake north basin, and closure phase starting from 2022. And you'll see that the number of water use is very high at closure because number of water required for flooding

is a little higher than for operation. And we have this last number from 2021-2028: 17,520 cubic metres per year for camp domestic use.

So this application is for the development of a mine and request -- or requires construction and operation of mine-related infrastructure, like listed in the slide: camp accommodation buildings, storage area, crusher, power plant, explosive magazine, one open pit to be developed, ore stockpiles, waste rock and overburden storage facility, landfill.

Also, the applicant is asking to make Amaruq exploration access road a little wider to accommodate the traffic of haul trucks. Fuel storage facility is also requested on-site for 500,000 litres of fuel. Development of quarries and borrow pits and development of water management infrastructure like collection ponds, retention dikes, diversion channels, and culverts. Also, water treatment plants to be operating, including for domestic water and sewage treatment plant.

Ore: The applicant is requesting to have all ore processed in -- at Meadowbank site. Meadowbank is licenced separately. They have a valid licence with the Board. So all ore will be trucking to Meadowbank site. And they require water supply for ore processing.

Tailings storage facility will be involved with the storage -- or the disposal of additional tailings. Baker Lake marshalling area and Baker Lake all-weather access road will be utilized and also airstrip and camp facilities.

Next few slides include very basic or, I would say, main items of procedural history.

You may know that Water Board received the application on July 8th, received formal on July 8th. Applicant at that time requested already the Nunavut Impact Review Board and Water Board to conduct coordinated review of application and project proposal.

On August 18, the Nunavut Impact Review Board determined that Whale Tail Pit Proposal wasn't assessed within the Meadowbank Gold Mine project proposal and, also, related to location, a little bit far from Meadowbank site. Nunavut Impact Review Board decided that a separate review will be required for this project under the terms of, I would say, Nunavut Agreement and Nunavut Planning and Project Assessment Act.

On October 3rd, Water Board started its formal processing of application and did ask the applicant whether they agree with having a separate Type A application for this project. On October 15, the Board was provided a response that applicant agreed with this

approach.

MR. HOHNSTEIN: So those dates should be 2016; right?

MR. KHARATYAN: Oh.

MR. HOHNSTEIN: Just noticed that.

MR. KHARATYAN: Yes. There is a mistake. I am sorry. Yes. These dates should be 2016. I was thinking back in -- with the Meadowbank site, maybe.

On November 3rd, the Board received completeness comments and initial technical assessment from Fisheries and Oceans Canada, Environment and Climate Change Canada, and Indigenous and Northern Affairs Canada; and on December 7th and on January 26th, 2017, the applicant provided additional information and responses to comments.

On January 27, the Nunavut Impact Review Board and Nunavut Water Board jointly distributed the Whale Tail Pit Project Proposal and water licence application for full technical review; and on March 13, 2017, Water Board and Nunavut Impact Review Board distributed a technical meeting and prehearing conference draft agenda.

March 28th, Water Board received technical review comments related to licence application from Fisheries and Oceans Canada, Environment and Climate Change Canada, Indigenous and Northern Affairs, and Kivalliq

Inuit Association. On April 7, 2017, company Agnico Eagle Mines Limited provided its preliminary responses to technical review comments.

April 21-25, the Board received proponent's and intervenors' presentation for technical meeting. April 24th, Nunavut Impact Review Board and Nunavut Water Board released jointly final agenda for technical meeting and prehearing conference. April 28-29 and May 1-2, we conducted -- or Board conducted with Nunavut Impact Review Board joint technical meeting/prehearing conference, again in Baker Lake; and on June 8th, 2017, NIRB and Water Board jointly released technical meeting prehearing conference decision report. Between June 8, July 14, company provided its commitment submissions.

Notice for public hearing for this public hearing was issued on July 17, 2017.

In August 14-15, received comments from Fisheries and Oceans Canada, Environment and Climate Change, and Indigenous and Northern Affairs Canada, and Kivalliq Inuit Association and, on August 28th, final submissions from company.

September 5 to 25, Water Board received copies of the presentations from Fisheries and Oceans, Environment and Climate Change, Indigenous and Northern Affairs, Kivalliq Inuit Association, and the company.

September 8, 2017, Board distributed a public

hearing agenda, and we are here for the public hearing now.

So I should note that applicant/all parties' contribution was very valuable. Parties I should state separately maybe: Fisheries and Oceans Canada, Environment and Climate Change Canada, Indigenous and Northern Affairs Canada, and Kivalliq Inuit Association all provided their valuable contribution for the process and participated in formal and informal discussion to resolve different issues and provided very valuable technical information.

The Board is looking at public as well, and the public is encouraged to participate in the public hearing and community session now. I should note that, if anybody is interested to provide any information, any questions, they can contact Water Board staff. We also have all documents, it was stated, on our FTP site. That is stated in the -- on the bottom of the slide; it is the FTP site.

Like Water Board Chair mentioned, today's or tomorrow's public hearing is chaired by the Board Panel and led by the Board Chair. The Water Board Panel is here to consider the evidence provided during the hearing before issuing its decision in about 30-45 days after the project accepted by Nunavut Impact Review Board and Minister. And once a decision is issued, the

public will be informed. So it's very -- and also public will be informed with the subsequent Minister decision after the Board decision.

These are contact information for all Nunavut Water Board staff present right now at the public hearing. So anyone wishing to provide even questions after the hearing, they can just take the email addresses and send an email.

This was the end of presentation, Mr. Chair. And I will take any questions now.

Thank you. Mat'na.

THE CHAIR: Thank you.

Anyone have any questions related to the Nunavut Water Board's licencing process, please state your name before asking the questions. So anyone?

Go ahead. Go ahead, INAC.

Indigenous and Northern Affairs Canada Questions

Nunavut Water Board Staff

MS. COSTELLO: Thank you, Mr. Chair. Karen Costello for Indigenous and Northern Affairs Canada.

I didn't want to take away questions from an opportunity for the public. So that's why I just waited to put up my hand.

I just had a question on process.

On Slide 26, it indicates that the Nunavut Water Board Panel would be issuing a decision in

approximately 30 to 45 days after acceptance of the project proposal by the NIRB, should that happen, and the Minister's decision -- and the Minister.

So just to confirm process timelines, does this mean that the Nunavut Water Board will not be -- Panel -- will not be issuing a decision on this licence application until after the Minister and the other responsible ministers have issued a response to the NIRB decision?

Thank you.

THE CHAIR: Thank you.

Legal counsel.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

So the process -- just a slight correction to the slide. The process will be that, as you know, the Nunavut Impact Review Board will be issuing a decision following the close of their hearing to the Minister as to whether or not the project proposal can go ahead.

In the event that the Nunavut Impact Review Board's decision is a positive one and they recommend that the project be allowed to proceed to licencing, the Minister will then consider that report and recommendation and have the opportunity to decide whether or not the Minister agrees and accepts that report. Once the Minister has -- the responsible

ministers have made their decision, then the record will close, actually, with the Nunavut Water Board.

So there will be some time for the Board and for the parties to consider whether additional information needs to be provided following the Minister's decision, and then the record will close. So the public hearing record for this will not close until after the Minister has issued their decision.

If the project is approved to go ahead, then the Nunavut Water Board would go ahead, receive the final submissions, close the record; and within 30 to 45 days of closing the record, the Nunavut Water Board will be providing a written decision as with respect to the licence.

In the event that the Nunavut Impact Review Board's decision is a negative decision and the project is not approved to proceed and the Minister also agrees to that and the project does not proceed, there will be no decision rendered in respect of the licence by the Nunavut Water Board.

THE CHAIR: Thank you.

Continue, INAC.

MS. COSTELLO: Karen Costello for Indigenous and Northern Affairs Canada. Thank you, Mr. Chair.

I appreciate the clarification on process.

I was just also trying to visualize timelines.

The NIRB, the Nunavut Impact Review Board, is estimating that it will deliver its decision on or about November 6, plus or minus a day. So under the Nunavut Project Planning Assessment Act, the Minister has -- the responsible ministers have up to 90 days, if they're going to reject, to notify/to send it back to the Nunavut Impact Review Board or up to 150 days to provide a response.

So I'm just trying to map out potential timelines as to when, assuming a positive recommendation from the Nunavut Impact Review Board and acceptance by the responsible ministers, when we can -- potentially might anticipate a closing of the record on that.

So I appreciate this for clarification.

Thank you.

THE CHAIR: Teresa.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

So the question in terms of how long the record needs to remain open after the Minister's decision is very much dependent on what additional information the Nunavut Water Board is waiting for. And if the parties have already submitted everything and nothing further is required, then the Water Board would consider closing the record almost immediately after the Minister has made her decision. If, on the other hand,

there are a number of things that are waiting and the Water Board needs to keep the record open for, you know, more time in order to be able to allow the parties to get their information in, then it would be a longer timeline.

But, obviously, the preference is the Water Board would like to close the record as soon as they possibly can and remit the matter to decision-making, because the matter would not be remitted to the Panel until the Minister's decision is -- and if it's an affirmative decision -- is received from the Water Board.

MS. COSTELLO: Thank you, Mr. Chair. Karen Costello for Indigenous and Northern Affairs Canada.

I appreciate that clarification from the Water Board's legal counsel. I have no further comments.

Thank you.

THE CHAIR: Thank you.

Is there any more comments to the presentation? Comments, concerns?

I don't see hands. So where do we move from here?

Applicants.

Presentation by Agnico Eagle Mines Limited

MR. QUESNEL: All right. Thank you, Mr. Chair. Jamie Quesnel, Agnico Eagle.

I just want to introduce the team.

From Agnico Eagle, we have Michel Julien, the vice

president, environment; Ryan Vanengen, Whale Tail Project lead; Erika Voyer, general supervisor, environment; Michel Groleau, geotechnical coordinator; Candace Ramcharan, community affairs coordinator. From Golder Associates, we have Valerie Bertrand and Colleen Prather. And from Lawson Lundell, our legal counsel, we have Christine Kowbel.

Just before I get into the presentation, I just wanted to say it's -- we're happy to be here in Baker Lake and having another conversation with the community. We believe that the process between the Nunavut Impact Review Board, the Nunavut Water Board that was established for the Whale Tail Pit Project has given us the opportunity to undertake a comprehensive review of the issues relating to water and waste. And I also would like to thank all the parties for the work that they've done over the past one-and-a-half years to help Agnico Eagle improve the proposed Whale Tail Pit Project. There's been a lot of work done by all the parties, lots of community engagement; and this has led us to a better proposal. We thank the parties for the comments and recommendations that were submitted.

So just to ensure we stay on track, on time, we have the handout of the presentation. At the back, we have a paper copy. Also, we have a lot of posters.

Okay.

THE CHAIR: Go ahead.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

I'm sorry to interrupt, but I would like to mark the presentation material, seeing as you were referring to them, as the next exhibit in the public hearing.

Thank you, Mr. Chair. Those are my matters.

EXHIBIT 15 - Agnico Eagle hard copy PowerPoint presentation of introduction and overview for community information session

THE CHAIR: Thank you.

Go ahead, applicant.

Resumed Presentation by Agnico Eagle Mines Limited

MR. QUESNEL: Thank you, Mr. Chair. Jamie Quesnel, Agnico.

Yeah, so we have the handouts at the back by the front entrance; and, also, we have posters on the back wall. Plus we have a 3-D model of the Whale Tail Pit Project that everyone can take a look at and ask any questions. So we have the handout, but we'll go through the presentation and cover some of the key items.

So, overall, we just want to comment on our activities in Nunavut and why Nunavut: politically attractive and stable jurisdiction, enormous geological potential. And, also, our success at Meadowbank and

the infrastructure we have should be leveraged in the north. And, also, the operating experience on Inuit-owned land establishes a good foundation for continued activities in Nunavut.

So this highlights the locations. Meadowbank. Whale Tail Pit Project's within the Amaruq footprint. Also, we have the Meliadine project under construction just north of Rankin Inlet with commercial production starting in September 2019.

This slide just shows the Whale Tail Pit Project footprint with the activities that's there now. This is Whale Tail Lake. This is Mammoth Lake. Our pit, our proposed pit, is located here. The existing infrastructure we have there now would be the actual exploration camp. And our access road ties in from Vault pit at the Meadowbank operation to the Whale Tail location, approximately here. And we connected -- now we're connected by road, and that happened about two weeks ago.

So Agnico's Indigenous People engagement commitment, which is part of the discussion tonight: Agnico Eagle Mines will work in partnership with Indigenous People to establish a mutually beneficial, cooperative, and productive relationship. Our approach will be characterized by effective two-way communication, consultation, and partnering.

So a key part -- I was mentioning the haul road between Whale Tail and the Vault pit location at Meadowbank. We're looking at having heavy haulers, 18 trucks, to move the ore from Whale Tail to Meadowbank. We're looking at operating 24 hours a day. It's about two-and-a-half cycles per day or five trips per day per truck. And, also, there's lighter traffic on the haul road.

But these are the two new trucks that we're looking at to pilot on the road before we make a decision. The top truck, the photo at the top, is one truck that we're looking at. It's a six by -- six wheels by six wheels, all-wheel drive, so three axles powering the front end of the truck to pull the ore. In the box of the truck, it's 150 tonnes. The photo just below that is another truck that we're looking at, and that's ten wheels by ten wheels, all-wheel drive. So there's five axles that's powering the truck, and the payload is still 150 tonnes. And the length of the truck and the trailer is about 84 feet.

And some of the new jobs -- we're looking at 150 new jobs, if the project is approved; and a good portion of these jobs are related to driving these new trucks.

So just dealing with the haul road that's now connected between Vault -- so Meadowbank Vault pit is

located here; and Whale Tail, within the Amaruq property, is located here. The red colours here are Inuit-owned land. In the centre, we have Crown land. So that's the alignment of the road between Vault at Meadowbank operation to Whale Tail.

We're going to show a short video. It just highlights the predevelopment, the operational phase of Whale Tail, and also the closure phase of the project. So it just gives you an indication of what it should look like.

So this is predevelopment. So right here, this waterbody that I'm pointing to is the Whale Tail Lake. It flows through the Mammoth channel towards Mammoth Lake. So that's the natural flow of water right now. That flow of water will change based on the pit development and also the attenuation pond.

So the next -- that's just looking at the landscape.

So for the operations, this is Whale Tail Lake south basin. The water will now go to the south into Mammoth Lake. This is the Mammoth -- Whale Tail dike, attenuation pond, Mammoth dike, Whale Tail Pit, and our waste rock storage facility. So the 3-D model shows this operational phase. So that's at the back of the room that people can take a look at.

And at closure, once we meet the water quality

objectives, the criteria for the re-flood, these dikes will be breached. That's the Whale Tail dike and also the Mammoth dikes. So the water will be breached, and the water will flow again naturally from Whale Tail north basin through the Mammoth dike -- Mammoth channel through the dike to Mammoth Lake.

And the waste rock storage facility, as we've been discussing, will be covered with, like, 4 metres of rock. So that's from the floor to the piping at the ceiling, about that thickness of rock as a thermal cover.

So we're just going to advance to Slide 16. Maybe not. Yeah, this slide just shows the operational phase of the Whale Tail Pit Project. It shows some of the infrastructure. So, again, as a video, we have the pit. We have the Whale Tail Lake south basin. And this is Mammoth Lake, the waste rock storage facility. We have a collection pond there also. Whale Tail dike, Mammoth dike. We have the Whale Tail camp, the new camp for the employees at that location. We have some -- the ore stockpiles, overburden storage for closure. We're pulling freshwater from Nemo Lake, which is up here, to the site. And, again, the haul road -- this is the connection to Whale Tail. So now you can drive from Vault all the way to Whale Tail.

Just going to show -- this is based on the

existing infrastructure of Meadowbank that we're going to use. This is all based on approvals for permits. But Q3 2018, basically the three pits plus our Vault pit, we will not be extracting any more ore at that time, and that's why it's so important for the application -- the approval of the Whale Tail Pit Project, to continue the activities at Meadowbank.

But the existing infrastructure that will be used at Meadowbank would be the tailings facility. So we have the tailings facility located here. We have our airstrip located right here. We have our camp, our existing camp; and also the process facility where we crush the rock and extract the product, the gold, that we're after. And, also, the road to Whale Tail is located here. It's not on this photo, but that's the connection at the Vault location. So that's using -- that just highlights the existing infrastructure at Meadowbank.

So I'm just going to pass this over to my colleague Ryan to make a few comments about the environmental monitoring and mitigation.

MR. VANENGEN: Ryan Vanengen from Agnico Eagle.

So for the next three or four slides, I'm just going to present an overview of our environmental monitoring.

So our environmental monitoring covers all of the areas, including the air; so we monitor the quality of the air of our site. We monitor the terrestrial environment -- so the caribou, the siksiks, the birds, but also the vegetation that the animals -- that the wildlife survive on; we monitor those.

We monitor around our mine site extensively, especially as it relates to water quality monitoring. We monitor around the ore stockpiles, and we monitor in our pit. And if we treat water, we also monitor to make sure that that treatment is effective. And then we discharge into the environment, so the nearby lakes. And we also monitor the water quality in the lakes, as well as the fish food, the habitat that the fish survive on, and also the fish themselves. So we monitor all of the water elements or the aquatic environment.

As part of -- as my colleague Jamie presented, there's an area to the north of Whale Tail Lake, and it's called the north basin. As a result of mining at Whale Tail, we'll be required to do a fish-out as well. So we'll be moving fish from the north basin into the south basin before dewatering that basin.

Before we began designing the Whale Tail Pit Project and also the monitoring programs and our baseline studies, we hosted Inuit Qaujimajatuqangit

workshops and collected data throughout, already beginning in 2014. And those traditional knowledge workshops informed our project design in the early phases. So it informed the road route. It also informed our biologists and scientists that went out in the field in 2015 to collect baseline data.

Many of the participants, including some of the Baker Lake HTO members and some other local people, were also hired in the field. So that was one way how we integrated the Inuit Qaujimajatuqangit into our design as well as our field studies.

Our field studies, as I mentioned, were primarily in 2015, but we continued those in 2016, and we continue to collect baseline data in 2017 as well to inform our project and inform decisions.

Throughout the process, we've integrated Inuit Qaujimajatuqangit; and as I mentioned, it's informed our design around infrastructure, including water management and including waste and road alignments.

MR. QUESNEL: Thank you, Mr. Chair. Jamie Quesnel, Agnico.

Just about five slides to go over the future of the Meadowbank mine, which is the Whale Tail Pit Project.

We know the Meadowbank operation will exhaust all the resources the third quarter 2018. So the Whale

Tail satellite operation will extend the life of the Meadowbank mine. That's very important for the continuity of employment, to ensure we pass on all the key learnings in the -- with that continuity. And this project relies on the use of the existing main infrastructures of Meadowbank -- the main infrastructures of Meadowbank; and, therefore, the team in place works to advance and put in place a plan to develop the new discovery as a satellite site. So there's a lot of activity.

This represents, like I was saying, the continuity of the current jobs at Meadowbank, over 800 people, also, with -- if we do receive the approvals, adding over 150 new jobs related to the full production phase of Whale Tail. And that could be up to, you know, 75, 80 Inuit jobs and create many opportunities for Inuit to benefit through training, jobs, and contracts. So that's a very important piece.

We signed the Whale Tail Pit Inuit Impact Benefit Agreement. It was signed June 15th, 2017, in this room between Agnico and the Kivalliq Inuit Association. This ensures Inuit benefit from the development of the project through training, jobs, and contracts. Our target is 50 percent Inuit employment.

Also part of that Inuit Impact Benefit Agreement: to maintain a minimum of $3.6 million to spend on

training plus one -- additional $1 million per year on initiatives to achieve the employment target; again, the business opportunities with the registered companies; additional studies on Inuit workforce barriers; and also additional studies on socioeconomic impact and benefits.

And a big part of our success is providing the jobs, the local jobs. And also trades are transferrable across Canada. And couple examples are related to the Red Seal, related to mechanics, carpenters, cooks. And these trades are transferrable. They can come back to the community in Nunavut and continue with that trade or elsewhere in Canada. So Meadowbank is that location where people can be trained and have that certification to utilize it for the rest of their lives.

Devon is from Baker Lake. He graduated as a journeyman heavy-duty equipment technician in April. He joined Meadowbank in 2011.

At the end of 2016, there were 12 apprentices. And that's plumbing -- for plumbers; carpenters; again, heavy-duty equipment technicians; mechanics; millwrights. Those trades are important not just here but across Canada. Those are very important jobs. And, also, Agnico Eagle is one of Nunavut's largest employers for Inuit apprentices.

As mentioned earlier today, Agnico Eagle wants to be in Nunavut for decades. We're developing platforms. We have Meadowbank as a platform, also Meliadine as a platform -- which can be a cornerstone for Agnico Eagle activities for several decades.

Also, Meadowbank's lessons, the ten years we've been operating in the north and success -- and this success can be leveraged in new Agnico projects in Nunavut; and we mentioned that many times with our discussion of the Whale Tail Pit Project. The key learnings, the people, the systems -- that's going to be passed on to Whale Tail but also is being passed on to Meliadine, our new project north of Rankin.

And the Whale Tail Pit Project will extend the life of Meadowbank. And in Amaruq, the exploration footprint where Whale Tail is part of that is the future of the Meadowbank division.

And, also, like I stated, having our mines managed by Inuit is our vision.

And that's our presentation.

Thank you.

THE CHAIR: Thank you, applicant.

Is there questions or comments from public? Either from other participants?

Go ahead. There's a microphone available. Just raise your hand.

Comments by the Public

TIMOTHY EVVIUK: Dewatering the part of Amaruq project, before it is dewatered, these fishes that are being removed from that lake that are going to be transferred to that lake, it's something to think about. Maybe somebody that is not too young that has a good knowledge on how to handle fish, somebody that is well-trained. I was -- I grew up on -- I grew up on the land. When Kiggavik was opened 2016, I started working there. I started working with fish and the water. And to the bottom of the lake, I also pulled out some fish from there. Those fish have to be very well cared for -- or be careful with the fish.

Some that are too young, that are being -- working, yes, it is joy that the young people are working. But for me, it is not too okay when they are going to handle the fish. How -- it has to stay -- the fish have to stay alive and survive. And when they are going to be transferred to another lake, I've seen them being suffer and I noticed and watched them, how they do it; therefore, somebody that is well-trained on how to handle -- to transfer fish. When they are going to handle the fish and transfer them to the other lake, I have noticed. I now know that they -- fish can survive after being handled.

I just wanted to put this out to you when they are

going to dewater the Amaruq site.

Thank you.

MR. VANENGEN: Ryan Vanengen from Agnico Eagle.

Thank you very much for the comments, and they're very useful. And we've also had the same experience working with the Hunting and Trapping Organization, where they've provided very good advice as well during our fish-outs at Meadowbank in the past. And we look to apply the same transfer procedures. We have also trained people that are -- that have worked for us based out of Baker Lake and also trained biologists as well that will be conducting the fish-out to ensure that the fish from the north basin are transferred effectively and are protected and then released into the south basin of Whale Tail Lake.

Mat'na.

THE CHAIR: Thank you.

Any more questions? (OTHER LANGUAGE SPOKEN). Any more questions? Okay. Thank you. There's no more.

Okay. Now moving on to intervenors. Can I start with the KIA.

Go ahead.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, as this is the first evidence that's

being presented to the Board by the intervenors, I will need to affirm them or swear them in.

And as well I believe that we have a presentation that I will be marking as the next exhibit in the public hearing.

LOUIS MANZO, ALAN SEXTON, Affirmed

MS. MEADOWS: Teresa Meadows, legal counsel for the Nunavut Water Board.

Thank you, Mr. Chair. Those are all my procedural matters.

THE CHAIR: Thank you.

You may proceed with your presentation, QIA -- sorry -- KIA. I came from -- I come from QIA. Sorry about that.

Presentation by Kivalliq Inuit Association

MR. MANZO: Thank you, Mr. Chairman.

For the purpose of time, I will explain our technical presentation, and our technical report was submitted as one single document. We stated in our technical document that we worked with the proponent and Climate Change Canada and Indigenous and Northern Affairs Canada and Fisheries and Oceans on all the issues in their mandates and also the responsibility the KIA has for the proposal of the Water Board hearing. So I will move very quickly. I will start my presentation.

KIA represents Inuit, administers and monitors certain provisions of the Nunavut final agreement in the Kivalliq Region. KIA's mission is to represent Inuit in a fair and democratic manner in the development, protection, administration, and advancement of their rights and benefits and to promote economic, social, political, and cultural well-being.

For these joint submissions, the purpose of the technical review was to ensure that the potential impacts and benefits were comprehensively assessed through scientific, socioeconomic, and impact assessment best practices and to ensure that Inuit traditional knowledge were incorporated into the impact determination, mitigation, project design, and monitoring.

A technical review was presented on August 11, 2017. At that point when we present the technical review, six issues was remained and related to caribou and one issue was remained that related to arsenic content in the waste rock storage facility. Those issues now are being resolved.

And for the purpose of the Water Board hearings, KIA, after the -- before the presentation of the technical reviews, we have several meetings with the proponent, Environment Canada, and DFO on different issues: site-specific water quality objectives, pit

lake and water quality monitoring, post-closure Whale Tail Lake and water quality, waste rock storage facility, all related to water components. And those are being resolved.

Also, with Indigenous and Northern Affairs Canada, we assessed a security deposit in the total amount of $26,285,926, the total amount of security deposit. We also work out the security management agreement, who will actually divide this total amount. And practically half of that will be for Indigenous and Northern Affairs Canada, and the other half will be for KIA. The security agreement ensures that the parties will come up to the table to review security, as needed; and, also, in any event of any other eventuality, we can come back to the table with the full total amount of security. And that is being signed by the Kivalliq Inuit Association.

The other uncertainty is water compensation. Over the course of these two weeks, Kivalliq Inuit Association has been -- go back into the table for the numbers for the water compensation -- because we hear different numbers, different dates of closure, and different values in different lakes. So we came back to the Board, and we prepared to -- before this hearing is closed -- to have a final compensation agreement for the Board in a future date.

And with that, I am finished with my presentation, if anyone have any questions.

Thank you, Mr. Chairman.

THE CHAIR: Thank you, KIA.

Any comments from public? Comments, concerns, questions? (OTHER LANGUAGE SPOKEN). Okay. There's none.

Thank you for your presentation.

I'll ask INAC to have a public presentation, and you may also want to be sworn in or affirmed with the legal counsel.

KAREN COSTELLO, Affirmed

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

Ms. Costello, it's my understanding that you have presentation materials that you'll be filing in advance of your presentation, and I believe I have three versions -- in French, English, and Inuktitut; is that correct?

MS. COSTELLO: Karen Costello for Indigenous and Northern Affairs Canada.

Yes. I can confirm we have three community presentations.

MS. MEADOWS: Thank you, Mr. Chair. Teresa Meadows, legal counsel for the Nunavut Water Board.

So, Mr. Chair, for the record, we will be marking

those as the next three exhibits in this public hearing.

Those are my procedural matters, Mr. Chair.

EXHIBIT 16 - Indigenous and Northern Affairs Canada hard copy PowerPoint for community presentation (English)

EXHIBIT 17 - Indigenous and Northern Affairs Canada hard copy PowerPoint for community presentation (Inuktitut)

EXHIBIT 18 - Indigenous and Northern Affairs Canada hard copy PowerPoint for community presentation (French)

THE CHAIR: Thank you.

You may proceed with your presentation, INAC.

MS. COSTELLO: Thank you, Mr. Chair and Panel members.

Excuse me a second. I have to say hello to the community members. I feel bad that I have my back towards them.

My name is Karen Costello, and I'm the director of resource management with the Nunavut regional office of Indigenous and Northern Affairs Canada. I'm joined here today by Ian Parsons, who is the regional coordinator with the water resources division in the Nunavut office, and he is the project lead.

I'd like to thank the Nunavut Water Board for

providing this opportunity to speak to the community representatives of Baker Lake. We appreciate their hospitality and participation in this process and giving up their community hall for the second week in a row. So thank you to you.

I'd like to talk to the community members about Indigenous and Northern Affairs Canada's participation in the Nunavut Water Board's review of Agnico Eagle's Type A water licence application for the Whale Tail Pit Project. Our name is somewhat convoluted, "Indigenous and Northern Affairs Canada"; so I'm going to shorten it as I speak to you and just refer to us as "the department".

So why is Indigenous and Northern Affairs involved in the Nunavut Water Board licencing process?

The Minister has a decision-making role under the Nunavut Land Claims Agreement. She also has a role under the Nunavut Project Assessment Act and the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

The department is also an intervenor, and we provide expert advice at meetings and hearings, such as this one. We participate through written submissions and provide technical advice and feedback to both the Nunavut Water Board and applicants, such as Agnico Eagle.

Finally, the department has a role in the

regulation and enforcement of activities that take place on federal land or activities that occur under water licences. So if a water licence is issued for this project, it will be the responsibility of Indigenous and Northern Affairs Canada inspectors to inspect the project and make sure the conditions of the water licence are being followed.

For Agnico Eagle's application as well as their amendment application to the Meadowbank licence, the department has participated in scoping of the initial applications. We have made information requests to Agnico Eagle. We participated in the technical meeting and the prehearing conference that was held here in Baker Lake in May. And we have made technical review comment submissions as well as a final technical submission in August.

The department's final written submission on August 14th identified three concerns related to water quality under the new Whale Tail Pit water licence application. On August 14th, they were considered outstanding. I'd like to tell the community members about these issues along with some specific recommendations related to the potential issuance of a water licence. Our final written submission also included two comments with regard to the amendment application for the Meadowbank water licence.

Since August 14th, the department and Agnico Eagle have continued discussions and the department's issues have been satisfied with commitments and agreement on proposed licence requirements which have been presented or will be presented tomorrow during the rest of our technical presentation to the Board for their consideration.

I'm going to take a few minutes to touch on the comments that I mentioned in our final written submission.

This is just an aerial shot looking at the north end of the Whale Tail Lake, and at the very kind of top end of the picture is the actual kind of Whale Tail, and that would be where the open pit would be.

So as I said, our August 14th had three comments about water quality.

The first concern had to do with the waste rock storage facility -- so, basically, the big rock pile that's going to be left. This rock pile will be where waste rock from the mined pit will be stored, and it will need to be covered with rock that does not have the potential to leach metals once the site is closed. The rock that covers the waste rock pile is an extremely important part of the overall design of the waste rock storage facility.

While the department accepts that Agnico Eagle

will be careful about making sure the rock used in this cover does not have the potential to leach metals, we feel it will be difficult to make sure that the cover is 100 percent non-metal leaching. The department was concerned that, if some metal-leaching rocks -- rock makes it into the waste rock storage facility cover, then seepage -- so basically water that's going to seep through the rock pile -- may need to be treated on a long-term basis.

The second concern also relates to the cover that's going on top of the rock pile. The final design for the cover will include decisions about how the freeze-thaw zone in the rock pile is expected to be and therefore how thick the cover needs to be. The department has recommended that Agnico Eagle continue to refine their analysis related to this final design, incorporating additional data from the Meadowbank waste rock storage facility as well as data from operations at Whale Tail once they have begun.

Our third concern focuses on the direction of groundwater flow around the Whale Tail Pit. If groundwater flows into the pit, arsenic may diffuse from the surrounding rock, increasing arsenic levels above recommended guidelines in the flooded pit after operations. The department has recommended to Agnico Eagle that they can do more hydrogeological studies

before dewatering the pit so they can confirm the direction of groundwater flow.

Through our discussions and through some commitments which we have worked on, Agnico Eagle has agreed to some recommendations and we work with them on some proposed licence terms and conditions that we will be presenting to the Board in our technical presentation tomorrow. So, basically, our three concerns with regard to water quality have been satisfied by commitments by Agnico Eagle.

When we met in May, the department had two concerns that we were able to resolve prior to our August 14 submission.

The first concern was whether there would be enough rock material at the site to cover the waste rock storage facility. Through some conversations and exchange of information with Agnico Eagle, the department is satisfied that there is sufficient material.

A second concern we had was how Agnico Eagle had calculated ammonia and nitrate concentrations in runoff from their blasting activities. Agnico Eagle and the department held some meetings and discussed their analysis, and the department has accepted the analysis as previously presented by Agnico Eagle. So we have no further concerns with this issue.

The final two issues that we commented on had to do with the consequential amendments to the Meadowbank mine -- Meadowbank mine water licence. The first concern in the comment raised by the department was to ensure that the modifications Agnico Eagle is planning to their Meadowbank tailings storage facility were reviewed by the Nunavut Water Board. The second issue was that the amendments to the Meadowbank licence should include a change in the term, and we had recommended that the water licence term should be modified. Instead of extending in 2025, we recommended that it go to 2026. Agnico Eagle has accepted these recommendations.

The water licence application document and all of its supporting plans is a very detailed document. In general, we found the information, the analysis, and the presentation of all this documentation was complete. We discussed and reached agreement with Agnico Eagle on some additional monitoring to address uncertainties related to long-term and post-closure water quality that were based on their models that they presented. The department recommended that Agnico Eagle undertake additional modelling as information becomes available and a more intensive monitoring program for the site to better understand the remaining uncertainties and provide more confidence to predicted

outcomes. Up-to-date modelling and monitoring during operations and closure may show that the site conditions match the predicted outcomes. However, outcomes that deviate from predictions could result in unintended impacts requiring mitigation.

A requirement of a water licence, as you have heard, is that a reclamation cost estimate must be developed. The department, Kivalliq Inuit Association, and Agnico Eagle have reached agreement on a reclamation cost estimate. They have also entered into agreement. It's called a security management agreement where it is -- Kivalliq Inuit Association and Indigenous and Northern Affairs would equally hold security. So if the total amount, which is approximately 26.3 million, as per the agreement, Kivalliq Inuit Association and Indigenous and Northern Affairs would each hold 50 percent of that. And because of that security management agreement, the department is recommending to the Board, should they issue this licence, that 50 percent of the agreed-upon reclamation cost estimate be required as financial assurance under the licence.

So that concludes the presentation, and I'm happy to take any questions.

And for those of you who might not know what gold looks like in its natural state, this is a picture of

some of the gold in the rock that hosts the Whale Tail deposit.

Thank you, Mr. Chair.

THE CHAIR: Thank you, INAC, for your presentation.

Questions, comments, concerns from public? (OTHER LANGUAGE SPOKEN). Okay. I take that there's none.

Thank you. Thank you for your presentation.

Next intervenor I'd like to call is Environment and Climate Change Canada. You may as well affirm witnesses with the legal counsel.

MELISSA PINTO, TRISH AUSER, Affirmed

MS. MEADOWS: Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, I have one presentation, one copy of this presentation, in English and Inuktitut; and I propose to file that as the next exhibit in these final hearings.

And those are my procedural matters.

EXHIBIT 19 - Environment and Climate Change Canada hard copy PowerPoint presentation for community session (English/Inuktitut)

THE CHAIR: Thank you.

Okay. You may proceed with your presentation.

Presentation by Environment and Climate Change Canada

MS. PINTO: Good evening, Mr. Chair, Board

members, elders, community members, Board staff, and other parties that have joined us here tonight. My name is Melissa Pinto, and I'm the senior environmental assessment coordinator with Environment and Climate Change Canada. With me today, on my left, I have Trish Auser, our water quality expert.

To start off, I will go through Environment and Climate Change Canada's mandate, briefly touch upon the relevant acts and legislation under the department's responsibility. I will then outline the department's participation in this water licence process and, finally, discuss the department's final written submission to the Nunavut Impact Review Board -- sorry -- the Nunavut Water Board. For each recommendation, we will indicate whether or not the issue has been resolved or still remains outstanding along with any commitments made by the proponent.

Summarized, Environment and Climate Change Canada's mandate is to conserve and protect Canada's water resources; forecast daily weather conditions and warnings; coordinate environmental policies and programs for the federal government; and, continued on, to preserve and enhance the quality of the natural environment, including air, water, soil, flora, and fauna; and enforce rules relating to boundary waters.

Environment and Climate Change Canada's mandate is

governed by the Department of the Environment Act, the Canadian Environmental Protection Act, the pollution prevention provisions of the Fisheries Act, the Migratory Birds Convention Act, and the Species at Risk Act.

Environment and Climate Change Canada provides scientific expertise within the department's mandate to the Nunavut Water Board and the Nunavut Impact Review Board, particularly in regards to air quality, wildlife -- specifically migratory birds and species at risk -- and water and sediment quality.

Environment and Climate Change Canada has participated in all phases of the coordinated review process so far for the Whale Tail Pit Project by submitting information requests; technical comments; and, most recently, a final written submission. The department looks forward to continuing its participation in the regulatory process should the project proceed.

This presentation summarizes the department's recommendations outlined in its final written submission for consideration by the Nunavut Impact -- apologies -- Nunavut Water Board.

I will now hand it over to Trish to continue the presentation.

MS. AUSER: For water quality, there was

some issues brought forward at the technical session that were resolved prior to final written submissions. The proponent proposed an updated site-specific water quality objective for arsenic and updated treatment objectives for arsenic and phosphorous. Environment and Climate Change Canada is supportive of these updated objectives that are more protective of the environment.

The first water quality issue that the department brought forward in its final written submission was in regards to the north wall pushback. The proponent is proposing to remove additional rock that has the potential to release arsenic and would encapsulate this rock in the waste rock storage facility. It is important to Environment and Climate Change Canada that the proponent determine and understand risks and benefits this pushback has on the environment, and the department anticipates that information gained during operation will help to refine predictions and management actions for the pushback.

The second water quality concern Environment and Climate Change Canada brought forward in its final written submission was regarding water quality modelling and having updated management plans to address any potential issues should conditions not be as predicted. The proponent agreed with the

recommendation put forward by the department, and thus Environment and Climate Change Canada considers this issue resolved.

The third water quality concern by the department -- that the department brought forward was regarding water quality criteria for discharges to the environment from the site. Through discussions with the proponent, criteria for water quality parameters have been determined.

The next water quality issue brought forward in Environment and Climate Change Canada's final written submission was regarding the placement of sludge or waste from the water treatment plant. The proponent agreed to place the sludge in the waste rock storage facility, and thus the department considers this issue resolved.

The proponent also agreed to conduct a separate mercury study to address uncertainties related to flooding in an Arctic environment, and the proponent will use this information to update their management plans as necessary. Environment and Climate Change Canada considers this issue resolved as well.

Finally, the department had concerns regarding the testing of sediment core samples. However, the proponent has clarified that they will continue to analyze a full set of parameters in their sediment

tests, and this issue is also considered resolved.

In summary, Environment and Climate Change Canada is generally satisfied with the information provided by the proponent and looks forward to continuing its participation and reviewing information as it becomes available in the ongoing regulatory process should the project proceed.

Thank you.

THE CHAIR: Thank you for your presentation.

Open up for questions, comments, concerns from public. Okay. I take there's no questions or concerns.

Thank you for your presentation, Environment and Climate Change Canada.

Next intervenor I'd like to call upon is Department of Fisheries and Oceans Canada. You will also have to affirm or -- for witnesses, swear or affirm with legal counsel.

MARK D'AGUIAR, LAURA WATKINSON, Affirmed

MS. MEADOWS: Teresa Meadows, legal counsel for the Nunavut Water Board.

Mr. Chair, it's my understanding that there are three copies of this presentation, being English and Inuktitut and -- oh, actually, two copies of this presentation -- English and Inuktitut, and French as

well. So they will be marked as the next two exhibits in this public hearing.

Thank you, Mr. Chair.

EXHIBIT 20 - Fisheries and Oceans Canada hard copy PowerPoint presentation for the Nunavut Water Board community roundtable session (English/Inuktitut)

EXHIBIT 21 - Fisheries and Oceans Canada hard copy PowerPoint presentation for the Nunavut Water Board community roundtable session (French)

THE CHAIR: Thank you.

You may go ahead with your presentation.

Presentation by Fisheries and Oceans Canada

MR. D'AGUIAR: Thank you, Mr. Chair.

Good evening, Mr. Chair, members and staff of the Board, the community of Baker Lake, and other community members joining us here this week. I will do my best to speak really slowly for the translators and try to explain and define some of the more complex terms.

My name is Mark D'Aguiar, and I am a senior fisheries protection biologist with Fisheries and Oceans Canada; and I am accompanied by my support staff, Laura Watkinson, who is a fisheries protection biologist, also with Fisheries and Oceans Canada.

I would like to thank the Nunavut Water Board for

providing us with the opportunity to present our technical comments and recommendations from our final written submission at this community roundtable.

In this presentation, I will provide an overview of Fisheries and Ocean's mandate. I'll briefly touch on our applicable legislation and some policies. Fun stuff. I will also provide an overview of our technical comments that we provided to the Nunavut Water Board in our final written submission. The final technical comments will touch on habitat loss, valued components, habitat alteration, changes to the lake ecosystem productivity, and the water quality and flow monitoring plan.

I would like to note, due to limited time, we will just bring to the attention only some key points, recognizing that the final written submission includes a more complete discussion of all those issues.

We also note that Agnico has agreed to most of our requests and we have been engaging with Agnico even since the Nunavut Impact Review Board hearing to further some of our discussions. And they have also agreed to further the discussions to finalize the fish and fish habitat gains/loss accountings and associated offsetting plans as well as the monitoring plans.

So the mandate of Fisheries and Oceans Canada fisheries protection program is to maintain the

stainability and the ongoing productivity of commercial, recreational, and Aboriginal fisheries. The fisheries protection program is responsible for ensuring that projects in or near water are undertaken following the requirements of the Fisheries Act and the Species at Risk Act. The fisheries protection program provides guidance to proponents on how to avoid, mitigate, or offset impacts to fish and fish habitat. The fisheries protection program is also the main program of Fisheries and Oceans Canada that is involved in the environmental assessment process defined by the Nunavut Land Claim Agreement.

So the fisheries protection program is guided by two policies. The fisheries protection policy statement provides guidance on the application of the fisheries protection provisions of the Fisheries Act. And we have the Fisheries Productivity Investment Policy: a Proponent's Guide to Offsetting, which provides guidance on undertaking effective measures to offset impacts and serious harm to fish. Offsetting measures are actions taken after avoidance and mitigation measures are implemented, and they are basically intended to provide conservation outcomes for fish and fish habitat that may reasonably be expected to counterbalance the loss of fish and fish habitat productivity as a result of negative impacts of the

project.

So the first technical comment that Fisheries and Oceans Canada presented related to habitat losses. Fisheries and Oceans Canada requested that Agnico Eagle provide -- requested illustrations as agreed to by Agnico, which Fisheries and Oceans Canada would like to receive prior to the commencement of the regulatory phase, specifically the authorization. Agnico has agreed to fulfill our requests.

The second request under habitat loss, Fisheries and Oceans Canada notes that Agnico had not adequately demonstrated the evaluation of sustainable of water quality and habitat suitability for fish in the post-closure. Fisheries and Oceans Canada had concerns respecting how Agnico would effectively evaluate and monitor the mixing or non-mixing in the re-flooded pit. DFO is also concerned that water quality from the pit could negatively affect the remainder of the lake and fish habitat.

Fisheries and Oceans Canada therefore requested that Agnico provide additional details outlining how they intend to evaluate the question of potential mixing or non-mixing of water in the pit portion of Whale Tail Lake. If the additional details cannot be provided, additional offsetting options located outside of the Whale Tail Lake basin would need to be

developed.

Fisheries and Oceans Canada does acknowledge that Agnico has committed in their final submission responses to evaluate the mixing and non-mixing of the pit through the depth profile, limnological monitoring, and depth-integrated sampling which will aid in assessing the potential for end pit lakes to support self-sustaining fish populations.

Fisheries and Oceans Canada requested that Agnico provide additional and updated information on the evaluation of end pit lake scenarios with references to address Fisheries and Oceans Canada's concern regarding end pit lakes. In our final submission with respect to habitat losses, Fisheries and Oceans expressed concern that fish would not be able to return to the north basin of Whale Tail Lake post-closure due to several concerns with the long-term water quality and physical aspects of an end pit lake.

DFO acknowledges the efforts by Agnico to address uncertainty respecting the successful creation of an end pit lake that can support healthy, self-sustaining fish populations. However, sufficient information to support consideration of this post-closure pit as fish habitat is not yet available. So, as such, additional offsetting measures should also be explored.

Fisheries and Oceans will work with Agnico, the

Kivalliq Inuit Association, the Hunters and Trappers Associations during this regulatory phase to ensure that all losses to fish and fish habitat are accounted for and fully offset.

Again, I'd like to note that DFO also notes that Agnico has recently met with DFO since the conclusion of the NIRB hearing to further resolve and discuss these issues.

Our next comment is related to valued components. So Fisheries and Oceans Canada notes that, evaluating potential fisheries loss and gains, all fishes should be weighted equally. Fisheries and Oceans requested that Agnico give equal weights to species based on the presence or absence of those species in their calculations. Agnico has agreed to our recommendation.

The next comment is in regard to habitat alteration. This refers to the alteration that will occur due to proposed flooding activities. DFO acknowledges that Agnico has provided additional clarification in their final submission response. DFO will work with Agnico and KivIA during the regulatory phase to ensure all losses to fish and fish habitat are accounted for and fully offset.

In our final written submission, Fisheries and Oceans Canada requested that Agnico provide further rationale and information regarding the calculation of

habitat losses and gains associated with all phases of the project, including the temporary flooding activities. The temporary alteration of streams due to flooding may have negative effects on fish productivity due to a loss of stream habitat. Fisheries and Oceans Canada also does not believe that temporary flooding activities will result in an overall positive change in fish productivity.

Fisheries and Oceans acknowledges that Agnico has agreed to provide raw data during the authorization phase and has agreed to work together at that time to finalize an offsetting plan. We do note that Fisheries and Oceans Canada will require additional rationalization on other calculated fish habitat losses and gains associated with the proposed offsetting plan. DFO will continue to work with Agnico and the Kivalliq Inuit Association, the Hunters and Trappers to ensure that all losses to fish and fish habitat are accounted for and fully offset should the project be approved to proceed.

The next request regarding habitat alteration was with respect to the proposed plan by Agnico in which a portion of the Mammoth dike will be altered to provide a connection between Whale Tail Lake and Mammoth Lake which is intended to permanently raise the water level of Whale Tail Lake by .5 metres. In our final

submission, Fisheries and Oceans Canada requested that Agnico provide more information regarding their plan to permanently flood Whale Tail Lake by raising that water level by .5 metres, including the rationale and the ability to sustain this condition so as to provide measurable increases in fish productivity.

It was unclear how Agnico will ensure that the lake will remain at this increased water level long-term, and DFO requires more information on those plans to make this permanent increase happen. Fisheries and Oceans Canada is not confident that this type of water level increase and associated increase in the surface area of the lake will result in productivity gains. As such, additional measures to offset the loss of fish and fish habitat may be required. But Fisheries and Oceans Canada will continue to work with Agnico Eagle, the Kivalliq Inuit Association, and the Hunters and Trappers to ensure all losses to fish and fish habitat are accounted for and fully offset should the project be approved to proceed.

The next set of technical comments that Fisheries and Oceans Canada had presented was in regard to changes in lake ecosystem productivity.

The first request relates to the potential proposed change to the lake trophic status of Mammoth Lake, so the nutrients in the lake. Fisheries

and Oceans requested clarification on whether the newly proposed changes to the project, which involved the phosphorous treatment plant, would still result in a change to the trophic status of the lake. Again, trophic status is nutrient status in the lake, to be simplified.

In their final submission, Agnico had clarified that the worst-case scenario would see a change from oligotrophic, which means very little nutrients/ microscopic plants; to mesotrophic, which has a bit more microscopic plants and algae; rather than the eutrophic, which was heavily neutrified. So we do consider this issue resolved.

Fisheries and Oceans Canada had also requested that losses caused by this trophic change in lake ecosystem from nutrient overloading be considered as losses in their calculations for offsetting. However, in their final submission, Agnico had confirmed that that smaller change was predicted to occur.

So given that a trophic change is still predicted to occur, Fisheries and Oceans Canada was unclear how this predicted change in trophic status will impact fish productivity and requested that Agnico conduct an appropriate analysis. And this can be provided prior to the authorization phase, and we've been working with Agnico and discussing for future studies on this.

Fisheries and Oceans' third request in relation to the change in the trophic status was in regards to proposed research study evaluating the change from very low nutrients, oligotrophic, to a eutrophic lake and back again. We had previously requested that Agnico undertake a detailed research study to evaluate fisheries productivity losses when altering waterbodies in such a way.

Fisheries and Oceans is unclear since the discussion of this phosphorous treatment whether Agnico was still planning to complete the proposed study. Agnico responded and explained that the study on the change to eutrophic would no longer be completed since the lake will not change to eutrophic status. However, they did propose additional monitoring and adaptive management to track changes to the downstream environments. So DFO does acknowledge Agnico's response and recommends that, in addition to monitoring and proposed adaptive management, additional studies be conducted to assess the impacts of predicted trophic change on fish productivity. Fisheries and Oceans Canada acknowledges and notes that this was part of the discussions we've had with Agnico on Sunday.

And the last set of comments that Fisheries and Oceans presented in our final written submission discusses our concerns with the water quality and flow

monitoring plans.

In discussing plan monitoring stations, Fisheries and Oceans Canada noted that Agnico has referred -- or referenced the core receiving environmental monitoring plan in addition to the water quality and flow management plan. These two plans are different plans, focused on measuring different parameters. Thus Fisheries and Oceans Canada was concerned that data generated from each of these plans may not be directly comparable or complementary. It's important to addressing future offsetting requirements that appropriate monitoring stations that are consistent and comparable are captured in any monitoring plan intended to address the requirements of a Fisheries Act authorization should the project be approved to proceed. DFO will work with Agnico to ensure that monitoring supports any research proposed as complementary measures to offset serious harm to fish.

The second request under water quality and flow monitoring plan is in regard to reference stations. Fisheries and Oceans had requested that Agnico include at least two control lake monitoring stations or reference lakes in their water quality and flow monitoring plan and include a rationale to why these reference lakes used for Meadowbank project are appropriate when the reference lakes are not in the

Whale Tail watershed. Agnico has agreed to provide the requested rationale.

And the third request for water quality and flow monitoring plan is in regard to consistency in sampling frequency. Fisheries and Oceans Canada was concerned about consistency in the amount of sampling that will occur throughout operations, closure, and post-closure at monitoring stations and requested that a consistent and increased amount of sampling be considered at all sampling stations throughout the project to acquire appropriate, comparable data to inform future studies as committed.

Fisheries and Oceans Canada acknowledges that Agnico had agreed to our requests respecting monitoring in the final submission responses, including ensuring consistency and sampling locations and sampling frequency. DFO will continue to work with Agnico to ensure that monitoring frequency and locations support any research proposed as complementary measures to offset serious harm to fish.

So, in conclusion, Mr. Chair, DFO believes that it is possible to offset the impacts to fish and fish habitat that will result from the Whale Tail Project. Fisheries and Oceans will continue to work with Agnico, the Kivalliq Inuit Association, and the Hunters and Trappers to address our concerns with proposed

offsetting plans, and this includes ensuring that all losses to fish and fish habitat are fully accounted for and fully offset.

Fisheries and Oceans believes that a robust monitoring program is necessary to be able to verify the proponent's impact predictions and detect any unforeseen changes to the aquatic environment. Therefore, we will continue to work cooperatively with Agnico, the Kivalliq Inuit Association, and the Hunters and Trappers, and the potentially impacted communities to ensure that appropriate mitigation, monitoring, and robust follow-up programs are implemented. We'll also be working with Environment and Climate Change Canada and INAC to ensure those monitoring programs are robust.

So Fisheries and Oceans Canada thanks the Nunavut Water Board, the community of Baker Lake, and the other attending community members for this opportunity to present our comments and recommendations regarding the Whale Tail Pit.

Thank you.

THE CHAIR: Thank you, DFO, for your presentation.

Now open for questions and comments from public or the participants.

The Public Questions Fisheries and Oceans Canada

TIMOTHY EVVIUK: That guy, when it's starting to cold and it's starting to freeze up, and my question is or my thought is when they are going to dewater the lake and it's starting frozen, before the fish run out, I would like to know when you are going to take the fish out.

And the other one is, in the lake, when the lake is frozen, they used to do some drilling in the Amaruq area and the Meadowbank, right in the lake. First they drill through the ice, and then they would -- they continued on into the water. And I'm wondering if the fish were touched, those saw things or something. They use some sort of substance.

This is what I wanted to ask.

THE CHAIR: (OTHER LANGUAGE SPOKEN)

MR. D'AGUIAR: Mark D'Aguiar, Fisheries and Oceans Canada.

Thank you for your question. I will pass this question on to Agnico to talk about how they do the drilling to ensure that fish are not impacted and what substances they use. Is that okay? As well as when the fish-out is and when they're going to do the fish-out.

MR. VANENGEN: Mr. Chair, it's Ryan Vanengen from Agnico Eagle.

So the first question that was asked to DFO is

related to the fish-out, and our plan right now is to fish out the north basin of Whale Tail Lake in the open-water season of 2018. So that allows us July, August, and a part of September to fish that entire basin out. And based on our experience, those three months is enough time to remove the fish, all of the fish, and carefully transfer them into the south basin. So that was the first question. And that would allow us to do it before the lake freezes.

The second question was related to our drilling practices, and this is related to exploration drilling. And when we drill through the ice, the community members comment about augering. We auger many holes to allow for our drill casings to go from our drill platform through the ice, down into the bottom of the lake, and those are called "drill casings". So within those casings is where our drills' bits go. So they contact then the sediment in the bottom of the lake. And in order to keep things from freezing, we typically circulate heated water, and we circulate the lake water through our piping to prevent freezing, and that's a continual thing. So we're recycling that water to keep things frozen [sic].

The question was around whether or not the fish would be impacted by that, and there's been a number of studies not related to fish but more related to the

benthic invertebrate communities, related to -- so the food that the fish eat; there's been some studies on the impacts of drilling. And typically there's not a significant effect, if I recall. So the effects of drilling directly on fish are unlikely and then limited effects on the food that the fish survive on.

Mat'na.

THE CHAIR: Thank you.

Any more comments, questions, concerns to the presentation of DFO?

TIMOTHY EVVIUK: Thank you for the information that you have given to me. Thank you.

BASIL KAYAVINIK: Thank you, Mr. Chair. My name is Basil Kayavinik from Baker Lake. I have a question to the Department of Fisheries and Oceans.

Those fish that are being -- going to be moved and transferred or into a different body of water, are they going to be using fishnets? And how many fishnets are you going to use? When you are going to transfer the fish from that lake, do they affect the fish? Or do they -- I am wondering how they affect the fish from the nets. Some fish do get stinky when they live long, and they cannot live long when they are trapped in the nets. How many fishnets are -- do you guys use when you are transferring fish from one lake to another?

And that is the only question that I have.

THE CHAIR: DFO.

MR. D'AGUIAR: Mark D'Aguiar, Fisheries and Oceans Canada.

I will speak to the first part of this question, and then I will pass it on to Agnico for a bit more formal discussion on what their fish-out plan will be.

DFO has a fisheries -- a fish-out protocol that requires a specific amount of nets in a consistent manner to fish out a lake. That's so that we can get very scientific data from those -- from those catches in the nets. Now, the timing of how long the fish are going to be in the net for are going to be determined in the regulatory phase, should the project be approved. We'll have discussions and consultations with community members. It'll be a part of Agnico's authorization, which we'll discuss the fish-out plan itself, how long the nets will be set for, which will include how long the fish will be stuck in those nets. Those details I do not believe have been determined yet, but it will be part of consultation discussions.

I'll pass on to you.

THE CHAIR: Applicant, go ahead.

MR. VANENGEN: Mr. Chair, Ryan Vanengen from Agnico Eagle.

So just to add to what Mark has shared with the community, he's absolutely correct. The exact number

of nets and some of those details around the timing of the sets of net haven't been determined, but we have some great experience fishing out other lakes, and we have a really -- we've worked really closely, especially in the last fish-out, with the Baker Lake Hunting and Trapping Organization, where they really were effective -- they provided very effective advice on the timing of the nets. And so we'll continue to work with them along with Fisheries and Oceans to finalize those plans.

But what we do know is that, typically, based on previous experience, we'll have likely two boats on the lake checking nets, and both teams -- both boats will have about four nets in the water. And we typically don't leave those nets in longer for two hours, which allows the fish to get caught, and that allows us to safely transfer those fish with minimal mortality. And that's based on our experience.

The other thing that is really important to note -- so we follow Fisheries and Oceans' protocols, but we also try to maximize our fishing time in the early part of the season, when the water is coldest, so in July; and that will allow us to transfer as many fish safely from the north basin to the south basin.

Mat'na.

THE CHAIR: Thank you.

Any more questions, comments, concerns from public? There's hands raised up. Pass it on.

JEFF TULUGAK: I would like to ask, when they are going to remove the fish, they're going to go see the fishnets -- wouldn't they catch lots of fishing on the nets? I'm sorry. Did I make any sense?

I'm sorry. I was just wondering if DFO was going to do some monitoring during the fish-out while the fish-out is happening at the Whale Tail Lake.

MR. D'AGUIAR: Mark D'Aguiar, Fisheries and Oceans. Thank you for that.

Typically Fisheries and Oceans has been able to go on-site to observe the fish-out and to check how they're doing their nets and sets. Whether we go or not is not a guarantee, but we have typically gone. Does that answer your question? Yeah.

THE CHAIR: Thank you.

There's another person at the back with raised hands.

CRAIG SIMAILAK: Thank you.

Just a quick question on the size of the lake you're going to be transporting the fish to. Is the lake big enough so that it can sustain the extra fish being transported into there? It won't be overpopulated with fish in that one lake?

THE CHAIR: DFO.

MR. D'AGUIAR: Thank you, Mr. Chair. Mark D'Aguiar, Fisheries and Oceans Canada.

I'll pass this over to Agnico in a moment. But my understanding, the plan has not been finalized yet, but I think the conceptual plan is still just to transfer the fish from the north part of Whale Tail Lake after it's diked just to the south part, so within the same lake.

I will pass this to Agnico now to comment.

THE CHAIR: Go ahead, applicant.

MR. VANENGEN: Ryan Vanengen from Agnico Eagle.

That's a very good question, and we are -- have been asked that in the past as well with the fish-outs that we've conducted at Meadowbank. And in our -- with the plan at Whale Tail Pit, right now we believe that the waterbody will be able to sustain the fish moved over because the south water -- or the basin -- the Whale Tail Pit south basin will increase by 40 percent in surface area and therefore the volume -- I don't know the exact calculation of the volume of that, but we believe by transferring the fish from the north into what will be a raised waterbody will act as a reservoir for those fish. So we believe that those -- the waterbody that they're being transferred into will be able to sustain the fish that have been moved.

Mat'na.

CRAIG SIMAILAK: Thank you.

THE CHAIR: Any more questions or comments, concerns from public? There's one hand raised up again.

SHAWN ATTUNGALA: Thank you.

At the Whale Tail -- the lake there, do you guys sort of know how many fish is in there, the population is, right now?

THE CHAIR: DFO.

MR. D'AGUIAR: Fisheries and Oceans Canada, Mark D'Aguiar.

I believe Agnico has done some baseline studies and they have a good idea in their baseline studies, what the population estimate will be. I don't have the number offhand.

THE CHAIR: Applicant, go ahead.

MR. VANENGEN: Ryan Vanengen from Agnico Eagle.

Based on the -- as I explained the previous fish-outs and the volume of the water and area of Whale Tail Lake, our estimate is that there will be 3,346 fish -- predominantly lake trout, a few Arctic char, and a few whitefish, and then a lot of smaller-bodied fish as well.

Mat'na.

THE CHAIR: Thank you. Any further questions or comments, concerns? Okay. There's no more questions, comments.

So we'll move on to in our agenda, move on to -- I think we are pretty well done now. So I'm about to move to closing remarks for tonight.

Closing Remarks by the Chair

THE CHAIR: Thank you, everyone, for attending tonight's community session at the Baker Lake Community Hall. Your questions and comments about Agnico Eagle Mines Limited's water licence application for the Whale Tail Pit Project were appreciated by myself, the NWB Panel members -- Ross Mrazek on my right and Alex Ningark on my left -- and staff.

Please remember that we still have a full day tomorrow of the public hearing tomorrow. The hearing will start at 9:30 because the -- I believe that the INAC and applicant need -- are requesting a little bit of time before we proceed for second day. So we will start at 9:30 AM.

And I encourage you to continue attending the hearing. As well, please let other members of the community know and attend the last day of the public hearing.

On behalf of the Nunavut Water Board, I would like to thank the applicants and the intervenors for their

presentations and answers to questions from members of the public here tonight.

Special thanks to all the elders, youth, and community members of Baker Lake for sharing their views, stories, and information with the Panel and the participants and contributing to a productive and respectful community session.

The community session is now adjourned, and we will proceed with the continuation of the public hearing tomorrow morning at 9:30 AM here at the Baker Lake Community Hall.

Let us stand for closing prayer.

(CLOSING PRAYER)

THE CHAIR: Thank you.

PROCEEDINGS ADJOURNED UNTIL 9:30 AM, SEPTEMBER 27, 2017

CERTIFICATE OF TRANSCRIPT:

I, Elizabeth Royal, certify that the foregoing pages are a complete and accurate transcript of the proceedings, taken down by me in shorthand and transcribed from my shorthand notes to the best of my skill and ability.

Dated at the City of Calgary, Province of Alberta, this 16th day of October 2017.

_____

Elizabeth Royal, CSR(A)
Official Court Reporter

EXHIBITS ENTERED

SEPTEMBER 26, 2017

EXHIBIT 5 - Agnico Eagle hard copy PowerPoint presentation entitled "Part 5 - Abandonment, Reclamation, Closure, and Security" (English/Inuktitut) 29

EXHIBIT 6 - Agnico Eagle hard copy PowerPoint presentation entitled "Part 6 - Accidents and Malfunctions" (English/Inuktitut) 29

EXHIBIT 7 - Agnico Eagle hard copy PowerPoint presentation entitled "Part 7 - Management Plans and Monitoring Programs" (English/Inuktitut) 29

EXHIBIT 8 - Agnico Eagle hard copy correspondence dated May 25, 2017, to K. Kharatyan (NWB) and copied to S. Granchinho (NIRB) entitled "The NWB Consideration of Agnico Eagle Mines Limited Whale Tail Pit Project Proposal and Revised Water Licence Applications" (English) 30