NUNAVUT WATER BOARD

Renewal and Amendment Application for Type "A" Water Licence No: 2AM-LUP1520 for the Lupin Gold Mine

COMMUNITY SESSION

VOLUME 2

Kugluktuk, Nunavut
January 15, 2020

1	TABLE OF CONTENTS	
2		
3	Description	Page
4		
5	January 15, 2020 Community Session	170
6	Opening Remarks	173
7	Presentation by Nunavut Water Board Staff	178
8	Presentation by Lupin Mines Incorporated	191
9	Questions to Lupin Mines Incorporated by the	208
10	Community of Kugluktuk	
11	Discussion	211
12	Presentation by Crown-Indigenous Relations and	212
13	Northern Affairs Canada	
14	EVA WALKER, ANNE WILSON, Sworn	221
15	Presentation by Environment and Climate Change	222
16	Canada	
17	Closing Remarks	224
18	Certificate of Transcript	226
19		
20		
21		
22		
23		
24		
25		
26		

1 EXHIBITS		
2	Description Page	
3		
4	EXHIBIT 20 - Hard Copy, PowerPoint Presentation, 211	
5	Mandalay Resources Corporation (Community Session)	
6	(English)	
7		
8	EXHIBIT 21 - Hard Copy, PowerPoint Presentation, 221	
9	Lupin Mine Presentation to the Nunavut Water Board	
10	by Environment and Climate Change Canada Community	
11	Session) (English/Inuinnaqtun)	
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		

1	Proceedings taken at Kuq	gluktuk Recreation Complex,
2	Kugluktuk, Nunavut	
3		
4	January 15, 2020	Community Session
5		
6	NUNAVUT WATER BOARD	
7	L. Toomasie	The Chair
8	A. Hanson Main	Vice-Chair
9	A. Ningark	Panel Member
10		
11	NUNAVUT WATER BOARD STAF	FF
12	T. Meadows	Legal Counsel
13	S. Autut	Executive Director
14	K. Kharatyan	Director of Technical Services
15	B. Kogvik	Director of Board
16		Administration and
17		Communications
18	R. Dwyer	Manager of Licencing
19	D. Donald	Technical Advisor
20		
21		
22		
23		
24		
25		
26		

Ī		
1	APPLICANT	
2		
3	LUPIN MINES INCORPORATED)
4	K. Lewis	Project Manager
5	B. Labatte	Chief Development Officer,
6		Mandalay Resources
7	C. Kowbel	Legal Counsel, Lawson Lundell
8	D. Hohnstein	Consultant, Lupin Mines
9		Incorporated
10	K. Bocking	Principal, Golder Associates
11	S. Wilkins	Project Manager, Water
12		Resources, Stantec Consulting
13	A. Tong	Senior Geotechnical Engineer,
14		Stantec Consulting
15	J. McKinley	Senior Hydrogeologist, Stantec
16		Consulting
17	K. Ruptash	VP Projects, Nahanni
18		Construction
19		
20		
21		
22		
23		
24		
25		
26		

1	INTERVENORS	
2		
3	CROWN-INDIGENOUS RELATIONS AND NORTHERN AFFAIRS CANADA	
4	G. Okonkwo	Manager of Water Resources
5	N. Noah	Land Administrator Major
6		Projects
7	G. Wiatzka	VP Director of Mining, Arcadis
8	S. Dewar	Director Resource Management
9		(Via Teleconference)
10	D. Kohlenberg	Department of Justice
11		(Via Teleconference)
12		
13	ENVIRONMENT AND CLIMATE	CHANGE CANADA
14	E. Walker	Senior Environmental
15		Coordinator
16	A. Wilson	Lead - Water Quality Expert
17		Support
18		
19	INTERPRETERS/TRANSLATORS	5
20	B. Kogvik	Inuinnaqtun Language
21		Translator
22		
23	J. Otokiak	Inuinnaqtun Language
24		Translator
25		
26	J. Albert, CSR(A)	Official Court Reporter

1	N. Poitras Sound Technician
3	(PROCEEDINGS COMMENCED AT 7:03 PM)
4	Opening Remarks
5	THE CHAIR: Welcome, everyone. Before we
6	start, I think we need a control for the kids,
7	controlling the kids here tonight. I need somewhat
8	behaved to have the allow them to keep quiet.
9	Okay. Good evening, everyone, and welcome to the
10	Community Session of Nunavut Water Board public hearing
11	for the application file filed by Lupin Mines
12	Incorporated I will refer to them as "LMI" for
13	short to renew and amend the existing Type "A" Water
14	Licence Number 2AM-LUP1520. My name is Lootie
15	Toomasie, and I am the chair of the Nunavut Water Board
16	and the hearing chair for this public hearing.
17	This public hearing is being conducted by the
18	Nunavut Water Board to consider an application by LMI
19	asking the Nunavut Water Board to issue a renewed and
20	amended water licence for the terms of 7 years, updated
21	subsequently to 12 years to authorize activities
22	associated with the final closure and reclamation of
23	the Lupin Mine Project, which sits approximately 285
24	kilometres south of Kugluktuk on Contwoyto Lake. The
25	mine has not been operated since 2005 and has been
26	sitting in care and maintenance for the last 15 years.

- 1 The application requests the use of 250,000 cubic
- 2 metres of water per year during the first two years of
- 3 active reclamation, followed by the use of 5,000 cubic
- 4 metres per year during post-closure activities as well
- 5 as permanent deposit of waste.
- 6 Before we proceed with tonight's session, please
- 7 let us begin with a prayer. Let's stand for prayer.
- 8 Opening Prayer
- 9 THE CHAIR: Thank you once again.
- 10 For those of you who were not here this morning
- 11 when we started the public hearing, I have a few brief
- 12 housekeeping and introductory remarks, and then I will
- 13 turn the microphone over to the executive director and
- 14 Staff of the Nunavut Water Board, the Applicant, and
- 15 Intervenors.
- Before I do, please note that there's
- 17 interpretation available throughout the hearing, and
- 18 the earpieces are available from the table located as
- 19 you came in. Channel 1 is for the floor, and Channel 2
- 20 for English, and Channel 3, Inuinnagtun.
- I also want to remind everyone to sign in on the
- 22 sign-in sheet located at the table just before you came
- 23 in. To ensure we have accurate and complete record of
- 24 those who have participated in this part of the
- 25 public -- a part of our public hearing, we ask everyone
- 26 to sign in. As the sign-in sheets will be attached to

- 1 the Board's record of proceedings and decision report
- 2 for this file, please fill in the sheet legibly and
- 3 accurately.
- 4 And there will be coffee, tea, and snacks located
- 5 at the table along the side, along the side table
- 6 that's at the back there. Please help yourself to the
- 7 refreshments. There are agendas for the hearing and
- 8 the Community Session available at the table as you
- 9 came in. Please pick one up and follow along.
- Before we proceed to the presentation on the
- 11 agenda, I would like to introduce the Board members and
- 12 Staff who are joining us here today.
- I will be chairing this panel, and with me today,
- 14 as members of the decision-making panel responsible for
- this file, are Board members Amanda Hanson Main on my
- 16 right, and to my left is Alex Ningark.
- 17 Several Staff members who have contributed to the
- 18 NWB's administration and technical review of this
- 19 amendment application are present, along with legal
- 20 counsel to the NWB. I will introduce the individuals
- 21 attending today. When I say your name, please wave so
- 22 that people will know who you are. I'll make sure I
- 23 pronounce -- say your name properly this time.
- 24 Stephanie Autut, executive director; Karén
- 25 Kharatyan -- I have a hard time pronouncing that last
- 26 name all the time. I never get used to it -- director

176

- of technical services; Ben Kogvik, director of Board
- 2 administration and communication at the back in the
- 3 interpreting booth over there; Derek Donald, technical
- 4 advisor; Richard Dwyer, manager of licencing at the
- 5 back by the entrance; and Teresa Meadows from Meadows
- 6 Legal -- Law, legal counsel to the Board, sorry.
- 7 In addition, we have two interpreters available
- 8 for simultaneous translation: Ben Kogvik, in-house
- 9 interpreter to the Board, Joe Otokiak, who is
- 10 originally from Cambridge Bay, now living in
- 11 Yellowknife at the back there.
- For audio support, we have with us Norbert Poitras
- 13 from PIDO. If you experience any difficulties with
- 14 your headsets, Norbert will be able to assist you.
- To ensure an accurate record of the proceeding is
- 16 kept, we have with us a court reporter, Julie Albert,
- 17 from Dicta Court Reporting Inc. She's at the back and
- 18 wearing red. To assist Julie, I ask that all parties
- 19 please state their name prior to speaking.
- 20 With that, I will now turn the microphone over to
- 21 Stephanie Autut, executive director, to give you an
- 22 overview of tonight's session.
- 23 Stephanie.
- 24 MS. AUTUT: Thank you, Mr. Chair.
- The Board will start tonight's session with a
- 26 presentation by the Nunavut Water Board's technical

- 1 staff, which will be followed by a presentation by the
- 2 Applicant, Lupin Mines Incorporated. Following that,
- 3 we will have presentations by two agencies,
- 4 Crown-Indigenous Relations and Northern Affairs,
- 5 "CIRNAC", and Environment and Climate Change Canada,
- 6 "ECCC".
- 7 After each presentation, we will invite anyone who
- 8 wishes to ask questions or provide the panel with their
- 9 comments to step up to the microphone and speak on the
- 10 record. If you are an Elder, you can speak at any time
- 11 throughout these proceedings. We just ask that you
- 12 raise your hand to be recognized by the chairperson and
- 13 wait to speak until one of our staff members can get a
- 14 microphone for you so that we can ensure your comments
- 15 are included on the record.
- 16 For everyone here tonight, I encourage you all to
- 17 ask questions or share your comments with the Board by
- 18 stepping up to the microphone. You can direct your
- 19 questions to the Staff of the Nunavut Water Board, the
- 20 Applicant, Lupin Mines Incorporated, and the
- 21 Intervenors, Crown-Indigenous Relations and Northern
- 22 Affairs and Environment and Climate Change Canada.
- 23 As Mr. Chair said at the start of the public
- 24 hearing this morning, it is very important to the Board
- 25 that we have an accurate record of the information,
- 26 questions, and comments that we hear during this public

- 1 hearing, so we ask that to assist our interpreters and
- 2 the court reporter, please wait until you have a
- 3 microphone before you speak, then state your name, and
- 4 speak directly, clearly, and slowly into the
- 5 microphone. Please be mindful of the interpreters as
- 6 you go, and avoid the use of abbreviations, if you can.
- We appreciate your participation and assistance in
- 8 making sure we are all heard and understood in this
- 9 hearing and that this hearing is conducted in a
- 10 productive and respectful manner.
- I will now turn the microphone over to the Board's
- 12 technical staff to walk you through how this amendment
- 13 and renewal application has progressed to this point.
- So, Derek, if you would please give an overview of
- 15 your presentation.
- 16 Presentation by Nunavut Water Board Staff
- 17 MR. DONALD: Thank you very much,
- 18 Stephanie. My name is Derek Donald with the Nunavut
- 19 Water Board, and so I'll just provide you a brief
- 20 presentation, as Stephanie had mentioned, that focuses
- 21 mostly on the Water Board, sort of, procedures that
- 22 mining companies and other Proponents, sort of, have to
- 23 go through when applying for a water licence.
- 24 So this presentation here is for the Type "A"
- 25 Water Licence 2AM-LUP1520, so that's for the Lupin Mine
- 26 Project. So just to briefly go over what this

179

- 1 presentation will look like, first I'll give you a bit
- of background info, and then I'll describe, sort of,
- 3 the different types of authorizations that the Water
- 4 Board can issue to different Proponents, go through the
- 5 licencing process, the different types of licences that
- 6 can be issued, and then I'll talk a little bit about
- 7 the project itself, but very briefly. I'll leave most
- 8 of the details about the project itself to LMI, or
- 9 Lupin Mines Incorporated. And I might throw in some
- 10 acronyms there, like, for the Nunavut Water Board,
- "NWB"; Lupin Mines Incorporated would be "LMI";
- 12 Crown-Indigenous Relations and Northern Affairs Canada
- 13 would be "CIRNAC"; and Environment and Climate Change
- 14 Canada would be "ECCC". So I'll just give you a
- 15 heads-up because it's a lot of acronyms to keep track
- 16 of.
- 17 I'll tell you what. I'll just come stand at the
- 18 front of the room. Why not. It will be awkward for
- 19 me, but will that work? That's all right. I've got a
- 20 pretty loud voice.
- 21 MS. MEADOWS: No.
- 22 MR. DONALD: No? Okay.
- 23 MS. MEADOWS: Because the interpreters --
- 24 MR. DONALD: Oh, of course.
- 25 MS. MEADOWS: -- can't hear you.
- 26 THE CHAIR: Is there a microphone at the

- 1 back?
- 2 MR. KHARATYAN: Oh, it's working.
- 3 MR. DONALD: It's working now? Okay.
- 4 MR. POITRAS: Do you want a mic?
- 5 MR. DONALD: Oh, it's working now.
- 6 Apologies. Okay. So moving on.
- 7 So Nunavut Water Board is an institute of public
- 8 government established under Article 13 of the Nunavut
- 9 Agreement, and we -- it holds responsibilities and
- 10 powers over the regulation, use, and management of
- 11 freshwater in the Nunavut Settlement Area.
- 12 Sorry, just a little bit of technical
- 13 difficulties. I'm thinking the battery must have just
- 14 died on us. Okay. Yeah, thank you.
- So the objectives of the Nunavut Water Board are
- 16 to provide for the conservation and utilization of
- 17 waters in Nunavut, except in national parks, in a
- 18 manner that provides optimum benefit for the residents
- 19 of Nunavut, in particular, and then Canadians in
- 20 general as well. Next.
- 21 So based on the Water Board's mandate, we may
- 22 issue any of the following authorizations to regulate
- 23 the use of water and/or deposit of waste for activities
- 24 occurring within the Nunavut Settlement Area, so these
- 25 are the type of licences or permits we issue to people
- or groups looking to conduct a project in Nunavut.

- 1 So the very first one, an approval without a
- 2 licence, this is for the smallest projects, usually
- 3 just a few people for a single year and the use of less
- 4 than 50 cubic metres of water. The next is a Type "B"
- 5 Water Licence, so these are for medium-sized projects,
- 6 so this would be a lot of your exploration mining,
- 7 mining projects, and those would fall between 50 and
- 8 300 cubic metres of water use; and then, finally, the
- 9 Type "A" Water Licence, so that's the one we're
- 10 discussing right now, these are for real -- quite large
- 11 major projects.
- 12 So Lupin Mines Incorporated was an operational
- 13 mine, obviously a big project, and they've had a Type
- 14 "A" Water Licence for quite a few years now, as we'll
- 15 see. Next slide.
- 16 So just a little bit about the process that we
- 17 actually take Proponents through when applying for a
- 18 project. Initially, we receive our application, right
- 19 up here. Followed by the application we get from a
- 20 Proponent, we send it out for initial, sort of,
- 21 preliminary review and check just to make sure that it
- 22 has enough information there that it can be evaluated
- 23 properly. So we'd send that out to the different
- 24 intervening parties such as CIRNA and Environment
- 25 Canada.
- Then following that, if there's any additional

- 1 information requested, the Proponent would provide it,
- 2 and then we provide the notice of application and the
- 3 starting of the 30-day technical review period, and so
- 4 that's this stage right here, and this is really the
- 5 major review of the project, so the major looking at
- 6 all the technical specifics.
- 7 Oh, actually go back, Karén. Sorry. I'm going a
- 8 bit slow.
- 9 And then here, the parties submit their written
- 10 interventions or their written representations, so they
- just make their technical comments, and then we hold
- 12 the technical meeting.
- 13 So we had the technical meeting for this back in
- 14 the beginning of June this year here in -- here in
- 15 Kugluktuk. Next.
- 16 Following the technical meeting, we hold a
- 17 pre-hearing conference, and so that's typically the day
- 18 after to just, kind of, discuss the procedural matters.
- 19 Following that, we -- sorry, we provide -- we send out
- 20 this pre-hearing conference decision report, and, sort
- 21 of, that summaries -- summarizes all the information,
- 22 or, I guess all -- yeah, all the information up to --
- 23 up to that point of the technical meeting and then
- 24 provides the Proponent -- the Proponent with, sort of,
- 25 any comments or commitments that they may have brought
- 26 up through the technical review. And then in that, we

- 1 also provide this notice of public hearing with a
- 2 minimum of 60 days, 60 days' notice, so we actually
- 3 provided quite a bit more because we provided that back
- 4 in June. Next slide.
- 5 Then following that, we hold the public hearing,
- 6 so that's where we're at, at this stage. Sort of up to
- 7 now, the Proponents often provide us with some more of
- 8 their technical information, as well, so we've really
- 9 gotten down to the finer details of the project.
- 10 So then following our public hearing, it can, kind
- 11 of, go two ways. The NWB issues a decision to approve
- 12 the application, or we'd issue a decision not to
- 13 approve the application, so that's the first step; and
- 14 then the second one in red here, that's where the
- 15 Minister of Crown-Indigenous Relations, they make a
- 16 decision whether or not to agree with us or to,
- 17 essentially, disagree with us, not approve our
- 18 decision. And so, again, that, I guess, would be the
- 19 end, at which point they would either receive their
- 20 water licence, or they wouldn't, and further
- 21 discussions would be had.
- 22 So for the Lupin Mines Project itself, this is --
- 23 this is, sort of, a photograph of it. A little bit
- 24 dated at this point. So the project location -- oh,
- 25 next slide -- is here, about 285 kilometres southeast
- 26 of Kugluktuk, so that's where we are up here. Here's

- 1 the project, the Lupin Mine, and then Yellowknife is
- 2 down right here, just for reference. Next slide.
- And so as I'd mentioned, this project has quite a
- 4 bit of history. Commercial gold mining started in
- 5 1982. Then they were in production for almost 20
- 6 years. They went into care and maintenance a little
- 7 bit, back in production, but since 2005, they've been
- 8 in care and maintenance ever since. Next slide.
- 9 So, again, going all the way back, the Water Board
- 10 has issued a number of three different water licences
- 11 to this project, so I guess beginning in 2000, the
- 12 first water licence here went from 2000 to 2008, the
- 13 second one then went from 2009 to 2014, and then the
- one that they are currently permitted under is from
- 15 2015 to 2020, so this is the year which the licence
- 16 expires, and so I'll just go over those a little bit --
- 17 the next slide in a little bit more detail.
- So this first one issued back in 2000 was issued
- 19 to Kinross Gold Corporation. It allowed for 1.7
- 20 million cubic metres per year of water use and deposit
- 21 of waste for a mining undertaking. It was then amended
- 22 in 2001, so a change in financial security. Then in
- 23 20 -- in 2007, it was assigned from Kinross Gold
- 24 Corporation to LMI, Lupin Mines Incorporated, and then
- 25 in 2008, finally, it was amended again just to extend
- 26 the term of the licence. Next slide.

- 1 So then the next licence was issued in 20 -- in
- 2 2009 to Lupin Mines, allowed again for 1.7 million
- 3 cubic metres of water per year for a mining
- 4 undertaking. In 2009, then, so pretty quickly, an
- 5 amendment was issued related to the monitoring, and
- 6 then in 2014, an emergency amendment allowing for the
- 7 discharge of some effluent to -- from specific
- 8 facilities that met licence requirements. Next slide.
- 9 So now this is the current licence that they are
- 10 licenced under, issued in 2015. Now, this allowed for
- 11 the use of -- this is -- I'll mention, too, this is the
- 12 start of their care-and-maintenance phase, so this is
- 13 where they really, kind of, went into care and
- 14 maintenance. At the time, they had some intentions of
- 15 potentially starting up production again, which they
- 16 obviously never ended up doing, so this licence was a
- 17 little bit different, but it allowed for 5,000 cubic
- 18 metres of water use per year during care and
- 19 maintenance, and then if they got up and running again,
- 20 it would allow for 500,000 cubic metres per year, sort
- 21 of, during that transition to a production mine again,
- 22 and then this licence was amended three times over the
- 23 last, I guess, couple years all related to security.
- 24 Okay, slide.
- 25 So the scope of the application, so this is what
- 26 they're really applying for right now. This is what

- 1 we're discussing. Again, I'll be quite brief, and I'll
- 2 let Lupin Mines go over the details of their project,
- 3 but they're applying for a 12-year renewal of the
- 4 licence. Originally, we had discussed, kind of, more
- of a six-year, but following the technical meeting,
- 6 we'd agreed that 12 years is more appropriate; and then
- 7 water use of 685 cubic metres per day, 100 for camp,
- 8 585 for industrial uses; and then once remediation is
- 9 complete, a reduction back down to that 5,000 cubic
- 10 metres per year, sort of, during the monitoring.
- 11 So they'll also have waste disposal on site.
- 12 Obviously with the final closure of a mine, some of
- 13 that waste is, kind of, going to be left on site, but
- 14 managed properly before they leave it. So they do have
- 15 some petroleum hydrocarbon contaminated soils, some
- 16 hazardous materials including asbestos. They have a
- 17 fair bit of waste rock on site that is potentially
- 18 acid-generating, some demolition waste, so such as the
- 19 buildings, and some wastewater disposal; and then right
- 20 now, what we've been talking about is about 2.5 years
- 21 to complete the closure and reclamation activities, and
- then right now, ten, ten years of post-closure
- 23 monitoring, so following their reclamation. Right now,
- 24 we have it at ten -- ten years they'll be monitoring
- 25 the site, and that would bring to the end of the term
- of the 12-year renewal, if issued, and so at which

- 1 point, you know, there would be lots of time to discuss
- 2 if more monitoring is needed, or if not, in fact,
- 3 everything is performing as it has -- as was planned.
- 4 Okay. Next slide. Yeah, thank you.
- 5 So here, I'll just bring out -- break out a little
- 6 bit more of the procedural history and the details
- 7 within that, so just so you get a sense of, sort of,
- 8 the -- all the steps of the process that we've been
- 9 through.
- 10 So it was July 27th in 2018 that LMI initially
- 11 provided us with their application, be it an incomplete
- 12 application, and then in 2019, the beginning of 2019 is
- 13 when they supplied us with their final documents, such
- 14 as their translated summaries.
- 15 Following that, we distributed the application for
- 16 the completeness check, as I had described earlier.
- 17 Then on March 4th of this year, we received comments on
- 18 the completeness check and initial technical review
- 19 from Crown-Indigenous Relations and Northern Affairs
- 20 Canada.
- On March 19th, we received LMI's response to those
- 22 comments, and then on March 29th is when we issued the
- 23 notice of the application and invited all parties for
- 24 that really substantial 30-day technical review. So
- 25 the Nunavut Water Board has received technical comments
- 26 both from CIRNA and from Environment Canada, so both of

- 1 those intervening parties.
- 2 Then on May 17th is when we received LMI's
- 3 response to Intervenors' comments, and on June 6th and
- 4 7th is when we held the technical meeting in person
- 5 here in Kugluktuk. Next slide.
- On June 18th is when we issued the pre-hearing
- 7 conference decision report, and this outlined a number
- 8 of commitments made by LMI with respect to more
- 9 information they'd, essentially, provide us before we
- 10 held this public hearing here.
- 11 And then so on November 15th, so a month and a
- 12 half before Christmas there, sort of thing, is when LMI
- 13 had provided all this information and the vast majority
- of the commitments they had, sort of, fulfilled.
- Then in December, on the 13th, we received our
- 16 final written submissions from Environment Canada and
- 17 Climate Change -- Environment and Climate Change
- 18 Canada, and on December 6th and December 18th, we
- 19 received two separate written submissions from
- 20 Crown-Indigenous Relations and Northern Affairs Canada,
- 21 at which point they did state that they were still
- 22 under discussion about the current security that LMI
- 23 hold -- or that CIRNAC holds of LMI's and then also
- 24 how, exactly, they're going to be returning that
- 25 security to them so that they have money to clean up
- 26 the site.

- 1 Then on January 3rd of this year, 2020, we
- 2 received the Applicant's response, and on January 27th,
- 3 we held a brief conference call, again, just to, sort
- 4 of, discuss aspects of a security to make sure that we
- 5 came into this public hearing, and everybody, kind of,
- 6 knew we were all on the same page, you know. Next
- 7 slide.
- 8 Then on January 10th -- it says "January 20th",
- 9 but that's supposed to be "January 10th" -- we received
- 10 copies of the public hearing presentations from all
- 11 parties; and then on January 13th, the NWB distributed
- 12 the final agenda for the public hearing; and then that
- 13 brings us to today and tomorrow, in which the Nunavut
- 14 Water Board will -- we hosted the public hearing this
- 15 morning, and then we're having the Community Session
- 16 right now, obviously, and then again tomorrow morning,
- 17 we'll finish off with the public hearing.
- So all submissions are available on the Nunavut
- 19 Water Board's FTP site, so that means that all of the
- 20 information that we have gathered, you know , all the
- 21 environmental information at the Lupin mine site we do
- 22 have on the internet, we do have on our Public
- 23 Registry, on our public FTP site, so it is accessible
- 24 to the public, which means any one of you could go on
- 25 there and look, look through all that information.
- 26 It's quite a bit, but some of it's -- some of it's

- 1 worthwhile.
- 2 So throughout this application process, as I'd
- 3 mentioned, we did receive participation from CIRNAC and
- 4 Environment Canada, and they helped us, sort of, move
- 5 the application to this stage of the process. We also
- 6 recognize and appreciate participation of these
- 7 intervening parties and appreciate, sort of, all the --
- 8 all the help they've provided. Next slide.
- 9 So this Community Session right now, the public
- 10 hearing, this is for the Water Board, for us to really
- 11 obtain feedback from the community here, so it's
- 12 very -- it's very nice to see quite a large crowd that
- 13 showed up here, and we encourage everyone here to ask
- 14 any questions that you might have because this is,
- 15 really, where we -- where we are looking to hear, you
- 16 know, how the public, how the community feels about the
- 17 project, and if you would like to provide any questions
- in writing, as well, Richard's -- Richard Dwyer's email
- 19 is up here, and you can also speak to him at the back,
- 20 and you can send him, sort of, a written email so that
- 21 if you'd prefer to put a statement in writing, rather
- 22 than speaking at the microphone, that option is
- 23 available to you.
- Next slide -- actually, we can skip these couple
- 25 of slides because they were, sort of, just duplicated,
- 26 and then lastly here, I've just got a list of emails

- 1 for all the Water Board Staff that's sort of been
- 2 involved in this process so far.
- 3 Lastly, I'd just like to thank you all, too, for
- 4 coming, and I guess if you have any questions or
- 5 comments, we'd love to hear them.
- 6 MS. AUTUT: Okay. Thanks, Derek.
- 7 So as we've seen, Derek's walked through what the
- 8 Water Board's process is here in this meeting. Are
- 9 there any questions from the public related to the
- 10 Water Board process that we'd like to ask Derek?
- Okay. Seeing no hands right now, we'll move on to
- 12 the presentation from the Applicant, Lupin Mines. So
- 13 if at any point during the presentation, or afterwards,
- 14 we're going to questions, you can have questions for
- 15 the Applicant or the Board or any of the other parties.
- 16 Just bear that in mind.
- So, Karyn, who will be presenting for the
- 18 Applicant?
- 19 MS. KOWBEL: Christine Kowbel, legal
- 20 counsel for Lupin Mines.
- 21 Belinda Labatte will be -- will be commencing the
- 22 presentation and then handing it off to various members
- 23 of the team.
- 24 MS. AUTUT: All right. Thanks, Christine.
- 25 So, Belinda, whenever you're ready.
- 26 Presentation by Lupin Mines Incorporated

- 1 MS. LABATTE: Good evening. Thank you,
- 2 Mr. Chair, the Nunavut Water Board. Delighted to be
- 3 here in Kugluktuk with you this evening. Members of
- 4 the community, hello. Belinda Labatte, Mandalay
- 5 Resources and a director of Lupin Mines.
- You've heard, this evening, about the Nunavut
- 7 Board, Nunavut Water Board process, and I'd like to
- 8 tell you and share with you the story of our company
- 9 and how we came to be here, which is also my story.
- 10 I've been with Mandalay Resources since 2009, which is
- 11 when this company was started, a much shorter history
- 12 than Lupin Mines.
- 13 This is a picture of one of the mines that we own
- in Australia, and this is a process where they're
- drilling to see what we have underground, and those
- 16 containers are sheltering the community from two
- 17 things: Noise and dust. Next slide.
- I won't go into this. Since we are a public
- 19 company, we are listed on the Toronto Stock Exchange,
- 20 we are obligated, when we talk about the future, to
- 21 tell you that the future may not happen, and so these
- 22 are the forward-looking statements that we are required
- 23 to put in our presentation.
- So who are we? What do we do? How do we work?
- 25 We are an international mining company. We have
- 26 projects in Australia, the southern part. It's a very

- 1 difficult time right now for the Australians. They're
- 2 dealing with a lot of fires. Fortunately, we are a
- 3 fire shelter because we have a lot of infrastructure in
- 4 that area, so we're watching very carefully what's
- 5 happening in Australia. We also operate a mine in
- 6 Sweden, which is very far north, as you can see, not as
- 7 far north as Kugluktuk, but also very cold weather and
- 8 a lot of cold-weather issues, and that is how we came
- 9 to own Lupin Mines.
- 10 So we produce, approximately, with, between the
- 11 two mines, 90 to 100,000 ounces of gold and another
- 12 metal called antimony.
- Our first mine, so when Mandalay came into
- 14 existence, was this mine in Australia, Costerfield,
- 15 which we acquired in 2009, and that's when I also was
- 16 there to assist with that process, and then we acquired
- 17 the Björkdal Mine, Elgin, in 2014.
- 18 It took us some time to learn about the company
- 19 and learn about Lupin and the operation, and we had
- 20 made the decision, a number of years -- a few years
- 21 after, to move from the care and maintenance process to
- 22 final closure.
- In terms of our company, we are well-financed. We
- 24 have over \$20 million of cash to support our two
- 25 operating mines and the work that we're talking about
- 26 here today. Next slide.

- 1 So that's what we do. Who we are, we are based in
- 2 Toronto. I am from Toronto, though I grew up in
- 3 Montreal, and we have a pretty international group.
- 4 Our CEO came with the company when we acquired our mine
- 5 in Chile, which is currently not operating, but he
- 6 moved to Toronto with his family. He's from Australia.
- 7 Our CFO is from Australia, and we have a board of
- 8 directors whose role is to oversee all the work that we
- 9 do at Mandalay, including any projects that are at the
- 10 end of their lifecycle and have to be closed, and I'm
- 11 going share with you some stories about what we have
- done in our company as a responsible company.
- We will have already closed mines. This is not
- 14 the first one, but it is the largest. I would like to
- 15 mention for the benefit of yourselves that you know
- 16 that we have done this before, and for the Nunavut
- 17 Water Board, that our directors, Mr. Terry Ackerman,
- 18 Mr. Peter Jones, have significant experience with mine
- 19 closures in Arizona, in the United States, Argentina.
- 20 Dominic Duffy was responsible for closing two mine
- 21 sites in Chile, and Peter Jones has experience working
- 22 in closures in Canada, and they fully support the
- 23 process that we're going through today. Next slide.
- How do we work? This is something I really enjoy
- 25 talking about because I want to share with you that we
- 26 are a values-based company. Living our values is about

- 1 people, for themselves, having values that we share as
- 2 individuals and as a company.
- 3 These values were not just words that came out.
- 4 They were developed by groups of people who worked
- 5 together in communities similar to yourselves, and
- 6 these have not changed in many years, and we purposely
- 7 decided to talk about the word because it means
- 8 something, so let me just tell you what it means to me
- 9 and what it means to us.
- Top-left is "safety". Everything we do in our
- 11 company, it's safety first. We only produce gold if it
- 12 is produced safely. It is the Number 1 item on an
- 13 agenda whenever we meet with our general managers and
- 14 every board meeting that we have; and, here, when we go
- 15 through our process, the care and maintenance and if we
- 16 go through, and as we intend to, when we get our
- 17 licence that we are requesting, the closure of Lupin
- 18 Mines, it is safety first. Our contractor understands
- 19 this, and the philosophy is that that matters. The
- 20 people who work with us will work safely.
- "Integrity" is about doing what you say you will
- 22 do and doing so even when nobody is looking or
- 23 listening, and when we speak and when we communicate,
- 24 we follow through with what we say we're going to do,
- and this has been absolutely key in our communications
- 26 with Nunavut Water Board, with CIRNAC, with anybody

- 1 that we talk to about Lupin or other mines.
- 2 "Responsibility", this is really why we are here.
- 3 We made a decision that we want to close Lupin Mines,
- 4 that this was the right thing to do because we are a
- 5 responsible mining company, and this is part of it. We
- 6 are not generating any revenue from this. This is
- 7 about sharing in what everybody's objective is, which
- 8 is the right thing to do, is to have the appropriate
- 9 and most efficient way to put the environment back to
- 10 what it was, I would say, in perhaps an even better
- 11 condition than as it was, when we look at the pictures,
- 12 and do so with everybody being on the same page and
- 13 having as transparent a process as we can. So
- 14 "responsibility" is all about taking responsibility for
- 15 our actions and the environment.
- 16 "Performance and innovation", we want to look
- 17 always at the best way to do something and focus on
- 18 performance and create value for all of our
- 19 stakeholders, not just our investors, as we are a
- 20 public company, but for our employees, that they
- 21 believe in the work that they do, and for our community
- 22 members, that they value our presence in the community;
- 23 and I would like to just reinforce this because where
- 24 we do operate, in Sweden and in Australia, we have
- 25 taken the time to do significant work on community
- 26 surveys and finding out what people think, including,

- 1 as well, the employees. I personally did this work a
- 2 number of times for the company.
- And "agility" is about moving in a way that is
- 4 responsive. We don't want to be the last person to
- 5 show up at any meeting or with any process. We want to
- 6 do it well, properly, and be responsive.
- 7 I would like to say that I thank the CIRNAC and
- 8 Nunavut Water Board in working in a collaborative way,
- 9 and I think that we've shown that these values, they
- 10 are workable, and we can work together with this mind
- 11 set. Next slide.
- So I'll just read out to how we -- how we look at
- 13 our work and how we conduct our work.
- We believe that our employees live and work safely
- 15 and that they experience satisfaction from high
- 16 performance, and, again, whether a mine is operating or
- it's in a crisis situation or it's in care and
- 18 maintenance or in closure, this holds true. The
- 19 communities in which we operate value our presence.
- 20 Our environmental impact is minimized and causes no
- 21 permanent harm. Everything in the filed -- final
- 22 reclamation and closure plan speaks to this. We have a
- 23 large and diversified set of customers, and, finally,
- 24 that our shareholders realize a superior total return
- on their investment and that they, too, support our
- 26 corporate values. Next slide.

- 1 Let me just walk you through a few of the projects
- 2 before we talk about Lupin Mines because this is part
- 3 of our story.
- We acquired a company in Chile, and similar to
- 5 when we acquired Elgin, there were projects there that
- 6 were not operating and were not a focus of the company.
- 7 Without any government intervention, without anybody
- 8 telling us what to do with those projects, we
- 9 proactively spent the money to close them.
- 10 La Cascada mine is one such example. It was a
- 11 gold, silver mine not operated by us. It was a
- 12 complete rehabilitation of the mine site. There was no
- 13 security on this mine. We took the initiative to
- 14 rehabilitate it.
- The work that we did there included closing
- 16 underground access, dismantling, removing
- 17 infrastructure, profiling the waste dumps, and local
- 18 vegetation was used throughout. It was approved by the
- 19 regulator in Chile and closed in 2014, and the bottom
- 20 photo, although not very clear, shows you that it looks
- 21 very well-integrated into the environment.
- 22 The next slide is about Furioso mine, which was a
- 23 second mine that we made a decision to close. This had
- 24 an issue of acid-generating rock operated by prior
- 25 owners. There, we were backfilling the whole open pit,
- 26 capping of the pit with several layers, including a

- 1 complete asphalt layer. This closure, we also capped
- 2 an underground portal as it was a combination
- 3 open-pit/underground mine. The closure was also
- 4 approved by the Chilean government, and there was no
- 5 security on this mine. It was something that we did
- 6 proactively. Next slide.
- 7 Here's some pictures to share. Again, this was
- 8 never operated by our company, but we recognized that
- 9 an environmentally responsible company, this is also --
- 10 this is what we expect of ourselves, what the Board
- 11 expects, and what our investors expect, and you can see
- 12 here, there's some layers of asphalt, the closing of
- 13 the underground portal. Next slide.
- 14 Wastes were relocated, and a hundred percent of
- 15 the infrastructure was closed and removed, nothing
- 16 needed to be there after the fact, and you can see here
- 17 a picture of a three-year process whereby it looks very
- 18 well-integrated into the environment.
- 19 So now we're talking about the Lupin mine. You
- 20 have a bit of an idea of our story and where we work
- 21 and what we have done, and -- we can go to the next
- 22 slide -- I'm going to walk you through a bit of the
- 23 work that we've done over the last few years before
- 24 Karyn, who has been instrumental, a very valued team
- 25 member here in leading us through to the point that we
- are here today, which is really, for us, a milestone.

- 1 There is a tremendous amount of work that has been done
- 2 by Karyn and by the individuals that you see beside me,
- 3 behind me, and not everybody is here today, so that
- 4 goes to show you that we do value the expertise of
- 5 people in their field. We don't know everything, and
- 6 we're bringing in the people who know it best for very
- 7 specific parts of this mine.
- And so if we go back to 2017, it was still under
- 9 care and maintenance. We, as a company, we had to do a
- 10 lot of learning about working in this environment with
- 11 Karyn. She was the brain. We had only acquired the
- 12 mine in 2014, and so we needed some time, but we worked
- 13 through it, and we conducted environmental effects
- 14 monitoring, numerous studies in 2017, including diesel
- 15 sampling, asbestos-materials assessment, and we
- 16 conducted a Phase 1 and 2 environmental site
- 17 assessment, and you can see that already at that point,
- 18 we started to remove some hazardous waste. Next slide.
- 19 If we go forward to the next year, 2018, still in
- 20 care and maintenance, but we continued the work that
- 21 was required of us by the various groups, and the
- 22 environmental effects monitoring program continued. We
- 23 started to do reclamation at Cell 5, progressive
- 24 reclamation. Esker material was now being used to
- 25 cover the tailings, which is great because it puts us
- 26 in a really good position to finish the work over the

- 1 next two years. We did fuel-tank cleaning and soil
- 2 sampling from tailings areas and land farm and more
- 3 work to remove building content, all kinds of things
- 4 that you can imagine, furniture, electronics, and some
- 5 other hazardous materials, paints, and aerosols. In
- 6 this year, 32,000 kilograms of hazardous materials were
- 7 removed from site for disposal.
- 8 Lupin 2019, care and maintenance activities
- 9 continued. We, again, completed more studies because,
- 10 at this point, we were getting a lot of clarity that
- 11 moving into final closure and reducing our
- 12 environmental liability was the right thing for the
- 13 company and, we believe, a positive thing for the site
- 14 as we did not see any other options to restart this
- 15 mine, and it has been under care and maintenance since
- 16 2005.
- 17 We had new studies that were requested from us at
- 18 the technical meeting, which was mentioned earlier, and
- 19 these studies have helped LMI de-risk the closure
- 20 process, so even though there's a lot of work here,
- 21 it's also -- it also helps de-risk everything that
- 22 we're going to do going forward.
- The studies that we did include studies on how
- 24 climate change will impact the site and permafrost, the
- 25 esker coverage of old tailings, how much we need and
- 26 where, water-quality levels, geochemistry analysis,

202

- 1 hydrology studies, and dam risk assessments.
- 2 Remediation works continued with Dam K repairs as well.
- One other thing that is important, and Kenny,
- 4 who's sitting behind me to the right, was we had made a
- 5 decision, with the support of our board of directors,
- 6 to go through closure and that we could do so in an
- 7 efficient way, but we needed a contractor to help us,
- 8 and I believe Kenny will speak a little bit about the
- 9 work that he's going to do on site and what the next
- 10 two years are going to look like for LMI.
- I think at this point, I'm going to hand it over
- 12 to Karyn Lewis, so if you haven't met Karyn, Karyn
- 13 knows everything about the site, and we have Kenny
- 14 beside her, and then I'll come back and just say a few
- 15 words about how we communicate with one another and how
- 16 important this is to closing a site of this magnitude.
- 17 MS. LEWIS: Hi. I'm Karyn Lewis from LMI.
- 18 I recognize some of you out there from working at site.
- 19 So we're going to be talking now about what we're
- 20 going to be doing at site for 2020, 2021, and, finally,
- 21 with the final ice road in 2022.
- 22 Nahanni Construction is going to be helping carry
- 23 out our closure over the next two years, and I'm going
- 24 to have Kenny Ruptash here go over what's actually
- 25 going to -- what their team is actually going to be
- 26 completing over the next couple years.

- 1 MR. RUPTASH: Hi, everyone. I realize that
- 2 some of you can't see me, so I'll stand up so you can
- 3 see my face real quick just so you can come -- you know
- 4 who to talk to in the end -- sorry. It's Kenny Ruptash
- 5 with Nahanni -- just so you know who to come and talk
- 6 to after the presentation, after everything's said and
- 7 done here. I'm here to, kind of, walk you through what
- 8 the process is for cleanup.
- 9 A little bit about our company first. We're born
- 10 and raised in the north. In '86, the company was
- 11 started. When 90 North actually built the arena here,
- 12 Nahanni was involved in it. We came up and did the
- 13 concrete. We've only done work in the north, stuck to
- 14 the north, and we've -- I guess, about ten years ago, a
- 15 little bit better, 12 years ago, branched into
- 16 remediation, so we cleaned up the Tundra Mine in NWT,
- 17 there's nine mine sites on Gordon Lake, heavily
- 18 involved in giant mine cleanup, so I say that because
- 19 we've got some expertise in-house on how to -- how to
- 20 clean up mines, how to do it properly, and how to train
- 21 and bring up employees along the way.
- 22 So starting the project out, we'll be constructing
- 23 an ice road. Coming out of the Yellowknife, we will
- 24 bring all the equipment and materials to actually do
- 25 the -- do the cleanup. Once we arrive at the site,
- 26 we'll be blasting open the crown pillar, the pillar of

- 1 rock to open up the underground. The reason we're
- 2 doing that is in Year 2 there's some heavily
- 3 contaminated rock and soils that going to be going into
- 4 the underground, so it's getting -- or I might be
- 5 talking too quick here. Apologies. The bad rock, the
- 6 rock that is going to contaminate the environment the
- 7 most, is going to be put into the underground so it's
- 8 not able to contaminate anymore.
- 9 There's two main streams of work, when we arrive
- 10 at site. One, at the mine site, we're going to be
- 11 deconstructing all the buildings, taking them down,
- 12 demolishing them, putting them into a landfill. At the
- 13 same time, we'll be pulling esker from the esker source
- 14 and putting it on top of the tailings ponds,
- 15 essentially, creating a barrier between the old
- 16 tailings and the environment so that water's not
- 17 getting into it, snow's not getting onto it, animals
- 18 can't access it. It's, essentially, the animals will
- 19 be walking on esker now, as opposed to the old
- 20 tailings.
- 21 The covering of the tailings is going to be done
- 22 in Year 1. We'll also be treating and discharging
- 23 water. Once it's clean, we'll put it out into the
- 24 environment. From there, we're going to be doing some
- 25 reinforcing of a couple of dams so that they are
- 26 stronger or more robust, longer lasting. That will be

- 1 done in Year 1, as well, and then the complete
- 2 demolition of the mine site will be completed in Year 1
- 3 as well.
- 4 Year 2, there's a cover similar to the one we put
- 5 on the tailings overtop of the entire mine site when
- 6 the buildings are gone so that animals can't access it,
- 7 and water can't get to the old infrastructure. It's,
- 8 essentially, just an esker cover in the -- in the
- 9 tundra.
- Now, through all that, I realize that's very a
- 11 high level in what we're doing, but the -- there are
- job opportunities throughout that some are fairly
- 13 clear. Operating equipment, we can list the equipment,
- 14 but there's equipment operators. There's direct work,
- 15 but there's also what I call "indirect work", or what
- 16 we call "indirect work": Kitchen staff, site services
- 17 for road maintenances, maintenance, fuelling, watering.
- 18 We, at Nahanni, have been speaking with Helen, and
- 19 I'm going to -- I'm going to say her last name wrong,
- 20 so don't tell her, Helen Tologonak and Miranda
- 21 Atatahak, about job placement and postings so that the
- 22 community knows what the specific jobs we're looking to
- 23 fill are, where to apply for the jobs, and how to --
- 24 who to speak to and how to go about speaking to them.
- We intend on having about 70 people on site at a
- 26 time, so there's lots to be done, lots of positions to

- 1 be filled. If you have any more questions, I'm happy
- 2 to -- happy to talk to you after the meeting, or even
- 3 if you have any questions right now, to come up and
- 4 ask, but as far as the work, at a high level, that's --
- 5 that's the intention. I don't know if there's anything
- 6 else you guys ... okay. Then I'll turn it back over.
- 7 MS. LABATTE: Thank you, Karyn and Kenny.
- 8 Could we go to the next slide, please.
- 9 So in terms of the communications, we have
- 10 realized that it is really important to be in
- 11 continuous communication with one another, so what this
- 12 looks like, so my work, I work in the -- on the
- 13 leadership team, and I do not do Lupin Mines'
- 14 day-to-day. I'm responsible for all the projects that
- 15 are not operating, and Karyn works on Lupin Mines every
- 16 day and is key in keeping everything going on time, on
- 17 budget, and ensuring that everybody has the right
- 18 information.
- 19 We will be working very closely with our
- 20 contractor, Nahanni. We will have regular
- 21 communications as we go through full closure, and we
- 22 have the support of engineers and consultants to ensure
- 23 that everything we do is sound from an environmental
- 24 perspective and an engineering perspective. At the
- 25 same time, with all the government groups, Environment
- 26 Canada, CIRNAC, Nunavut Water Board, we will engage

- 1 with anybody who would like to speak to us about this
- 2 project and as required, and with the community here
- 3 this evening, it's a great opportunity to get any
- 4 questions from you about the work that we are doing,
- 5 and if you prefer in writing, that is fine as well.
- 6 Next slide.
- 7 I'd just like to take a moment to talk to you
- 8 about a project in the vicinity, Ulu, which also came
- 9 to us when we bought the Elgin company and the Björkdal
- 10 mine.
- 11 It is located approximately 523 kilometres north
- 12 of Yellowknife. I would say that's the same as from
- 13 Toronto to Montreal, but that may or may not be
- 14 relevant, but, for me, it gives me some sense of how
- 15 long it would be to get there. It is with the KIA, the
- 16 Kitikmeot Settlement Area of Nunavut, and we had been
- 17 performing care and maintenance on this project, which
- 18 is a gold project.
- 19 We're very happy that we found a solution with
- 20 this project, and very late last year, we concluded our
- 21 work with Blue Star Gold, who has acquired the Ulu
- 22 property and the licence and will be beginning an
- 23 exploration campaign on-site. I cannot speak for Blue
- 24 Star, but I do know that they have some interesting
- 25 ideas for the region to explore the site. They will
- 26 assume all the environmental liabilities, past and

- 1 present, of the Ulu property.
- 2 So with that, I've shared with you who we are,
- 3 what we do, and how we work, how we came to obtain
- 4 Lupin Mines, and what we will be doing going forward,
- 5 and I will pass it back to you, Mr. Chair, unless there
- 6 are any questions from the community, and we look
- 7 forward to working through this with you.
- 8 Thank you very much.
- 9 MS. AUTUT: Okay. Thank you, Belinda.
- 10 So at this point, are there any questions from the
- 11 public to Lupin Mines? Anybody care to ask any
- 12 questions or make comments relative to the project?
- 13 Sir, if you want to come up to a mic, yeah, and
- 14 just tell us who you are so it gets on the record, any
- 15 one of them, yeah.
- 16 Questions for Lupin Mines Incorporated by Community
- 17 Representatives
- 18 MR. KAIYOGANA: Hello. My name is Richard
- 19 Kaiyogana.
- 20 For the Lupin production, I was working at the
- 21 Lupin mines in 1981, to start off. I probably started
- 22 early.
- I just want to get -- when you're mining, a gold
- 24 mine is different from diamond mining, and the most
- 25 important thing is -- is the tailings. To extract
- 26 gold, you have to have some chemicals to get the gold

- 1 out, so the main thing I'm concerned about is the
- 2 tailings, get all that done, cleared off for the
- 3 wildlife, any wildlife, and that, as an Elder, I think,
- 4 kind of, speak for the Elders, too.
- 5 Thank you.
- 6 MS. AUTUT: Thank you, Richard.
- 7 Did Lupin want an opportunity to respond or
- 8 acknowledge the comment?
- 9 MS. LABATTE: Thank you for that, that
- 10 comment, and I do agree. We do have gold mines in our
- 11 portfolio, and all of them have tailings dams, and we
- 12 take great care with our tailings dams and how we
- 13 manage that, and every one of them is in compliance.
- 14 With respect to Lupin Mines, it is absolutely a
- 15 priority. There's been a great deal of work done on
- 16 how we will manage that and the covering of those
- 17 tailings dams with esker, and I think we're on the same
- 18 page, and, yeah, I would say it's also one of the first
- 19 things that we're going to do in the timeline of the
- 20 closure of this mine. As you've heard earlier, there's
- 21 been some work already.
- Thank you.
- 23 MS. AUTUT: Karyn, go ahead.
- 24 MS. LEWIS: Thank you. Karyn, LMI.
- I just wanted to also note that we will have, you
- 26 know, monitoring years after to make sure that the

- 1 performance of the -- at the tailings cover, et cetera,
- 2 and still be doing testing. We're not finishing the
- 3 closure work and then walking away. We will have a
- 4 number of years of monitoring and looking at and making
- 5 sure that everything is performing adequately before
- 6 we're done at site.
- 7 MS. AUTUT: It may be beneficial, to the
- 8 folks in the audience, if you wanted to elaborate a
- 9 little more on what the management of the tailings
- 10 process is going to look like, if you want to get into
- 11 a bit more detail, recognizing that there weren't a lot
- 12 of details specific to that in the presentation, and
- 13 not everybody was here today to hear your presentation
- 14 this morning.
- 15 MR. RUPTASH: Yeah, Kenny here with Nahanni,
- 16 Kenny Ruptash.
- 17 The cover that's going on top of the tailings is a
- 18 fairly thick cover of esker. The intention is that the
- 19 tailings stay frozen, and the permafrost comes into the
- 20 cover a little bit. There will no -- there is no
- 21 opportunity for water to get in, wildlife to access it.
- 22 It's going to be completely covered.
- 23 After it's covered, there's equipment or
- 24 instruments that are put in to monitor how frozen it
- 25 is, how much -- or if there's any water coming out,
- 26 what is the quality of the water. There is not

- 1 supposed to be, so if there is, we -- where we have
- 2 instruments in to check it. There is enough -- there's
- 3 monitoring going on so we know how the cover is
- 4 working, and we can confirm that it is working.
- 5 MS. AUTUT: Great. Thank you for that.
- 6 Are there any other questions from the -- from the
- 7 public?
- 8 No. Okay. So we'll move on, then, to the
- 9 presentations from the other Intervenors, so if we
- 10 could have Crown-Indigenous Relations and Northern
- 11 Affairs come up to the table, please.
- 12 Discussion
- 13 MS. AUTUT: So while we're getting Godwin
- 14 set up here, we're going to go through some legal
- 15 proceedings, so I'll hand the mic over to Teresa.
- 16 MS. MEADOWS: Thank you, Stephanie. Teresa
- 17 Meadows, legal counsel for the Nunavut Water Board.
- 18 So my apologies, Mr. Chair. I forgot to indicate
- 19 to everyone that I had marked, as an exhibit, the hard
- 20 copy of the PowerPoint presentation that Mandalay just
- 21 presented at the Community Session, and I will be
- 22 marking that as the next exhibit in the public hearing,
- 23 so my apologies. I should have done that before you
- 24 spoke, but it is in the record now as the next exhibit
- 25 in the public hearing.
- 26 EXHIBIT 20 Hard Copy, PowerPoint

- 1 Presentation, Mandalay Resources Corporation
- 2 (Community Session) (English)
- 3 MS. AUTUT: Okay. Godwin, the floor is
- 4 yours.
- 5 Presentation by Crown-Indigenous Relations and Northern
- 6 Affairs Canada
- 7 MR. OKONKWO: Good evening, everyone. My
- 8 name is Godwin Okonkwo. I am the manager of water
- 9 resources with Crown-Indigenous Relations and Northern
- 10 Affairs Canada in Iqaluit. I am joined here by a
- 11 consultant Gerd from Arcadis, and Noah Noah, who is my
- 12 colleague. He works in the lands division in Igaluit.
- 13 I would like to thank the Nunavut Water Board for
- 14 this opportunity to make a presentation at the public
- 15 hearing regarding Lupin Mines Incorporated application
- 16 to amend its water licence. I would also like to thank
- 17 the community of Kugluktuk for attending the public
- 18 hearing this evening.
- 19 At this time, I'd like to state that our
- 20 presentation had been completed before the latest
- 21 submissions by Lupin Mines and our discussions with
- them up until midnight yesterday, so some of the issues
- 23 we're going to present, they have responded, and we
- 24 have resolved them. There's only one issue that's not
- 25 completely resolved.
- 26 So throughout the presentation, I will refer to my

- 1 office, Crown-Indigenous Relations and Northern Affairs
- 2 Canada, as "CIRNAC", and so here is an outline of what
- 3 my presentation will be: I will start with mentioning
- 4 our roles and our responsibility, and then I will
- 5 mention about how we've contributed to this review
- 6 process for the licence, and then talk about the
- 7 technical review comments.
- 8 So we have three major comments. The first two
- 9 have been resolved. The last one has not completely
- 10 been resolved. So the first is on tailings and waste
- 11 rock, the second is on closure and reclamation
- 12 planning, and then the third is on a reclamation
- 13 security cost estimate.
- So CIRNAC, we have a mandate to co-manage
- 15 freshwater resources and manage Crown land in Nunavut
- 16 under the following laws and agreement, so under the
- 17 Department of Crown-Indigenous Relations and Northern
- 18 Affairs Act, the Nunavut Agreement, under the Nunavut
- 19 Land Claims Agreement Act, the Nunavut Waters and
- 20 Nunavut Surface Rights Tribunal Act and regulations,
- 21 the Nunavut Planning and Project Assessment Act, the
- 22 Territorial Lands Act and regulations, and the Arctic
- 23 Waters Pollution Prevention Act.
- I would like to say the department also
- 25 administers and enforces regulatory authorizations that
- 26 are related to Nunavut's Crown land and freshwater

- 1 resources.
- 2 So CIRNAC participates in water licences processes
- 3 administered by the Nunavut Water Board, along with
- 4 other interested parties, providing technical advice
- 5 and expertise for the Board's consideration.
- 6 So up until now, the department has participated
- 7 and made a few submissions to the Nunavut Water Board
- 8 regarding the application to amend and renew the Lupin
- 9 water licence.
- 10 So by March 4th, 2019, it was information request,
- 11 and then we attended and did a presentation here in
- 12 Kugluktuk at the technical meeting on June -- between
- June 6th and 7th, 2019, and then we reviewed
- 14 submissions for some of the commitments that came from
- 15 that technical meeting, and we submitted that December
- 16 6th, 2019, and then our final submission was December
- 17 8, 2019.
- I'd just like to say, as well, that we've also had
- 19 several meetings with LMI -- LMI is the company -- to
- 20 discuss all of the issues -- some of these issues we
- 21 have, and we resolved a lot of them.
- This picture was taken by my staff when they
- 23 visited the site, and so this is just me -- I know some
- 24 of you know the Lupin mine, but just to give a brief
- 25 overview of the mine site.
- 26 So Lupin mine site is situated in Nunavut

- 1 Kitikmeot region, approximately 250 kilometres west of
- 2 Arviat and 285 kilometres southeast of Kugluktuk.
- 3 Lupin operated as a gold mine beginning in the 1980s.
- 4 It has been in care and maintenance since 2005, and is
- 5 presently under closure.
- 6 So Lupin's mine application today is for renewal
- 7 and amendment of its existing Type "A" Nunavut Water
- 8 Board Water Licence, which proposes final closure and
- 9 reclamation for the mine site.
- 10 I'd like to say at this point that CIRNAC
- 11 anticipates that a final closure plan of the mine site
- 12 should be detailed enough to capture the full work to
- 13 be carried out and eliminate, as much as possible,
- 14 unknowns, environmental liabilities, or any surprises
- 15 from the site into the future.
- So our first issue was on the potential
- 17 contamination that can happen from the waste rock used
- 18 as construction material. So CIRNAC wanted to know how
- 19 the waste rock was used for construction of
- 20 infrastructure such as dams to know if we need some
- 21 geochemical testing.
- 22 LMI indicated that much of the -- most of the
- 23 waste rock will be encapsulated by permafrost. LMI
- 24 also restated its commitment to post-closure
- 25 monitoring, so after closure, they will keep
- 26 monitoring, and CIRNAC was satisfied, and we will

- 1 consider this issue resolved.
- 2 Another issue we had was on the waste rock storage
- 3 dome design and seepage. So LMI indicated they would
- 4 make the mill-site footprint area smaller by pulling
- 5 the rocks that were used as the base for the buildings
- 6 and then covering it with clean soil in a dome-shaped
- 7 structure. So CIRNAC has been discussing, with LMI, on
- 8 a detailed schedule of work on how they are going to do
- 9 this to reduce the environmental impact and make it
- 10 stable for the long term. I just want to say that
- 11 CIRNAC is satisfied with LMI's response on this issue,
- 12 so we think this issue is resolved.
- 13 We had -- CIRNAC identified another issue with --
- 14 we wanted to know how LMI will deal with tailings. I
- 15 heard a community member talk about tailings, so we
- 16 wanted to know how the tailings that are exposed right
- 17 now would be managed and how the tailings that may be
- 18 exposed, when they are reducing the water in the
- 19 tailings management area, will be managed.
- 20 CIRNAC is satisfied, and LMI confirmed, that they
- 21 will cover the tailings on site, and they also had a
- 22 commitment to provide more details on the cover design
- 23 so that we can confirm the stability and erosion
- 24 control during this licencing process, so we consider
- 25 this issue also resolved.
- Another issue we were worried about was what we

- 1 call the Human Health Ecological Risk Assessment. So
- 2 the objective of the Human Health Ecological Risk
- 3 Assessment is to evaluate the potential risk to human
- 4 health and environment from the contamination
- 5 associated with the historical operations when the site
- 6 operated.
- 7 In order -- in order for us to be satisfied that
- 8 we can -- that they will derive a site-specific target
- 9 level for any potential risk and to use that
- 10 site-specific target level to define areas that will
- 11 require remediation and risk management.
- 12 LMI responded to CIRNAC indicating commitment of
- 13 the provision of a post-closure monitoring plan
- 14 following discussion with stakeholders one year after
- 15 issuance of the licence, and CIRNAC was satisfied with
- 16 this. We feel like the issue, for us, is resolved.
- 17 So another issue is the geotechnical details of
- 18 engineered structure. So our idea here was since Lupin
- 19 mine is working towards final closure of the site, we
- 20 thought we wanted more details about the geotechnical
- 21 design for us to be able to evaluate if the proposed
- 22 closure meant that the way that they've decided to
- 23 close will be protective of the environment in the long
- 24 term.
- 25 CIRNAC's concern, one of our main concerns was the
- 26 long-term stability of the dams in the tailings

- 1 management area, which is expected to keep
- 2 acid-generated tailings from being washed into the
- 3 environment.
- 4 LMI provided some more details through various
- 5 memos and also committed to providing more details
- 6 during the licencing process. CIRNAC is satisfied with
- 7 their response.
- I had a question for them in the afternoon, if the
- 9 extra information would be included in their final
- 10 closure plan, and at the time, they said they were not
- 11 thinking of revising -- updating the closure plan with
- 12 the extra information.
- 13 Finally, our last issue is on the reclamation
- 14 security cost estimate, and so the reclamation cost
- 15 estimate they have provided so far, we -- CIRNAC had a
- 16 challenge because we thought we didn't have adequate
- 17 details to justify the cost estimate they provided.
- So, currently, the security estimate we hold --
- 19 and "security estimate" is money we hold so that we're
- 20 sure that the site is cleaned and reclaimed. So we
- 21 currently hold \$26.1 million, and the estimate that LMI
- 22 has done to do the work is about \$23 million, but the
- 23 position of CIRNAC is that the Crown does not want to
- 24 have any liability or responsibility to clean the site,
- 25 so we're recommending that the Crown retain the entire
- 26 26.1 million, and as the site is cleaned, is reclaimed,

- 1 there can be a release of funds to LMI.
- 2 And so connected to that is what we call a
- 3 "security release framework", so we've have been
- 4 working together with LMI to determine how we're going
- 5 to be releasing the funds to them when they complete
- 6 the work, and what CIRNAC's position is, is if the work
- 7 is done, that sometimes it's validated by an engineer,
- 8 somebody who will stamp and sign and say the work is
- 9 done, and there's a confirmation that environmental
- 10 liability is reduced, then CIRNAC will consider
- 11 releasing the part of the funds for that work.
- So of these three major issues we had, the first
- 13 two we think have been resolved successfully, and the
- 14 first two are long-term stability of the cover and
- dams, management of tailings exposed when water levels
- 16 are lowered.
- 17 And the last issue of the insufficient information
- 18 for security estimation, on that last issue, CIRNAC
- 19 has -- our position is the Crown does not want to have
- 20 any liability to clean up the site. We want to retain
- 21 the amount of money we are currently holding. We
- 22 support progressive reclamation and progressive release
- 23 of the funds as work is done, but it has to be based on
- 24 the criteria that I just mentioned. So you do the
- 25 work, it's validated. There's evidence of reduction in
- 26 environmental liability, and then we can consider a

- 1 refund.
- 2 Koana.
- 3 MS. AUTUT: Thank you, Godwin.
- 4 So before we take questions, we're going to take a
- 5 short break, give people an opportunity to stretch and
- 6 grab something to drink and a snack, so we'll come back
- 7 in 15 minutes; okay?
- 8 Thank you.
- 9 (ADJOURNMENT)
- 10 MS. AUTUT: All right. So if we could
- 11 take our seats, we'll get started here in the next
- 12 couple of minutes.
- 13 So before we move on to Environment Canada, are
- 14 there any questions to Godwin related to the CIRNAC
- 15 presentation?
- If not, okay, so I'm going to ask Teresa to swear
- in Environment and Climate Change Canada.
- 18 MS. MEADOWS: Thank you, Stephanie, and
- 19 thank you, Mr. Chair. Teresa Meadows, legal counsel
- 20 for the Nunavut Water Board.
- 21 So for the benefit of community members, the --
- 22 earlier today, the representatives from LMI and the
- 23 representatives from Crown-Indigenous Relations and
- 24 Northern Affairs Canada had provided their technical
- 25 sessions, and so they had been sworn in to give their
- 26 evidence, but Environment and Climate Change Canada

- 1 didn't -- we ran out of time this afternoon, and so
- 2 they weren't able to present, so I'm going to swear
- 3 them in before they present their Community Session
- 4 tonight, so if I can have the witnesses state and spell
- 5 their name for the record, please.
- 6 MS. WALKER: Eva Walker, E-V-A W-A-L-K-E-R.
- 7 MS. WILSON: Anne Wilson, A-N-N-E
- 8 W-I-L-S-O-N.
- 9 MS. MEADOWS: Thank you. Teresa Meadows,
- 10 legal counsel for the Nunavut Water Board.
- 11 EVA WALKER, ANNE WILSON, Sworn
- 12 MS. MEADOWS: Thank you. Teresa Meadows,
- 13 legal counsel for the Nunavut Water Board.
- Do you have a different presentation than -- okay.
- 15 So I will file your presentation materials as the next
- 16 exhibit in this public hearing.
- 17 EXHIBIT 21 Hard Copy, PowerPoint
- Presentation, Lupin Mine Presentation to the
- 19 Nunavut Water Board by Environment and
- 20 Climate Change Canada (Community Session)
- 21 (English/Inuinnagtun)
- 22 MS. MEADOWS: Thank you, Mr. Chair. Those
- 23 are my procedural matters.
- 24 MS. AUTUT: Okay. Thank you, Teresa.
- 25 If you're ready to get on underway, please
- 26 proceed.

- 1 Presentation by Environment and Climate Change Canada
- 2 MS. WALKER: Eva Walker from Environment
- 3 and Climate Change Canada. I apologize for having my
- 4 back, sort of, to people.
- 5 So good evening, Mr. Chair, Board members, Elders,
- 6 and community members, Board Staff, and parties that
- 7 have joined us today.
- 8 So as I said, my name is Eva Walker. I'm a senior
- 9 environmental assessment coordinator with Environment
- 10 and Climate Change Canada, and with me today, I have
- 11 Anne Wilson, who is our lead water quality expert. In
- 12 this presentation, I'll summarize the department's
- 13 final written submission for the Lupin Mines water
- 14 licence amendment.
- So to start off, I'll go through Environment and
- 16 Climate Change Canada's mandate, briefly touch upon the
- 17 Acts and regulations and legislation, and then provide
- 18 a summary from our comments and technical and final
- 19 written submissions.
- 20 So under the Department of Environment Act, the
- 21 powers, duties, and functions of the Minister of
- 22 Environment and Climate Change extend to matters such
- 23 as the preservation and enhancement of quality of the
- 24 natural environmental, including water, air, and soil
- 25 quality, the coordination of relevant policies and
- 26 programs of the Government of Canada, renewable

- 1 resources, including migratory birds and not -- other
- 2 non-domestic flora and fauna, meteorology, and the
- 3 enforcement of rules and regulations.
- 4 Environment Canada -- Environment and Climate
- 5 Change Canada's mandate is governed by the Department
- 6 of the Environment Act, Canadian Environmental
- 7 Protection Act, the Pollution Prevention Provisions of
- 8 the Fisheries Act, the Migratory Birds Convention Act,
- 9 and the Species at Risk Act.
- 10 Environment and Climate Change Canada submitted
- 11 seven technical comments to the Nunavut Water Board.
- 12 Based on the responses from Lupin Mines Incorporated,
- 13 as well as discussions with Lupin Mines, Environment
- 14 and Climate Change Canada considers all of our
- 15 technical comments resolved.
- 16 I will briefly summarize them for you now. So
- 17 Environment and Climate Change Canada had technical
- 18 comments related to climate change modelling on how
- 19 well the tailings cover was working; assumptions around
- 20 perimeter dams, their stability, and likelihood for
- 21 seepage; duration and details of monitoring after
- 22 closure work is finished; the effectiveness of the
- 23 one-metre gravel cover over the tailings to prevent
- 24 acid -- acidic drainage and metal leaching from the
- 25 tailings; the handling and containment of waste rock
- 26 that may generate drainage and leach metals that might

- 1 seep into water bodies as well as details on monitoring
- 2 that will be done; and, finally, the disposal of
- 3 asbestos.
- 4 Environment and Climate Change Canada also had one
- 5 comment on the draft water licence that was submitted
- 6 to the Nunavut Water Board by Lupin Mines Incorporated.
- 7 This comment was about the change to the Metal and
- 8 Diamond Mining Effluent Regulations, and that concludes
- 9 my presentation.
- 10 Thank you.
- 11 MS. AUTUT: Thank you, Eva.
- 12 Are there any questions for Environment and
- 13 Climate Change Canada?
- Seeing no hands, thank you very much. At this
- 15 point, I'm going to hand the microphone back over to
- 16 the public hearing Chair, Lootie Toomasie, to close off
- 17 the Community Session portion of this public hearing,
- 18 so Lootie.
- 19 Closing Remarks
- 20 THE CHAIR: Thank you, Stephanie, and
- 21 everyone who attended tonight's Community Session here
- 22 in Kugluktuk. Your questions and comments about LMI's
- 23 renewal and amendment application were appreciated by
- 24 me and also by my panel members, Amanda Hanson Main and
- 25 Alex Ningark.
- As well, please let other members of the community

know that they are also welcome to attend the public
hearing tomorrow.
On behalf of the Nunavut Water Board, I would also
like to thank the Applicant and the Intervenors for
their presentation and answers to questions from
members of the public here tonight. Special thanks to
the Elders, youth, and other community members of
Kugluktuk for sharing their real stories and
information with the panel and participating and
contributing to a productive and respectful Community
Session.
The Community Session is now adjourned. I look
forward to seeing you all back here at 9 AM tomorrow
morning, so let us close the Community Session by
prayer. Let's stand.
Closing Prayer
PROCEEDINGS ADJOURNED UNTIL 9:00 AM, JANUARY 16, 2020

1	CERTIFICATE OF TRANSCRIPT:
2	
3	I, Julie Albert, certify that the foregoing pages
4	are a complete and accurate transcript of the
5	proceedings, taken down by me in shorthand and
6	transcribed from my shorthand notes to the best of my
7	skill and ability.
8	Dated at the City of Calgary, Province of Alberta,
9	this 26th day of January 2020.
10	
11	
12	
13	4 Macdouild
14	Julie Albert, CSR(A)
15	Official Court Reporter
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	

	201.0	1 1 (1) 200 22	1 211 10 22	217.10
A	201:8	ahead (1) 209:23	211:18,23	217:10
A-N-N-E (1)	Acts (1) 222:17	air (1) 222:24	apologize (1)	arena (1) 203:11
221:7	addition (1) 176:7	Albert (4) 172:26	222:3	Argentina (1)
abbreviations (1)	additional (1)	176:16 226:3,14	Applicant (8)	194:19
178:6	181:26	Alberta (1) 226:8	171:1 174:14	Arizona (1)
ability (1) 226:7	adequate (1)	Alex (2) 175:16	177:2,20 191:12	194:19
able (4) 176:14	218:16	224:25	191:15,18 225:4	arrive (2) 203:25
204:8 217:21	adequately (1)	allow (2) 173:8	Applicant's (1)	204:9
221:2	210:5	185:20	189:2	Article (1) 180:8
absolutely (2)	adjourned (2)	allowed (4)	application (22)	Arviat (1) 215:2
195:25 209:14	225:12,18	184:19 185:2,10	167:9 173:11,18	asbestos (2)
access (4) 198:16	ADJOURNME	185:17	174:1 175:19	186:16 224:3
204:18 205:6	220:9	allowing (1) 185:6	178:13 181:18	asbestos-materi
210:21	administered (1)	Amanda (2)	181:19 182:2	200:15
accessible (1)	214:3	175:15 224:24	183:12,13	asking (1) 173:19
189:23	administers (1)	amend (3) 173:13	185:25 187:11	aspects (1) 189:4
accurate (4)	213:25	212:16 214:8	187:12,15,23	asphalt (2) 199:1
174:23 176:15	administration	amended (4)	190:2,5 212:15	199:12
177:25 226:4	170:16 175:18	173:20 184:21	214:8 215:6	assessment (6)
accurately (1)	176:2	184:25 185:22	224:23	200:15,17
175:3	Administrator (amendment (8)	apply (1) 205:23	213:21 217:1,3
acid (1) 223:24	172:5	167:9 175:19	applying (4)	222:9
acid-generated	advice (1) 214:4	178:12 185:5,6	178:23 181:17	assessments (1)
218:2	advisor (2)	215:7 222:14	185:26 186:3	202:1
acid-generating	170:19 176:4	224:23	appreciate (3)	assigned (1)
186:18 198:24	aerosols (1) 201:5	amount (2) 200:1	178:7 190:6,7	184:23
acidic (1) 223:24	Affairs (13)	219:21	appreciated (1)	assist (4) 176:14
Ackerman (1)	168:13 172:3	analysis (1)	224:23	176:18 178:1
194:17	177:4,22 179:12	201:26	appropriate (2)	193:16
acknowledge (1)	187:19 188:20	and/or (1) 180:23	186:6 196:8	assistance (1)
209:8	211:11 212:6,10	animals (3)	approval (1)	178:7
acquired (7)	213:1,18 220:24	204:17,18 205:6	181:1	associated (2)
193:15,16 194:4	afternoon (2)	Anne (4) 168:14	approve (3)	173:22 217:5
198:4,5 200:11	218:8 221:1	221:7,11 222:11	183:11,13,17	Associates (1)
207:21	agencies (1) 177:3	answers (1) 225:5	approved (2)	171:10
acronyms (2)	agenda (3) 175:11	anticipates (1)	198:18 199:4	assume (1) 207:26
179:10,15	189:12 195:13	215:11	approximately	assumptions (1)
Act (12) 213:18	agendas (1) 175:7	antimony (1)	173:23 193:10	223:19
213:19,20,21,22	agility (1) 197:3	193:12	207:11 215:1	Atatahak (1)
213:23 222:20	ago (2) 203:14,15	anybody (4)	Arcadis (2) 172:7	205:21
223:6,7,8,8,9	agree (2) 183:16	195:26 198:7	212:11	attached (1)
actions (1) 196:15	209:10	207:1 208:11	Arctic (1) 213:22	174:26
active (1) 174:3	agreed (1) 186:6	anymore (1)	area (7) 180:11,24	attend (1) 225:1
activities (5)	agreement (4)	204:8	193:4 207:16	attended (2)
173:21 174:4	180:9 213:16,18	apologies (4)	216:4,19 218:1	214:11 224:21
180:23 186:21	213:19	180:6 204:5	areas (2) 201:2	attending (2)
100.23 100.21				
	I	I	l	l

	1	1	I	I
175:21 212:17	179:2	Blue (2) 207:21	223:16	180:19
audience (1)	bad (1) 204:5	207:23	bring (4) 186:25	capped (1) 199:1
210:8	barrier (1) 204:15	board (59) 167:3	187:5 203:21,24	capping (1)
audio (1) 176:12	base (1) 216:5	168:7 169:9	bringing (1)	198:26
Australia (7)	based (4) 180:21	170:6,11,15	200:6	capture (1)
192:14,26 193:5	194:1 219:23	173:10,15,18,19	brings (1) 189:13	215:12
193:14 194:6,7	223:12	174:14 175:11	brought (1)	care (16) 173:26
196:24	battery (1) 180:13	175:15 176:1,6	182:25	184:6,8 185:13
Australians (1)	Bay (1) 176:10	176:9,25 177:17	budget (1) 206:17	185:18 193:21
193:1	bear (1) 191:16	177:19,24	building (1) 201:3	195:15 197:17
authorizations (beginning (5)	178:16,19,21	buildings (4)	200:9,20 201:8
179:3 180:22	182:14 184:11	179:4,10 180:7	186:19 204:11	201:15 207:17
213:25	187:12 207:22	180:15 184:9	205:6 216:5	208:11 209:12
authorize (1)	215:3	187:25 189:14	built (1) 203:11	215:4
173:21	behalf (1) 225:3	190:10 191:1,10		care-and-maint
Autut (17) 170:13	behaved (1) 173:8	191:15 192:2,7	$\frac{\mathbf{C}}{\mathbf{C}(\mathbf{I})}$	185:12
175:24 176:21	believe (4) 196:21	192:7 194:7,17	C (1) 171:7	carefully (1)
176:24 191:6,24	197:14 201:13	195:14,26 197:8	Calgary (1) 226:8	193:4
208:9 209:6,23	202:8	199:10 202:5	call (5) 189:3	carried (1) 215:13
210:7 211:5,13	Belinda (4)	206:26 211:17	205:15,16 217:1	carry (1) 202:22
212:3 220:3,10	191:21,25 192:4	212:13 214:3,7	219:2	Cascada (1)
221:24 224:11	208:9	215:8 220:20	called (1) 193:12	198:10
available (6)	Ben (2) 176:1,8	221:10,13,19	Cambridge (1)	cash (1) 193:24
174:17,18 175:8	beneficial (1)	222:5,6 223:11	176:10	causes (1) 197:20
176:7 189:18	210:7	224:6 225:3	camp (1) 186:7	Cell (1) 200:23
190:23	benefit (3) 180:18	Board's (7) 175:1	campaign (1)	CEO (1) 194:4
avoid (1) 178:6	194:15 220:21	176:26 178:11	207:23	Certificate (2)
awkward (1)	best (3) 196:17	180:21 189:19	Canada (36)	168:18 226:1
179:18	200:6 226:6	191:8 214:5	168:13,16	certify (1) 226:3
	better (2) 196:10	Bocking (1)	169:10 172:3,13	cetera (1) 210:1
<u>B</u>	203:15	171:10	177:5,22 179:12	CFO (1) 194:7
B (4) 170:15	big (1) 181:13	bodies (1) 224:1	179:14 181:25	chair (16) 170:7
171:5 172:20	birds (2) 223:1,8	booth (1) 176:3	187:20,26	173:5,15,16
181:4	bit (22) 179:1,6	born (1) 203:9	188:16,18,20	174:9 176:24
back (23) 175:6	180:12 181:16	bottom (1) 198:19	190:4 194:22	177:23 179:26
176:2,5,11,17	182:8 183:3,23	bought (1) 207:9	206:26 212:6,10	192:2 208:5
180:1 182:7,13	184:4,7,16,17	brain (1) 200:11	213:2 220:13,17	211:18 220:19
183:3 184:7,9	185:17 186:17	branched (1)	220:24,26	221:22 222:5
184:18 186:9	187:6 189:26	203:15	221:20 222:1,3	224:16,20
190:19 196:9	199:20,22 202:8	break (2) 187:5	222:10,26 223:4	chairing (1)
200:8 202:14	203:9,15 210:11	220:5	223:10,14,17	175:13
206:6 208:5	210:20	brief (5) 174:11	224:4,13	chairperson (1)
220:6 222:4	Björkdal (2)	178:19 186:1	Canada's (2)	177:12
224:15 225:13	193:17 207:9	189:3 214:24	222:16 223:5	challenge (1)
backfilling (1)	blasting (1)	briefly (4) 178:26	Canadian (1)	218:16
198:25	203:26	179:7 222:16	223:6	change (26)
background (1)			Canadians (1)	
	•	•	•	•

172:13 177:5,22	219:20	194:19,22	communicate (2)	completeness (2)
179:13 177:3,22	cleaned (3)	co-manage (1)	195:23 202:15	187:16,18
188:17,17	203:16 218:20	213:14	communication	completing (1)
201:24 220:17	218:26	coffee (1) 175:4	176:2 206:11	202:26
220:26 221:20	cleaning (1) 201:1	cold (1) 193:7	communication	Complex (1)
222:1,3,10,16	cleanup (3) 203:8	cold-weather (1)	170:17 195:25	170:1
222:22 223:5,10	203:18,25	193:8	206:9,21	compliance (1)
223:14,17,18	clear (2) 198:20	collaborative (1)	communities (2)	209:13
224:4,7,13	205:13	197:8	195:5 197:19	concern (1)
changed (1) 195:6	cleared (1) 209:2	colleague (1)	community (36)	217:25
Channel (3)	clearly (1) 178:4	212:12	167:16 168:5,10	concerned (1)
174:19,19,20	climate (24)	combination (1)	169:5,10 170:4	209:1
check (4) 181:21	168:15 169:10	199:2	173:10 175:8	concerns (1)
187:16,18 211:2	172:13 177:5,22	come (8) 179:17	189:15 190:9,11	217:25
chemicals (1)	179:13 188:17	202:14 203:3,5	190:16 192:4,16	concluded (1)
208:26	188:17 201:24	206:3 208:13	196:21,22,25	207:20
Chief (1) 171:5	220:17,26	211:11 220:6	205:22 207:2	concludes (1)
Chile (4) 194:5,21	221:20 222:1,3	comes (1) 210:19	208:6,16 211:21	224:8
198:4,19	222:10,16,22	coming (3) 191:4	212:2,17 216:15	concrete (1)
Chilean (1) 199:4	223:4,10,14,17	203:23 210:25	220:21 221:3,20	203:13
Christine (2)	223:18 224:4,13	COMMENCE	222:6 224:17,21	condition (1)
191:19,24	close (6) 196:3	173:3	224:26 225:7,10	196:11
Christmas (1)	198:9,23 217:23	commencing (1)	225:12,14	conduct (2)
188:12	224:16 225:14	191:21	companies (1)	180:26 197:13
CIRNA (2)	closed (4) 194:10	comment (4)	178:22	conducted (4)
181:24 187:26	194:13 198:19	209:8,10 224:5	company (25)	173:17 178:9
CIRNAC (25)	199:15	224:7	192:8,11,19,25	200:13,16
177:5 179:13	closely (1) 206:19	comments (19)	193:18,23 194:4	conference (4)
188:23 190:3	closing (7) 168:17	177:9,14,17,26	194:12,12,26	182:17,20 188:7
195:26 197:7	194:20 198:15	182:11,25	195:2,11 196:5	189:3
206:26 213:2,14	199:12 202:16	187:17,22,25	196:20 197:2	confirm (2) 211:4
214:2 215:10,18	224:19 225:16	188:3 191:5	198:4,6 199:8,9	216:23
215:26 216:7,11	closure (26)	208:12 213:7,8	200:9 201:13	confirmation (1)
216:13,20	173:22 186:12	222:18 223:11	203:9,10 207:9	219:9
217:12,15 218:6	186:21 193:22	223:15,18	214:19	confirmed (1)
218:15,23	195:17 197:18	224:22	complete (8)	216:20
219:10,18	197:22 199:1,3	Commercial (1)	174:23 186:9,21	connected (1)
220:14	201:11,19 202:6	184:4	198:12 199:1	219:2
CIRNAC's (2)	202:23 206:21	commitment (3)	205:1 219:5	conservation (1)
217:25 219:6	209:20 210:3	215:24 216:22	226:4	180:16
City (1) 226:8	213:11 215:5,8	217:12	completed (3)	consider (5)
Claims (1) 213:19	215:11,25	commitments (4)	201:9 205:2	173:18 216:1,24
clarity (1) 201:10	217:19,22	182:25 188:8,14	212:20	219:10,26
clean (6) 188:25	218:10,11	214:14	completely (3)	consideration (1)
203:20 204:23	223:22	committed (1)	210:22 212:25	214:5
216:6 218:24	closures (2)	218:5	213:9	considers (1)
	•	•	•	•

	I	I	I	I
223:14	222:25	criteria (1)	201:21	detail (2) 184:17
constructing (1)	coordinator (2)	219:24	deal (2) 209:15	210:11
203:22	172:15 222:9	crowd (1) 190:12	216:14	detailed (2)
construction (4)	copies (1) 189:10	crown (6) 203:26	dealing (1) 193:2	215:12 216:8
171:18 202:22	copy (5) 169:4,8	213:15,26	December (5)	details (13) 179:8
215:18,19	211:20,26	218:23,25	188:15,18,18	183:9 186:2
consultant (2)	221:17	219:19	214:15,16	187:6 210:12
171:8 212:11	corporate (1)	Crown-Indigen	decided (2) 195:7	216:22 217:17
consultants (1)	197:26	168:12 172:3	217:22	217:20 218:4,5
206:22	Corporation (4)	177:4,21 179:12	decision (11)	218:17 223:21
Consulting (3)	169:5 184:19,24	183:15 187:19	175:1 182:20	224:1
171:12,14,16	212:1	188:20 211:10	183:11,12,16,18	determine (1)
containers (1)	cost (4) 213:13	212:5,9 213:1	188:7 193:20	219:4
192:16	218:14,14,17	213:17 220:23	196:3 198:23	developed (1)
containment (1)	Costerfield (1)	CSR(A) (2)	202:5	195:4
223:25	193:14	172:26 226:14	decision-makin	Development (1)
contaminate (2)	counsel (9)	cubic (10) 174:1,3	175:14	171:5
204:6,8	170:12 171:7	181:4,8 184:20	deconstructing	Dewar (1) 172:8
contaminated (2)	175:20 176:6	185:3,17,20	204:11	diamond (2)
186:15 204:3	191:20 211:17	186:7,9	define (1) 217:10	208:24 224:8
contamination (220:19 221:10	current (2) 185:9	Delighted (1)	Dicta (1) 176:17
215:17 217:4	221:13	188:22	192:2	died (1) 180:14
content (1) 201:3	couple (5) 185:23	currently (5)	demolishing (1)	diesel (1) 200:14
CONTENTS (1)	190:24 202:26	184:14 194:5	204:12	different (8)
168:1	204:25 220:12	218:18,21	demolition (2)	179:3,4,5
continued (4)	course (1) 179:24	219:21	186:18 205:2	181:23 184:10
200:20,22 201:9	court (5) 172:26	customers (1)	department (6)	185:17 208:24
202:2	176:16,17 178:2	197:23	172:10 213:17	221:14
continuous (1)	226:15		213:24 214:6	difficult (1) 193:1
206:11	cover (13) 200:25	<u>D</u>	222:20 223:5	difficulties (2)
contractor (3)	205:4,8 210:1	D (3) 170:19	department's (1)	176:13 180:13
195:18 202:7	210:17,18,20	171:8 172:10	222:12	direct (2) 177:18
206:20	211:3 216:21,22	dam (2) 202:1,2	deposit (3) 174:5	205:14
contributed (2)	219:14 223:19	dams (8) 204:25	180:23 184:20	directly (1) 178:4
175:17 213:5	223:23	209:11,12,17	Derek (5) 176:3	director (11)
contributing (1)	coverage (1)	215:20 217:26	178:14,18 191:6	170:13,14,15
225:10	201:25	219:15 223:20	191:10	172:7,8 174:13
control (2) 173:6	covered (2)	dated (2) 183:24	Derek's (1) 191:7	175:24,26 176:1
216:24	210:22,23	226:8	derive (1) 217:8	176:21 192:5
controlling (1)	covering (3)	day (4) 182:17	describe (1) 179:2	directors (3)
173:7	204:21 209:16	186:7 206:16	described (1)	194:8,17 202:5
Contwoyto (1)	216:6	226:9	187:16	disagree (1)
173:24	create (1) 196:18	day-to-day (1)	Description (2)	183:17
Convention (1)	creating (1)	206:14	168:3 169:2	discharge (1)
223:8	204:15	days (1) 183:2	design (3) 216:3	185:7
coordination (1)	crisis (1) 197:17	days' (1) 183:2	216:22 217:21	discharging (1)
		de-risk (2) 201:19		
	•	•	•	•

diagram (4) 192.19	duink (1) 220.6	215.12	170.12 191.24	222.0 224.11
discuss (4) 182:18	drink (1) 220:6	215:13	179:13 181:24	222:8 224:11
187:1 189:4	Duffy (1) 194:20	email (2) 190:18	187:26 188:16	evaluate (2) 217:3
214:20	dumps (1) 198:17	190:20	188:17 190:4	217:21
discussed (1)	duplicated (1)	emails (1) 190:26	196:9,15 198:21	evaluated (1)
186:4	190:25	emergency (1)	199:18 200:10	181:22
discussing (3)	duration (1)	185:6	204:6,16,24	evening (8) 173:9
181:10 186:1	223:21	employees (4)	206:25 217:4,23	192:1,3,6 207:3
216:7	dust (1) 192:17	196:20 197:1,14	218:3 220:13,17	212:7,18 222:5
discussion (4)	duties (1) 222:21	203:21	220:26 221:19	everybody (5)
168:11 188:22	Dwyer (2) 170:18	encapsulated (1)	222:1,2,9,15,20	189:5 196:12
211:12 217:14	176:4	215:23	222:22 223:4,4	200:3 206:17
discussions (3)	Dwyer's (1)	encourage (2)	223:6,10,13,17	210:13
183:21 212:21	190:18	177:16 190:13	224:4,12	everybody's (1)
223:13	E	ended (1) 185:16	environmental	196:7
dismantling (1)	E (1) 172:14	enforcement (1)	172:14 189:21	everything's (1)
198:16	E-V-A (1) 221:6	223:3	197:20 200:13	203:6
disposal (4)	` '	enforces (1)	200:16,22	evidence (2)
186:11,19 201:7	earlier (4) 187:16 201:18 209:20	213:25	201:12 206:23	219:25 220:26
224:2	220:22	engage (1) 206:26	207:26 215:14	exactly (1) 188:24
distributed (2)	early (1) 208:22	engineer (2)	216:9 219:9,26	example (1)
187:15 189:11	earpieces (1)	171:13 219:7	222:9,24 223:6	198:10
diversified (1)	174:18	engineered (1)	environmentall	Exchange (1)
197:23	ECCC (2) 177:6	217:18	199:9	192:19
division (1)	179:14	engineering (1)	equipment (5)	executive (4)
212:12	Ecological (2)	206:24	203:24 205:13	170:13 174:13
documents (1)	217:1,2	engineers (1)	205:13,14	175:24 176:21
187:13	effectiveness (1)	206:22	210:23	exhibit (8) 169:4
doing (10) 185:16	223:22	English (3) 169:6 174:20 212:2	erosion (1) 216:23	169:8 211:19,22
195:21,22	effects (2) 200:13		esker (8) 200:24	211:24,26
202:20 204:2,24	200:22	English/Inuinn 169:11 221:21	201:25 204:13	221:16,17
205:11 207:4 208:4 210:2	efficient (2) 196:9		204:13,19 205:8 209:17 210:18	EXHIBITS (1)
	202:7	enhancement (1)		169:1
dome (1) 216:3	effluent (2) 185:7	222:23 enjoy (1) 194:24	essentially (5) 183:17 188:9	existence (1) 193:14
dome-shaped (1)	224:8	" " '		
216:6 Dominic (1)	either (1) 183:19	ensure (4) 174:23 176:15 177:14	204:15,18 205:8	existing (2) 173:13 215:7
194:20	elaborate (1)	206:22	established (1) 180:8	
	210:8		estimate (7)	expect (2) 199:10 199:11
Donald (8) 170:19 176:3 178:17,18	Elder (2) 177:10	ensuring (1) 206:17	213:13 218:14	expected (1)
179:22,24 180:3	209:3		218:15,17,18,19	218:1
180:5	Elders (3) 209:4	entire (2) 205:5 218:25	218:13,17,18,19	expects (1) 199:11
draft (1) 224:5	222:5 225:7	entrance (1)	estimation (1)	expects (1) 199:11 experience (4)
drait (1) 224.3 drainage (2)	electronics (1)	176:5	219:18	176:13 194:18
223:24,26	201:4	environment (41)	et (1) 210:1	194:21 197:15
drilling (1)	Elgin (3) 193:17	168:15 169:10	Eva (6) 168:14	expert (2) 172:16
192:15	198:5 207:9	172:13 177:5,22	221:6,11 222:2	222:11
1,2.13	eliminate (1)	1/2.13 1//.3,22	221.0,11 222.2	222.11
		<u> </u>	<u> </u>	<u> </u>

	I	I	I	I
expertise (3)	201:11 202:21	182:19 183:5,10	G (2) 172:4,7	202:22,23,25,25
200:4 203:19	214:16 215:8,11	186:5,23 187:15	gathered (1)	204:3,3,6,7,10
214:5	217:19 218:9	213:16 217:14	189:20	204:21,24
expires (1) 184:16	222:13,18	footprint (1)	general (2)	205:19,19
exploration (2)	finally (6) 181:8	216:4	180:20 195:13	206:16 208:4
181:6 207:23	184:25 197:23	foregoing (1)	generate (1)	209:19 210:10
explore (1)	202:20 218:13	226:3	223:26	210:17,22 211:3
207:25	224:2	forgot (1) 211:18	generating (1)	211:14 212:23
exposed (3)	financial (1)	Fortunately (1)	196:6	216:8 219:4
216:16,18	184:22	193:2	geochemical (1)	220:4,16 221:2
219:15	finding (1) 196:26	forward (5)	215:21	224:15
extend (2) 184:25	fine (1) 207:5	200:19 201:22	geochemistry (1)	gold (14) 167:10
222:22	finer (1) 183:9	208:4,7 225:13	201:26	184:4,19,23
extra (2) 218:9,12	finish (2) 189:17	forward-lookin	geotechnical (3)	193:11 195:11
extract (1) 208:25	200:26	192:22	171:13 217:17	198:11 207:18
	finished (1)	found (1) 207:19	217:20	207:21 208:23
<u>F</u>	223:22	framework (1)	Gerd (1) 212:11	208:26,26
face (1) 203:3	finishing (1)	219:3	getting (5) 201:10	209:10 215:3
facilities (1) 185:8	210:2	freshwater (3)	204:4,17,17	Golder (1) 171:10
fact (2) 187:2	fire (1) 193:3	180:11 213:15	211:13	good (5) 173:9
199:16	fires (1) 193:2	213:26	giant (1) 203:18	192:1 200:26
fair (1) 186:17	first (17) 174:2	front (1) 179:18	give (7) 176:21	212:7 222:5
fairly (2) 205:12	179:1 181:1	frozen (2) 210:19	178:14 179:1,14	Gordon (1)
210:18	183:13 184:12	210:24	214:24 220:5,25	203:17
fall (1) 181:7	184:18 193:13	FTP (2) 189:19,23	gives (1) 207:14	gotten (1) 183:9
family (1) 194:6	194:14 195:11	fuel-tank (1)	go (23) 178:6,23	governed (1)
far (5) 191:2	195:18 203:9	201:1	178:26 179:4	223:5
193:6,7 206:4	209:18 213:8,10	fuelling (1)	182:7 183:11	government (5)
218:15	215:16 219:12	205:17	184:16 186:2	180:8 198:7
farm (1) 201:2	219:14	fulfilled (1)	189:24 192:18	199:4 206:25
fauna (1) 223:2	Fisheries (1)	188:14	195:14,16	222:26
feedback (1)	223:8	full (2) 206:21	199:21 200:8,19	grab (1) 220:6
190:11	floor (2) 174:19	215:12	202:6,24 205:24	gravel (1) 223:23
feel (1) 217:16	212:3	fully (1) 194:22	206:8,21 209:23	great (5) 200:25
feels (1) 190:16	flora (1) 223:2	functions (1)	211:14 222:15	207:3 209:12,15
field (1) 200:5	focus (2) 196:17	222:21	Godwin (5)	211:5
file (4) 173:11	198:6	funds (4) 219:1,5	211:13 212:3,8	grew (1) 194:2
175:2,15 221:15	focuses (1) 178:20	219:11,23	220:3,14	group (1) 194:3
filed (2) 173:11	folks (1) 210:8	Furioso (1)	goes (1) 200:4	groups (4) 180:26
197:21	follow (2) 175:9	198:22	going (44) 182:7	195:4 200:21
fill (2) 175:2	195:24	furniture (1)	184:9 186:13	206:25
205:23	followed (3) 174:3	201:4	188:24 191:14	guess (6) 182:22
filled (1) 206:1	177:1 181:19	further (1) 183:20	194:11,23	183:18 184:11
final (16) 173:22	following (12)	future (3) 192:20	195:24 199:22	185:23 191:4
186:12 187:13 188:16 189:12	177:2 180:22	192:21 215:15	201:22,22 202:9	203:14
193:22 197:21	181:26 182:16	G	202:10,11,19,20	guys (1) 206:6
173.22 17/.21				

	<u> </u>	I	I	l
H	211:22,25	Hydrogeologist	individuals (3)	192:25 194:3
half (1) 188:12	212:15,18	171:15	175:20 195:2	internet (1)
hand (4) 177:12	221:16 224:16	hydrology (1)	200:2	189:22
202:11 211:15	224:17 225:2	202:1	industrial (1)	interpretation (1)
224:15	heavily (2) 203:17		186:8	174:17
handing (1)	204:2	I	info (1) 179:2	interpreter (1)
191:22	held (3) 188:4,10	ice (2) 202:21	information (17)	176:9
handling (1)	189:3	203:23	177:25 181:22	interpreters (4)
223:25	Helen (2) 205:18	idea (2) 199:20	182:1,21,22	176:7 178:1,5
hands (2) 191:11	205:20	217:18	183:8 188:9,13	179:23
224:14	hello (2) 192:4	ideas (1) 207:25	189:20,21,25	INTERPRETE
Hanson (3) 170:8	208:18	identified (1)	206:18 214:10	172:19
175:15 224:24	help (3) 175:6	216:13	218:9,12 219:17	interpreting (1)
happen (2)	190:8 202:7	imagine (1) 201:4	225:9	176:3
192:21 215:17	helped (2) 190:4	impact (3) 197:20	infrastructure (5)	intervening (3)
happening (1)	201:19	201:24 216:9	193:3 198:17	181:24 188:1
193:5	helping (1)	important (5)	199:15 205:7	190:7
happy (3) 206:1,2	202:22	177:24 202:3,16	215:20	Intervenors (5)
207:19	helps (1) 201:21	206:10 208:25	initial (2) 181:20	172:1 174:15
hard (6) 169:4,8	Hi (2) 202:17	in-house (2) 176:8	187:18	177:21 211:9
175:25 211:19	203:1	203:19	initially (2)	225:4
211:26 221:17	high (3) 197:15	include (1) 201:23	181:18 187:10	Intervenors' (1)
harm (1) 197:21	205:11 206:4	included (3)	initiative (1)	188:3
hazardous (4)	historical (1)	177:15 198:15	198:13	intervention (1)
186:16 200:18	217:5	218:9	innovation (1)	198:7
201:5,6	history (3) 184:4	including (7)	196:16	interventions (1)
heads-up (1)	187:6 192:11	186:16 194:9	institute (1) 180:7	182:10
179:15	Hohnstein (1)	196:26 198:26	instrumental (1)	introduce (2)
headsets (1)	171:8	200:14 222:24	199:24	175:11,20
176:14	hold (7) 182:11	223:1	instruments (2)	introductory (1)
health (3) 217:1,2	182:16 183:5	incomplete (1)	210:24 211:2	174:12
217:4	188:23 218:18	187:11	insufficient (1)	Inuinnaqtun (3)
hear (5) 177:26	218:19,21	Incorporated (1	219:17	172:20,23
179:25 190:15	holding (1)	168:8,9 171:3,9	Integrity (1)	174:20
191:5 210:13	219:21	173:12 177:2,20	195:21	investment (1)
heard (4) 178:8	holds (3) 180:9	179:9,11 181:12	intend (2) 195:16	197:25
192:6 209:20	188:23 197:18	184:24 191:26	205:25	investors (2)
216:15	hosted (1) 189:14	208:16 212:15	intention (2)	196:19 199:11
hearing (30)	housekeeping (1)	223:12 224:6	206:5 210:18	invite (1) 177:7
173:10,16,16,17	174:12	indicate (1)	intentions (1)	invited (1) 187:23
174:11,17,25	human (3) 217:1	211:18	185:14	involved (3) 191:2
175:7 177:24	217:2,3	indicated (2)	interested (1)	203:12,18
178:1,9,9 183:1	hundred (1)	215:22 216:3	214:4	Iqaluit (2) 212:10
183:5,10 188:10	199:14	indicating (1)	interesting (1)	212:12
189:5,10,12,14	hydrocarbon (1)	217:12	207:24	issuance (1)
189:17 190:10	186:15	indirect (2) 205:15,16	international (2)	217:15
		203.13,10		
<u> </u>				

	1	I	I	I
issue (20) 173:19	171:4,10,17	187:1 189:6,20	191:3	201:12 218:24
179:4 180:22,25	202:2	190:16 194:15	late (1) 207:20	219:10,20,26
183:12 198:24	Kaiyogana (2)	200:5,6 203:3,5	latest (1) 212:20	licence (28)
212:24 215:16	208:18,19	206:5 207:24	Law (1) 176:6	167:10 173:14
216:1,2,11,12	Karén (2) 175:24	209:26 211:3	laws (1) 213:16	173:20 178:23
216:13,25,26	182:7	214:23,24	Lawson (1) 171:7	178:25 181:2,5
217:16,17	Karyn (12)	215:18,20	layer (1) 199:1	181:9,14 183:20
218:13 219:17	191:17 199:24	216:14,16 225:1	layers (2) 198:26	184:12,15,26
219:18	200:2,11 202:12	knows (2) 202:13	199:12	185:1,8,9,16,22
issued (10) 179:6	202:12,12,17	205:22	leach (1) 223:26	186:4 195:17
184:10,18,18	206:7,15 209:23	Koana (1) 220:2	leaching (1)	207:22 212:16
185:1,5,10	209:24	Kogvik (4) 170:15	223:24	213:6 214:9
186:26 187:22	keep (4) 173:8	172:20 176:1,8	lead (2) 172:16	215:8 217:15
188:6	179:15 215:25	Kohlenberg (1)	222:11	222:14 224:5
issues (6) 183:11	218:1	172:10	leadership (1)	licenced (1)
193:8 212:22	keeping (1)	Kowbel (3) 171:7	206:13	185:10
214:20,20	206:16	191:19,19	leading (1) 199:25	licences (4) 179:5
219:12	Kenny (8) 202:3,8	Kugluktuk (15)	learn (2) 193:18	180:25 184:10
item (1) 195:12	202:13,24 203:4	167:25 168:10	193:19	214:2
	206:7 210:15,16	170:1,2 173:24	learning (1)	licencing (5)
J	kept (1) 176:16	182:15 183:26	200:10	170:18 176:4
J (3) 171:15	key (2) 195:25	188:5 192:3	leave (2) 179:7	179:5 216:24
172:23,26	206:16	193:7 212:17	186:14	218:6
January (11)	Kharatyan (3)	214:12 215:2	left (2) 175:16	lifecycle (1)
167:26 168:5	170:14 175:25	224:22 225:8	186:13	194:10
170:4 189:1,2,8	180:2		legal (11) 170:12	likelihood (1)
189:8,9,11	KIA (1) 207:15	L	171:7 175:19	223:20
225:18 226:9	kids (2) 173:6,7	L (1) 170:7	176:6,6 191:19	list (2) 190:26
job (2) 205:12,21	kilograms (1)	La (1) 198:10	211:14,17	205:13
jobs (2) 205:22,23	201:6	Labatte (6) 171:5	220:19 221:10	listed (1) 192:19
Joe (1) 176:9	kilometres (5)	191:21 192:1,4	221:13	listening (1)
joined (2) 212:10	173:24 183:25	206:7 209:9	legibly (1) 175:2	195:23
222:7	207:11 215:1,2	Lake (2) 173:24	legislation (1)	little (14) 179:6
joining (1) 175:12	kind (8) 182:18	203:17	222:17	180:12 181:16
Jones (2) 194:18	183:10 185:13	land (5) 172:5	Let's (2) 174:7	183:23 184:6,16
194:21	186:4,13 189:5	201:2 213:15,19	225:15	184:17 185:17
Julie (4) 176:16	203:7 209:4	213:26	level (4) 205:11	187:5 202:8
176:18 226:3,14	kinds (1) 201:3	landfill (1) 204:12	206:4 217:9,10	203:9,15 210:9
July (1) 187:10	Kinross (2)	lands (2) 212:12	levels (2) 201:26	210:20
June (6) 182:14	184:19,23	213:22	219:15	live (1) 197:14
183:4 188:3,6	Kitchen (1)	Language (2)	Lewis (5) 171:4	living (2) 176:10
214:12,13	205:16	172:20,23	202:12,17,17	194:26
Justice (1) 172:10	Kitikmeot (2)	large (3) 181:10	209:24	LMI (27) 173:12
justify (1) 218:17	207:16 215:1	190:12 197:23	liabilities (2)	173:18 179:8,11
	knew (1) 189:6	largest (1) 194:14	207:26 215:14	184:24 187:10
<u>K</u>	know (21) 175:22	lasting (1) 204:26	liability (5)	188:8,12,22
K (5) 170:14	` ´	lastly (2) 190:26		
	<u> </u>	<u> </u>	l	<u> </u>

	ı	<u> </u>		
201:19 202:10	Lundell (1) 171:7	manage (3)	179:21,23,25	174:4 181:4,8
202:17 209:24	Lupin (54) 167:10	209:13,16	211:16,17	184:20 185:3,18
214:19,19	168:8,9 169:9	213:15	220:18,19 221:9	185:20 186:7,10
215:22,23 216:3	171:3,8 173:11	managed (3)	221:9,12,12,22	mic (3) 180:4
216:7,14,20	173:23 177:2,20	186:14 216:17	means (5) 189:19	208:13 211:15
217:12 218:4,21	178:25 179:9,11	216:19	189:24 195:7,8	microphone (11)
219:1,4 220:22	181:12 183:22	management (7)	195:9	174:13 176:20
LMI's (5) 187:21	184:1,24 185:2	172:8 180:10	meant (1) 217:22	177:9,14,18
188:2,23 216:11	186:2 189:21	210:9 216:19	medium-sized (1)	178:3,5,11
224:22	191:12,20,26	217:11 218:1	181:5	179:26 190:22
local (1) 198:17	192:5,12 193:9	219:15	meet (1) 195:13	224:15
located (4) 174:18	193:19 195:17	manager (6)	meeting (13)	midnight (1)
174:22 175:4	196:1,3 198:2	170:18 171:4,11	182:12,13,16,23	212:22
207:11	199:19 201:8	172:4 176:4	186:5 188:4	migratory (2)
location (1)	206:13,15 208:4	212:8	191:8 195:14	223:1,8
183:24	208:11,16,20,21	managers (1)	197:5 201:18	milestone (1)
long (3) 207:15	209:7,14 212:15	195:13	206:2 214:12,15	199:26
216:10 217:23	212:21 214:8,24	Mandalay (8)	meetings (1)	mill-site (1) 216:4
long-term (2)	214:26 215:3	169:5 171:6	214:19	million (6) 184:20
217:26 219:14	217:18 221:18	192:4,10 193:13	member (3) 170:9	185:2 193:24
longer (1) 204:26	222:13 223:12	194:9 211:20	199:25 216:15	218:21,22,26
look (10) 179:1	223:13 224:6	212:1	members (15)	mind (2) 191:16
189:25,25	Lupin's (1) 215:6	mandate (4)	175:11,14,15,17	197:10
196:11,16		180:21 213:14	177:13 191:22	mindful (1) 178:5
197:12 202:10	M	222:16 223:5	192:3 196:22	mine (48) 167:10
208:6 210:10	magnitude (1)	manner (2)	220:21 222:5,6	169:9 173:23,25
225:12	202:16	178:10 180:18	224:24,26 225:6	178:25 181:13
looking (6)	main (6) 170:8	March (4) 187:17	225:7	184:1 185:21
180:26 182:5	175:15 204:9	187:21,22	memos (1) 218:5	186:12 189:21
190:15 195:22	209:1 217:25	214:10	mention (3)	193:5,13,14,17
205:22 210:4	224:24	marked (1)	185:11 194:15	194:4,18,20
looks (3) 198:20	maintenance (15)	211:19	213:5	197:16 198:10
199:17 206:12	173:26 184:6,8	marking (1)	mentioned (5)	198:11,12,13,22
Lootie (3) 173:14	185:14,19	211:22	178:20 184:3	198:23 199:3,5
224:16,18	193:21 195:15	material (2)	190:3 201:18	199:19 200:7,12
lot (10) 179:15	197:18 200:9,20	200:24 215:18	219:24	201:15 203:16
181:6 193:2,3,8	201:8,15 205:17	materials (5)	mentioning (1)	203:17,18
200:10 201:10	207:17 215:4	186:16 201:5,6	213:3	204:10 205:2,5
201:20 210:11	maintenances (1)	203:24 221:15	met (2) 185:8	207:10 208:24
214:21	205:17	matters (4)	202:12	209:20 214:24
lots (3) 187:1	major (6) 172:5	182:18 195:19	metal (3) 193:12	214:25,26 215:3
205:26,26	181:11 182:5,5	221:23 222:22	223:24 224:7	215:6,9,11
loud (1) 179:20	213:8 219:12	McKinley (1)	metals (1) 223:26	217:19 221:18
love (1) 191:5	majority (1)	171:15	meteorology (1)	mines (42) 168:8
lowered (1)	188:13	Meadows (15)	223:2	168:9 171:3,8
219:16	making (2) 178:8	170:12 176:5,5	metres (10) 174:2	173:11 177:2,20
	210:4			
	•	•	•	•

•	month (1) 188:11 Montreal (2)	Norbert (2)	223:11 224:6	one-metre (1)
183:22 184:24		176 10 14	225.2	
40 40	(/	176:12,14	225:3	223:23
185:2 186:2	194:3 207:13	north (7) 193:6,7	Nunavut's (1)	open (3) 198:25
	morning (6)	203:10,11,13,14	213:26	203:26 204:1
192:5,12,13	174:10 177:24	207:11	NWB (4) 175:20	open-pit/under
193:9,11,25	189:15,16	Northern (13)	179:11 183:11	199:3
194:13 195:18	210:14 225:14	168:13 172:3	189:11	Opening (3)
	move (5) 190:4	177:4,21 179:12	NWB's (1) 175:18	168:6 173:4
203:20 206:15	191:11 193:21	187:19 188:20	NWT (1) 203:16	174:8
208:4,11,16,21	211:8 220:13	211:10 212:5,9		operate (3) 193:5
	moved (1) 194:6	213:1,17 220:24	0	196:24 197:19
-	moving (3) 180:6	note (2) 174:16	objective (2)	operated (6)
222:13 223:12	197:3 201:11	209:25	196:7 217:2	173:25 198:11
223:13 224:6		notes (1) 226:6	objectives (1)	198:24 199:8
Mines' (1) 206:13	<u>N</u>	notice (4) 182:2	180:15	215:3 217:6
()	N (2) 172:5 173:1	183:1,2 187:23	obligated (1)	operating (6)
197:20	Nahanni (7)	November (1)	192:20	193:25 194:5
minimum (1)	171:17 202:22	188:11	obtain (2) 190:11	197:16 198:6
183:2	203:5,12 205:18	number (7)	208:3	205:13 206:15
mining (12) 172:7	206:20 210:15	173:14 184:10	obviously (4)	operation (1)
178:22 181:6,7	name (12) 173:14	188:7 193:20	181:13 185:16	193:19
184:4,21 185:3	175:21,23,26	195:12 197:2	186:12 189:16	operational (1)
192:25 196:5	176:19 178:3,18	210:4	occurring (1)	181:12
208:23,24 224:8	205:19 208:18	numerous (1)	180:24	operations (1)
Minister (2)	212:8 221:5	200:14	office (1) 213:1	217:5
183:15 222:21	222:8	Nunavut (55)	Officer (1) 171:5	operators (1)
minutes (2) 220:7	national (1)	167:3,25 168:7	Official (2)	205:14
220:12	180:17	169:9 170:2,6	172:26 226:15	opportunities (1)
Miranda (1)	natural (1)	170:11 173:10	oh (5) 179:24	205:12
205:20	222:24	173:15,18,19	180:2,5 182:7	opportunity (5)
modelling (1)	need (4) 173:6,7	174:14 176:26	183:24	207:3 209:7
223:18	201:25 215:20	177:19 178:16	okay (17) 173:9	210:21 212:14
	needed (4) 187:2	178:18 179:10	179:22 180:3,6	220:5
money (4) 188:25	199:16 200:12	180:7,8,11,15	180:14 185:24	opposed (1)
198:9 218:19	202:7	180:17,19,24,26	187:4 191:6,11	204:19
	never (3) 175:26	187:25 189:13	206:6 208:9	optimum (1)
monitor (1)	185:16 199:8	189:18 192:2,6	211:8 212:3	180:18
	new (1) 201:17	192:7 194:16	220:7,16 221:14	option (1) 190:22
	nice (1) 190:12	195:26 197:8	221:24	options (1) 201:14
185:5 186:10,23	nine (1) 203:17	206:26 207:16	Okonkwo (3)	order (2) 217:7,7
	Ningark (3) 170:9	211:17 212:13	172:4 212:7,8	originally (2)
200:14,22	175:16 224:25	213:15,18,18,19	old (4) 201:25	176:10 186:4
	Noah (3) 172:5	213:20,21 214:3	204:15,19 205:7	Otokiak (2)
211:3 215:25,26	212:11,11	214:7,26 215:7	on-site (1) 207:23	172:23 176:9
	Noise (1) 192:17	220:20 221:10	once (4) 174:9	ounces (1) 193:11
217.15 225.21	non-domestic (1)	221:13,19	186:8 203:25	outline (1) 213:2
	223:2		204:23	(1) 213.2

outlined (1) 188:7	performance (4)	plan (5) 197:22	postings (1)	nrecenting (1)
oversee (1) 194:8	196:16,18	215:11 217:13	205:21	presenting (1) 191:17
overtop (1) 205:5	197:16 210:1	218:10,11	potential (3)	presently (1)
overview (3)	performing (3)	planned (1) 187:3	215:16 217:3,9	215:5
176:22 178:14	187:3 207:17	planning (2)	potentially (2)	preservation (1)
214:25	210:5	213:12,21	185:15 186:17	222:23
owners (1) 198:25	perimeter (1)	please (15) 174:6	PowerPoint (5)	pretty (3) 179:20
	223:20	174:16 175:2,6	169:4,8 211:20	185:4 194:3
P	period (1) 182:3	175:9,21 176:19	211:26 221:17	prevent (1)
page (5) 168:3	permafrost (3)	178:2,5,14	powers (2) 180:10	223:23
169:2 189:6	201:24 210:19	206:8 211:11	222:21	Prevention (2)
196:12 209:18	215:23	221:5,25 224:26	prayer (5) 174:7,7	213:23 223:7
pages (1) 226:3	permanent (2)	PM (1) 173:3	174:8 225:15,16	Principal (1)
paints (1) 201:5	174:5 197:21	point (14) 178:13	pre-hearing (3)	171:10
panel (6) 170:9	permits (1)	182:23 183:19	182:17,20 188:6	prior (2) 176:19
175:13,14 177:8	180:25	183:24 187:1	prefer (2) 190:21	198:24
224:24 225:9	permitted (1)	188:21 191:13	207:5	priority (1)
parks (1) 180:17	184:14	199:25 200:17	preliminary (1)	209:15
part (6) 174:24,25	person (2) 188:4	201:10 202:11	181:21	proactively (2)
192:26 196:5	197:4	208:10 215:10	presence (2)	198:9 199:6
198:2 219:11	personally (1)	224:15	196:22 197:19	probably (1)
participated (2)	197:1	Poitras (3) 173:1	present (5)	208:21
174:24 214:6	perspective (2)	176:12 180:4	175:19 208:1	procedural (3)
participates (1)	206:24,24	policies (1)	212:23 221:2,3	182:18 187:6
214:2	Peter (2) 194:18	222:25	presentation (41)	221:23
participating (1) 225:9	194:21	Pollution (2)	168:7,8,12,15	procedures (1)
	petroleum (1)	213:23 223:7	169:4,8,9	178:21
participation (3) 178:7 190:3,6	186:15	ponds (1) 204:14	175:10 176:26	proceed (3) 174:6
particular (1)	phase (2) 185:12	portal (2) 199:2	177:1,7 178:15	175:10 221:26
180:19	200:16	199:13	178:16,20,24	proceeding (1) 176:15
parties (10)	philosophy (1) 195:19	portfolio (1) 209:11	179:1 191:12,13 191:22,26	
176:18 181:24	photo (1) 198:20		191:22,26	proceedings (7) 170:1 173:3
182:9 187:23	photo (1) 198:20 photograph (1)	portion (1) 224:17	210:12,13	170:1173:3
188:1 189:11	183:23	position (4)	210:12,13	211:15 225:18
190:7 191:15	pick (1) 175:9	200:26 218:23	211.20 212.1,3	226:5
214:4 222:6	picture (3) 192:13	219:6,19	213:3 214:11	process (23)
parts (1) 200:7	199:17 214:22	positions (1)	220:15 221:14	179:5 181:16
pass (1) 208:5	pictures (2)	205:26	221:15,18,18	187:8 190:2,5
people (12)	196:11 199:7	positive (1)	222:1,12 224:9	191:2,8,10
175:22 180:25	PIDO (1) 176:13	201:13	225:5	192:7,14 193:16
181:3 195:1,4	pillar (2) 203:26	possible (1)	presentations (3)	193:21 194:23
195:20 196:26	203:26	215:13	177:3 189:10	195:15 196:13
200:5,6 205:25	pit (2) 198:25,26	post-closure (4)	211:9	197:5 199:17
220:5 222:4	placement (1)	174:4 186:22	presented (1)	201:20 203:8
percent (1)	205:21	215:24 217:13	211:21	210:10 213:6
199:14				
	l	I	I	I

216:24 218:6	186:14 197:6	189:23,24 190:9	ran (1) 221:1	Pagragian (1)
	203:20	190:16 191:9	ran (1) 221:1 read (1) 197:12	Recreation (1) 170:1
processes (1) 214:2		190:18 191:9	read (1) 197:12 ready (2) 191:25	red (2) 176:18
	property (2) 207:22 208:1		221:25	183:14
produce (2) 193:10 195:11		208:11 211:7,22 211:25 212:14	real (3) 181:10	
	Proponent (4)		` '	reduce (1) 216:9
produced (1)	181:20 182:1,24	212:17 221:16	203:3 225:8	reduced (1)
195:12	182:24	224:16,17 225:1	realize (3) 197:24	219:10
production (5)	Proponents (4)	225:6	203:1 205:10	reducing (2)
184:5,7 185:15	178:22 179:4	pulling (2) 204:13	realized (1)	201:11 216:18
185:21 208:20	181:17 183:7	216:4	206:10	reduction (2)
productive (2)	proposed (1)	purposely (1)	really (12) 182:4	186:9 219:25
178:10 225:10	217:21	195:6	183:8 185:13,26	refer (2) 173:12
profiling (1)	proposes (1)	put (7) 190:21	187:24 190:10	212:26
198:17	215:8	192:23 196:9	190:15 194:24	reference (1)
program (1)	Protection (1)	204:7,23 205:4	196:2 199:26	184:2
200:22	223:7	210:24	200:26 206:10	refreshments (1)
programs (1)	protective (1)	puts (1) 200:25	reason (1) 204:1	175:7
222:26	217:23	putting (2) 204:12	receive (3) 181:18	refund (1) 220:1
progressed (1)	provide (12)	204:14	183:19 190:3	regarding (2)
178:13	177:8 178:19	Q	received (8)	212:15 214:8
progressive (3)	180:16 182:1,2		187:17,21,25	region (2) 207:25
200:23 219:22	182:19 183:1,7	quality (5) 172:16	188:2,15,19	215:1
219:22	188:9 190:17	210:26 222:11	189:2,9	Registry (1)
project (26) 171:4	216:22 222:17	222:23,25	reclaimed (2)	189:23
171:11 173:23	provided (9)	question (1) 218:8	218:20,26	regular (1)
178:26 179:7,8	183:3,3 187:11	questions (24)	reclamation (13)	206:20
180:26 181:13	188:13 190:8	168:9 177:8,17	173:22 174:3	regulate (1)
181:18 182:5	218:4,15,17	177:19,26	186:21,23	180:22
183:9,22,24	220:24	190:14,17 191:4	197:22 200:23	regulation (1)
184:1,3,11	provides (2)	191:9,14,14	200:24 213:11	180:10
186:2 190:17	180:18 182:24	206:1,3 207:4	213:12 215:9	regulations (5)
203:22 207:2,8	providing (2)	208:6,10,12,16	218:13,14	213:20,22
207:17,18,20	214:4 218:5	211:6 220:4,14	219:22	222:17 223:3
208:12 213:21	Province (1)	224:12,22 225:5	recognize (2)	224:8
projects (12)	226:8	quick (2) 203:3	190:6 202:18	regulator (1)
171:17 172:6	provision (1)	204:5	recognized (2)	198:19
181:2,5,7,11	217:13	quickly (1) 185:4	177:12 199:8	regulatory (1)
192:26 194:9	Provisions (1)	quiet (1) 173:8	recognizing (1)	213:25
198:1,5,8	223:7	quite (7) 181:10	210:11	rehabilitate (1)
206:14	public (37)	181:14 183:3	recommending	198:14
pronounce (1)	173:10,16,17	184:3 186:1	218:25	rehabilitation (1)
175:23	174:11,25,25	189:26 190:12	record (9) 174:23	198:12
pronouncing (1)	177:23,26 180:7	R	175:1 176:15	reinforce (1)
175:25	183:1,5,10		177:10,15,25	196:23
properly (5)	188:10 189:5,10	R (1) 170:18	208:14 211:24	reinforcing (1)
175:23 181:23	189:12,14,17,22	raise (1) 177:12	221:5	204:25
		raised (1) 203:10		
	<u> </u>	1	<u> </u>	I

		I	ı	I
related (6) 185:5	reporter (4)	response (5)	196:4,8 201:12	second (4) 183:14
185:23 191:9	172:26 176:16	187:21 188:3	202:4 206:3,17	184:13 198:23
213:26 220:14	178:2 226:15	189:2 216:11	216:16 220:10	213:11
223:18	Reporting (1)	218:7	Rights (1) 213:20	security (13)
Relations (14)	176:17	responses (1)	risk (7) 202:1	184:22 185:23
168:12 172:3	representations	223:12	217:1,2,3,9,11	188:22,25 189:4
177:4,21 179:12	182:10	responsibilities	223:9	198:13 199:5
183:15 187:19	representatives	180:9	road (3) 202:21	213:13 218:14
188:20 211:10	208:17 220:22	responsibility (5)	203:23 205:17	218:18,19 219:3
212:5,9 213:1	220:23	196:2,14,14	robust (1) 204:26	219:18
213:17 220:23	request (1)	213:4 218:24	rock (12) 186:17	see (11) 181:15
relative (1)	214:10	responsible (6)	198:24 204:1,3	190:12 192:15
208:12	requested (2)	175:14 194:12	204:5,6 213:11	193:6 199:11,16
release (3) 219:1	182:1 201:17	194:20 196:5	215:17,19,23	200:2,17 201:14
219:3,22	requesting (1)	199:9 206:14	216:2 223:25	203:2,3
releasing (2)	195:17	responsive (2)	rocks (1) 216:5	seeing (3) 191:11
219:5,11	requests (1) 174:1	197:4,6	role (1) 194:8	224:14 225:13
relevant (2)	require (1)	restart (1) 201:14	roles (1) 213:4	seen (1) 191:7
207:14 222:25	217:11	restated (1)	room (1) 179:18	seep (1) 224:1
relocated (1)	required (3)	215:24	rules (1) 223:3	seepage (2) 216:3
199:14	192:22 200:21	retain (2) 218:25	running (1)	223:21
remarks (5) 168:6	207:2	219:20	185:19	send (4) 181:20
168:17 173:4	requirements (1)	return (1) 197:24	Ruptash (6)	181:23 182:19
174:12 224:19	185:8	returning (1)	171:17 202:24	190:20
remediation (4)	residents (1)	188:24	203:1,4 210:15	senior (4) 171:13
186:8 202:2	180:18	revenue (1) 196:6	210:16	171:15 172:14
203:16 217:11	resolved (11)	review (9) 175:18		222:8
remind (1) 174:21	212:24,25 213:9	181:21 182:3,5	S	sense (2) 187:7
remove (2)	213:10 214:21	182:26 187:18	S (3) 170:13	207:14
200:18 201:3	216:1,12,25	187:24 213:5,7	171:11 172:8	separate (1)
removed (2)	217:16 219:13	reviewed (1)	safely (3) 195:12	188:19
199:15 201:7	223:15	214:13	195:20 197:14	services (3)
removing (1)	Resource (1)	revising (1)	safety (3) 195:10	170:14 176:1
198:16	172:8	218:11	195:11,18	205:16
renew (2) 173:13	resources (11)	Richard (4) 176:4	sampling (2)	session (21)
214:8	169:5 171:6,12	190:18 208:18	200:15 201:2	167:16 168:5
renewable (1)	172:4 192:5,10	209:6	satisfaction (1)	169:5,11 170:4
222:26	212:1,9 213:15	Richard's (1)	197:15	173:10 174:6
renewal (6) 167:9	214:1 223:1	190:18	satisfied (6)	175:8 176:22,25
178:13 186:3,26	respect (2) 188:8	right (23) 175:16	215:26 216:11	189:15 190:9
215:6 224:23	209:14	179:19 181:10	216:20 217:7,15	211:21 212:2
renewed (1)	respectful (2)	181:18 182:4	218:6	221:3,20 224:17
173:19	178:10 225:10	184:2 185:26	says (1) 189:8	224:21 225:11
repairs (1) 202:2	respond (1) 209:7	186:19,22,23	schedule (1)	225:12,14
report (3) 175:1	responded (2)	189:16 190:9	216:8	sessions (1)
182:20 188:7	212:23 217:12	191:11,24 193:1	scope (1) 185:25	220:25
			seats (1) 220:11	
	1	'	·	1

			I	I
set (3) 197:11,23	186:13,17,25	snacks (1) 175:4	210:12	stay (1) 210:19
211:14	188:26 189:19	snow's (1) 204:17	specifics (1) 182:6	step (2) 177:9
Settlement (3)	189:21,23	soil (3) 201:1	spell (1) 221:4	183:13
180:11,24	198:12 200:16	216:6 222:24	spent (1) 198:9	Stephanie (8)
207:16	201:7,13,24	soils (2) 186:15	spoke (1) 211:24	175:24 176:21
seven (1) 223:11	202:9,13,16,18	204:3	stability (4)	176:23 178:18
share (6) 177:17	202:20 203:25	solution (1)	216:23 217:26	178:20 211:16
192:8 194:11,25	204:10,10 205:2	207:19	219:14 223:20	220:18 224:20
195:1 199:7	205:5,16,25	somebody (1)	stable (1) 216:10	stepping (1)
shared (1) 208:2	207:25 210:6	219:8	staff (14) 168:7	177:18
shareholders (1)	214:23,25,26	somewhat (1)	170:11 174:14	steps (1) 187:8
197:24	215:9,11,15	173:7	175:12,17 177:1	Stock (1) 192:19
sharing (2) 196:7	216:21 217:5,19	sorry (5) 176:6	177:13,19	storage (1) 216:2
225:8	218:20,24,26	180:12 182:7,19	178:12,16 191:1	stories (2) 194:11
sheet (2) 174:22	219:20	203:4	205:16 214:22	225:8
175:2	site-specific (2)	sort (20) 178:21	222:6	story (4) 192:8,9
sheets (1) 174:26	217:8,10	178:22 179:2	stage (3) 182:4	198:3 199:20
shelter (1) 193:3	sites (2) 194:21	181:20 182:20	183:6 190:5	streams (1) 204:9
sheltering (1)	203:17	182:24 183:6,23	stakeholders (2)	stretch (1) 220:5
192:16	sits (1) 173:23	185:20 186:10	196:19 217:14	stronger (1)
short (2) 173:13	sitting (2) 173:26	187:7 188:12,14	stamp (1) 219:8	204:26
220:5	202:4	189:3 190:4,7	stand (4) 174:7	structure (2)
shorter (1) 192:11	situated (1)	190:20,25 191:1	179:17 203:2	216:7 217:18
shorthand (2)	214:26	222:4	225:15	stuck (1) 203:13
226:5,6	situation (1)	sound (2) 173:1	Stantec (3)	studies (7) 200:14
show (2) 197:5	197:17	206:23	171:12,14,15	201:9,17,19,23
200:4	six-year (1) 186:5	source (1) 204:13	Star (2) 207:21,24	201:23 202:1
showed (1)	skill (1) 226:7	south (1) 173:24	start (7) 173:6	submission (2)
190:13	skip (1) 190:24	southeast (2)	176:25 177:23	214:16 222:13
shown (1) 197:9	slide (26) 181:15	183:25 215:2	185:12 208:21	submissions (7)
shows (1) 198:20	183:4,25 184:2	southern (1)	213:3 222:15	188:16,19
side (2) 175:5,5	184:8,17,26	192:26	started (8) 174:11	189:18 212:21
sign (3) 174:21,26	185:8,24 187:4	speak (12) 177:9	184:4 192:11	214:7,14 222:19
219:8	188:5 189:7	177:10,13 178:3	200:18,23	submit (1) 182:9
sign-in (2) 174:22	190:8,24 192:17	178:4 190:19	203:11 208:21	submitted (3)
174:26	193:26 194:23	195:23 202:8	220:11	214:15 223:10
significant (2)	197:11,26	205:24 207:1,23	starting (3) 182:3	224:5
194:18 196:25	198:22 199:6,13	209:4	185:15 203:22	subsequently (1)
silver (1) 198:11	199:22 200:18	speaking (4)	state (5) 176:19	173:21
similar (3) 195:5	206:8 207:6	176:19 190:22	178:3 188:21	substantial (1)
198:4 205:4	slides (1) 190:25	205:18,24	212:19 221:4	187:24
simultaneous (1)	slow (1) 182:8	speaks (1) 197:22	statement (1)	successfully (1)
176:8	slowly (1) 178:4	Special (1) 225:6	190:21	219:13
single (1) 181:3	smaller (1) 216:4	Species (1) 223:9	statements (1)	summaries (2)
Sir (1) 208:13	smallest (1) 181:2	specific (4) 185:7	192:22	182:21 187:14
site (40) 186:11	snack (1) 220:6	200:7 205:22	States (1) 194:19	summarize (2)
, ,				
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	·			

222:12 223:16	218:2 219:15	186:24,24	thought (2)	195:10
summarizes (1)	223:19,23,25	203:14	217:20 218:16	Toronto (5)
182:21	take (6) 181:17	Teresa (8) 176:5	three (4) 184:10	192:19 194:2,2
summary (1)	207:7 209:12	211:15,16	185:22 213:8	194:6 207:13
222:18	220:4,4,11	220:16,19 221:9	219:12	total (1) 197:24
superior (1)	taken (4) 170:1	221:12,24	three-year (1)	touch (1) 222:16
197:24	196:25 214:22	term (4) 184:26	199:17	track (1) 179:15
supplied (1)	226:5	186:25 216:10	throw (1) 179:9	train (1) 203:20
187:13	talk (11) 179:6	217:24	time (17) 175:23	transcribed (1)
support (8)	192:20 195:7	terms (3) 173:20	175:25,26	226:6
172:17 176:12	196:1 198:2	193:23 206:9	177:10 185:14	transcript (3)
193:24 194:22	203:4,5 206:2	Territorial (1)	187:1 193:1,18	168:18 226:1,4
197:25 202:5	207:7 213:6	213:22	196:25 200:12	transition (1)
206:22 219:22	216:15	Terry (1) 194:17	204:13 205:26	185:21
supposed (2)	talking (6) 186:20	testing (2) 210:2	204:13 203:20	translated (1)
189:9 211:1	193:25 194:25	215:21	212:19 218:10	187:14
sure (7) 175:22	199:19 202:19	thank (33) 174:9	212.19 218.10	translation (1)
178:8 181:21	204:5	176:24 178:17	timeline (1)	176:8
189:4 209:26		180:14 187:4	209:19	Translator (2)
210:5 218:20	target (2) 217:8 217:10	191:3 192:1	times (2) 185:22	` /
		197:7 206:7	197:2	172:21,24
Surface (1) 213:20	tea (1) 175:4			transparent (1) 196:13
II	team (4) 191:23	208:8,9 209:5,6	today (13) 175:12	
surprises (1)	199:24 202:25	209:9,22,24	175:13,21	treating (1)
215:14	206:13	211:5,16 212:13	189:13 193:26	204:22
surveys (1)	technical (32)	212:16 220:3,8	194:23 199:26	tremendous (1)
196:26	170:14,19	220:18,19 221:9	200:3 210:13	200:1
swear (2) 220:16	175:18 176:1,3	221:12,22,24	215:6 220:22	Tribunal (1)
221:2	176:26 178:12	224:10,11,14,20	222:7,10	213:20
Sweden (2) 193:6 196:24	180:12 182:3,6	225:4	Tologonak (1)	true (1) 197:18
	182:11,12,13,16	thanks (3) 191:6	205:20	tundra (2) 203:16
sworn (3) 168:14	182:23,26 183:8	191:24 225:6	tomorrow (4)	205:9
220:25 221:11	186:5 187:18,24	they'd (1) 188:9	•	turn (4) 174:13
	187:25 188:4	thick (1) 210:18	225:13	176:20 178:11
T (1) 170:12	201:18 213:7	thing (8) 188:12	Tong (1) 171:13	206:6
table (7) 168:1	214:4,12,15	196:4,8 201:12	tonight (4) 173:7	two (16) 174:2
174:18,22 175:5	220:24 222:18	201:13 202:3	177:16 221:4	176:7 177:3
174.18,22 173.3	223:11,15,17	208:25 209:1	225:6	183:11 188:19
tailings (30)	Technician (1)	things (3) 192:17	tonight's (4)	192:16 193:11
200:25 201:2,25	173:1	201:3 209:19	174:6 176:22,25	193:24 194:20
200.23 201.2,23 204:14,16,20,21	Teleconference	think (8) 173:6	224:21	201:1 202:10,23
204:14,16,20,21	172:9,11	196:26 197:9	Toomasie (3)	204:9 213:8
	tell (6) 179:17	202:11 209:3,17	170:7 173:15	219:13,14
209:2,11,12,17	192:8,21 195:8	216:12 219:13	224:16	type (8) 167:9
210:1,9,17,19	205:20 208:14	thinking (2)	top (2) 204:14	173:13 178:24
213:10 216:14	telling (1) 198:8	180:13 218:11	210:17	180:25 181:4,9
216:15,16,17,19	ten (5) 186:22,22	third (1) 213:12	Top-left (1)	181:13 215:7
216:21 217:26				
	-	-	-	-

Arminall- (1)	- (2)	107.11 12 17 10	205.17	
typically (1)	various (3)	186:11,13,17,18	205:17	weren't (2)
182:17	191:22 200:21	198:17 200:18	waters (3) 180:17	210:11 221:2
U	218:4	213:10 215:17	213:19,23	west (1) 215:1
	vast (1) 188:13	215:19,23 216:2	wave (1) 175:21	Wiatzka (1) 172:7
Ulu (3) 207:8,21 208:1	vegetation (1)	223:25	way (8) 184:9	wildlife (3) 209:3
	198:18	Wastes (1) 199:14	196:9,17 197:3	209:3 210:21
underground (7)	Vice-Chair (1)	wastewater (1)	197:8 202:7	Wilkins (1)
192:15 198:16	170:8	186:19	203:21 217:22	171:11
199:2,13 204:1	vicinity (1) 207:8	watching (1)	ways (1) 183:11	Wilson (6) 168:14
204:4,7	visited (1) 214:23	193:4	we'll (11) 181:14	172:16 221:7,7
understands (1)	voice (1) 179:20	water (85) 167:3	189:17 191:11	221:11 222:11
195:18	VOLUME (1)	167:9 168:7	203:22,26	wishes (1) 177:8
understood (1)	167:17	169:9 170:6,11	204:13,22,23	witnesses (1)
178:8	VP (2) 171:17	171:11 172:4,16	211:8 220:6,11	221:4
undertaking (2)	172:7	173:10,13,15,18	we're (32) 181:9	word (1) 195:7
184:21 185:4	W	173:19,20 174:2	183:6 186:1	words (2) 195:3
underway (1)		174:14 176:26	189:15 191:14	202:15
221:25	W-A-L-K-E-R	177:19 178:16	193:4,25 194:23	work (47) 179:19
United (1) 194:19	221:6	178:19,21,23,25	195:24 199:19	192:24 193:25
unknowns (1)	W-I-L-S-O-N (1)	179:3,10 180:7	200:6 201:22	194:8,24 195:20
215:14	221:8	180:15,21,23	202:19,19 203:9	195:20 196:21
updated (1)	wait (2) 177:13	181:4,5,8,9,14	204:1,10,24	196:25 197:1,10
173:20	178:2	183:20 184:9,10	205:11,22	197:13,13,14
updating (1)	walk (4) 178:12	184:12,20 185:3	207:19 209:17	198:15 199:20
218:11	198:1 199:22	185:18 186:7	209:19 210:2,6	199:23 200:1,20
use (12) 174:1,3	203:7	187:25 189:14	211:13,14	200:26 201:3,20
178:6 180:10,23	walked (1) 191:7	189:19 190:10	212:23 218:19	202:9 203:13
181:3,8 184:20	Walker (8)	191:1,8,10	218:25 219:4	204:9 205:14,15
185:11,18 186:7	168:14 172:14	192:2,7 194:17	220:4	205:16 206:4,12
217:9	221:6,6,11	195:26 197:8	we've (12) 183:8	206:12 207:4,21
uses (1) 186:8	222:2,2,8	204:23 205:7	186:20 187:8	208:3 209:15,21
usually (1) 181:2	walking (2)	206:26 210:21	191:7 197:9	210:3 215:12
utilization (1)	204:19 210:3	210:25,26	199:23 203:13	216:8 218:22
180:16	want (15) 174:21	211:17 212:8,13	203:14,19 213:5	219:6,6,8,11,23
V	180:4 194:25	212:16 214:2,3	214:18 219:3	219:25 223:22
validated (2)	196:3,16 197:4	214:7,9 215:7,8	wearing (1)	workable (1)
219:7,25	197:5 208:13,23	216:18 219:15	176:18	197:10
value (4) 196:18	209:7 210:10	220:20 221:10	weather (1) 193:7	worked (2) 195:4
196:22 197:19	216:10 218:23	221:13,19	welcome (3)	200:12
200:4	219:19,20	222:11,13,24	173:5,9 225:1	working (15)
valued (1) 199:24	wanted (6) 209:25	223:11 224:1,5	well-financed (1)	180:2,3,5
values (5) 194:26	210:8 215:18	224:6 225:3	193:23	194:21 197:8
` '	216:14,16	water's (1) 204:16	well-integrated	200:10 202:18
195:1,3 197:9 197:26	217:20	water-quality (1)	198:21 199:18	206:19 208:7,20
values-based (1)	washed (1) 218:2	201:26	went (4) 184:6,12	211:4,4 217:19
194:26	waste (15) 174:5	watering (1)	184:13 185:13	219:4 223:19
174.20	180:23 184:21			
	•	•	•	•

	1	ı	1	ı
works (3) 202:2	youth (1) 225:7	2000 (3) 184:11	26th (1) 226:9	9
206:15 212:12		184:12,18	27th (2) 187:10	9 (1) 225:13
worried (1)	Z	2001 (1) 184:22	189:2	9:00 (1) 225:18
216:26		2005 (4) 173:25	285 (3) 173:23	90 (2) 193:11
worthwhile (1)	0	184:7 201:16	183:25 215:2	203:11
190:1	1	215:4	29th (1) 187:22	203.11
wouldn't (1)	1 (0 174 10	2007 (1) 184:23	2AM-LUP1520	
183:20	1 (6) 174:19	2008 (2) 184:12	167:10 173:14	
writing (3) 190:18	195:12 200:16	184:25	178:25	
190:21 207:5	204:22 205:1,2	2009 (5) 184:13		
written (7) 182:9	1.7 (2) 184:19	185:2,4 192:10	3	
182:10 188:16	185:2	193:15	3 (1) 174:20	
188:19 190:20	100 (1) 186:7	2014 (5) 184:13	30-day (2) 182:3	
222:13,19	100,000 (1)	185:6 193:17	187:24	
wrong (1) 205:19	193:11	198:19 200:12	300 (1) 181:8	
	10th (2) 189:8,9	2015 (2) 184:15	32,000 (1) 201:6	
X	12 (3) 173:21	185:10	3rd (1) 189:1	
	186:6 203:15	2017 (2) 200:8,14		
Y	12-year (2) 186:3	2018 (2) 187:10	4	
yeah (7) 180:14	186:26	200:19	4th (2) 187:17	
182:22 187:4	13 (1) 180:8	2019 (7) 187:12	214:10	
208:13,15	13th (2) 188:15	187:12 201:8		
209:18 210:15	189:11	214:10,13,16,17	5	
year (21) 174:2,4	15 (5) 167:26	2020 (8) 167:26	5 (1) 200:23	
181:3 182:14	168:5 170:4	168:5 170:4	5,000 (3) 174:3	
184:15,20 185:3	173:26 220:7	184:15 189:1	185:17 186:9	
185:18,20	15th (1) 188:11	202:20 225:18	50 (2) 181:4,7	
186:10 187:17	16 (1) 225:18	226:9	500,000 (1)	
189:1 200:19	170 (1) 168:5	2021 (1) 202:20	185:20	
201:6 204:2,22	173 (1) 168:6	2021 (1) 202:20 2022 (1) 202:21	523 (1) 207:11	
205:1,2,4	178 (1) 168:7	208 (1) 168:9	585 (1) 186:8	
207:20 217:14	17th (1) 188:2	20th (1) 189:8		
years (23) 173:20	18th (2) 188:6,18	20th (1) 189.8 21 (2) 169:8	6	
173:21,26 174:2	191 (1) 168:8	221:17	60 (2) 183:2,2	
181:14 184:6	1980s (1) 215:3	211 (2) 168:11	685 (1) 186:7	
185:23 186:6,20	1981 (1) 208:21	169:4	6th (4) 188:3,18	
186:22,24	1982 (1) 184:5	212 (1) 168:12	214:13,16	
193:20,20 195:6	19th (1) 187:21	212 (1) 108.12 221 (2) 168:14	7	
199:23 201:1	2	169:8	7 (1) 173:20	
202:10,23,26		222 (1) 168:15	7:03 (1) 173:3	
203:14,15	2 (5) 167:17	224 (1) 168:17	70 (1) 205:25	
209:26 210:4	174:19 200:16	226 (1) 168:18	7th (2) 188:4	
Yellowknife (4)	204:2 205:4	23 (1) 218:22	214:13	
176:11 184:1	2.5 (1) 186:20	250 (1) 215:1	217.13	
203:23 207:12	20 (6) 169:4 184:5	250,000 (1) 174:1	8	
yesterday (1)	184:23 185:1	26.1 (2) 218:21,26	8 (1) 214:17	
212:22	193:24 211:26		86 (1) 203:10	