

## **LMI Closing Statement**

### **1. INTRODUCTION**

The primary purpose of this hearing has been to consider the Lupin Mines Incorporated (“LMI”) Application for Renewal (the “Application” or “Licence Renewal”) of Water License 2AM-LUP0914 (the “Licence”).

At the outset, LMI wishes to thank the Nunavut Water Board (the “Board”), Board staff, all Intervenor, and members of the community for carefully considering this Application and for making constructive suggestions and contributions to the information base. LMI has listened carefully to the recommendations made by all parties respecting the License Renewal, changes in terms and conditions of the License, and issues of process and substance relating to reclamation bonding and site management, and LMI has tried to respond in a constructive way.

In these closing submissions, LMI will provide a final summary of its application, as well as a summary of its submissions in response to various matters that were discussed during the hearings and in the final Intervenor statements filed February 23, 2015.

### **2. OVERVIEW OF APPLICATION**

The License was issued on February 25, 2009 and amended May 25, 2009, for the Lupin Mine (the “Mine”) and authorized LMI to conduct mining, milling and associated activities at the Mine. The Application is for a ten year extension of the Licence term.

At present, operations at the Mine are in care and maintenance. As discussed during the Licence Renewal, LMI has not made a decision to enter into final closure and reclamation of the site as LMI has determined that it is economically feasible to recommence production mining in future, should gold prices support such action. For this reason, LMI is requesting a renewal of the terms and conditions of the Water Licence which authorize LMI to conduct mining, milling and associated activities at the Lupin Mine. LMI has requested the Board to renew the Water Licence on substantially the same production mining terms in order to permit LMI to recommence mining at the Mine once economic conditions support production.

LMI has also proposed a 10 year licence term renewal, which will support the mine entering back into production given the expected economic cycle. Section 45 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (“NWNSTRA”) provides that the term of a licence or any renewal shall not exceed twenty-five (25) years. The terms and conditions of the water licence are sufficiently stringent in to provide protection of water resources over a 10 year term. As outlined in LMI’s presentation, and summarized in this Closing Statement, LMI is confident that it has met the requirements for a 10 year renewal of the License. A 10 year term would provide an opportunity to re-open the mine during

favorable market conditions, while a short term renewal would significantly challenge any ability to attract the necessary financing and bring the Lupin Mine out of care and maintenance.

LMI requested amendments to the licence in order to provide for reduced monitoring and water use during care and maintenance project phases.

LMI is requesting the Board to approve its Landfarm Management Plan. LMI will be following standard operational procedures for Northern landfarm facilities.

LMI is requesting to remove the reference to revegetation at Part I, Item 9 of the Licence, *“Notwithstanding the time schedule referred to in the Abandonment, Reclamation and Closure Plan, the Licensee shall implement Progressive Reclamation, including progressive covering of the tailings and revegetation, as soon as is realistically possible.”* As described during the public hearings, attempts were in 2001 made to revegetate the site. While transplanted materials have survived, no propagation has occurred. This trial supports the prevailing view that it is virtually impossible to regrow on esker 1 m or thicker without adequate soil media, which is not available in the project area unless substantial areas of tundra are excavated. This matter was described in the closure plan. LMI requests the Board to remove the reference to revegetation from Part 1, Item 9.

With respect to reclamation bonding, LMI’s detailed estimate shows that the current bond exceeds the current reclamation liability at the Mine but has requested the Board to leave the reclamation bond in the current amount of \$25.5 M.

Each of these items, as well as Intervenor comments and submissions, are considered in further detail below.

### **3. SATISFACTION OF STATUTORY AND PROCEDURAL REQUIREMENTS**

LMI submits that all statutory requirements of the NWNSRTA and *Nunavut Waters Regulation* have been fulfilled in respect of the Application.

Section 48 of the NWNSRTA sets out the Board’s application requirements, which have been met. LMI filed an application which complied with the Board’s Rules, including the application fee as required. LMI also provided the necessary information to evaluate the qualitative and quantitative effect of the use of water or the deposit of waste into water.

Section 57 of NWNSRTA provides several key legislative requirements that must be satisfied before the NWB may issue a licence:

57. The Board may not issue a licence unless the applicant satisfies the Board that

(a) any waste produced by the appurtenant undertaking will be treated and disposed of in a manner that is appropriate for the maintenance of the water quality standards and effluent standards that are prescribed by the regulations or, in the absence of such regulations, that the Board considers acceptable; and

(b) the financial responsibility of the applicant, taking into account the applicant's past performance, is adequate for

(i) the completion of the appurtenant undertaking,

(ii) such measures as may be required in mitigation of any adverse impact, and

(iii) the satisfactory maintenance and restoration of the site in the event of any future closing or abandonment of that undertaking.

With respect to section 57(a) of the NWNSRTA, as illustrated during LMI's presentations, LMI has ensured that the Lupin Mine site is maintained in a tidy, orderly and environmentally sound manner. LMI has also demonstrated that it has expended considerable funds upgrading existing facilities, removing hazardous waste and consolidating materials and equipment in a neat and compliant fashion. LMI is in material compliance with the expired Licence terms, and has requested the Board to include monitoring requirements to a frequency appropriate to the current care and maintenance phase, to ensure both compliance with the NWNSRTA and worker health and safety. LMI has addressed historic issues at site in a manner appropriate to the current project phase. Facilities have been maintained in a responsible manner in compliance with the Licence and the NWNSRTA. With the exception of the September 2014 direction to dewater the sewage ponds (which was issued at LMI's request and in consultation, in order to ensure that LMI had sufficient regulatory authority in order to undertake required site management activities), no Inspector's directions have been issued at site since the licence was issued in 2009, and all effluent discharges have been compliant with the licence.

With respect to section 57(b) of the NWNSRTA, LMI submits that it has demonstrated the necessary financial responsibility for the renewal of the License. Under the expired Licence, LMI's parent entity Elgin Mining Inc. furnished financial security in the amount of \$25.5 M for potential closure and reclamation liabilities. The most recent audited financial statements of Mandalay Resources were filed with the Board as Exhibit 5 and Mandalay confirmed through its LMI representatives that Mandalay is responsible for its subsidiaries Elgin Mining Inc. and LMI:

Public Hearing Transcripts, Vol. 1, p. 93:

12 MR. DOWNEY: Patrick Downey, LMI. The --

13 they're all wholly owned subsidiaries. It's just a

14 basis of holding assets. So just to give you an

15 example, Mandalay owned a company in Sweden called

16 Bjorkdal, which owns the Bjorkdal mine. It just

17 happens to be called Bjorkdal. They have a separate

18 company in Chile which holds their assets. LMI holds

19 the assets here. So the security is in LMI's name, but

20 the -- LMI has no income or -- or outflow. So it's  
 21 covered by Mandalay; they are responsible as the parent  
 22 company of those -- of LMI. So it's just really a  
 23 structure -- a corporate structure that flows straight  
 24 down through the -- from -- from corporate.

Mandalay directed Mr. Downey to confirm these statements, and LMI reconfirmed that Mandalay is responsible for its subsidiaries LMI and Elgin during the hearings the following day. LMI also provided evidence to the Board that Mandalay responsibly carries out mine site reclamation of projects owned by its subsidiary companies (see Public Hearing Transcripts, Vo1. 1, p. 30-31):

22 We have an exemplary record in mine-site closure  
 23 and reclamation. Most recently, we closed a redundant  
 24 mine in Chile, right next to the operating mine. It  
 25 had significant ARD issues to deal with. That was  
 26 closed very successfully in 2013, and, again,  
 1 recognized by the Chilean Government. And we're in a  
 2 trite-bearing fishing area where that mine was.

During the Application, LMI indicated that while its updated financial security estimated for the project is less than the amount previously posted, it has requested that the Board maintain financial security at \$25.5 M (see also Exhibit 5). As set out in LMI's submissions and actions taken during the licence term to upgrade the Lupin Mine site, LMI is of the view that sufficient evidence is before the Board in order for the Board to conclude that LMI's past performance supports the issuance of a licence on reasonable terms. Further, LMI is of the view that the LMI evidence before the Board shows that environmental risks relating to the Mine site are well known and where there is uncertainty, LMI has provided additional contingency measures. This approach is well supported by LMI's approach to reclamation cost estimates. Quantities and material cost estimates that form the basis of this estimate are based on proper engineered data and supported by contractor unit rates based on site visits by an experienced Northern Contractor. It should be noted that the material amounts are generally very similar to those previously approved by the NWB , as nothing on site has substantially changed since the bond was set by the Board previously.

#### 4. NEED FOR A PRODUCTION/CARE AND MAINTENANCE WATER LICENCE

An essential component of LMI's renewal application is the need for the issuance of a water licence including production mining terms (as is reflected in the current expired Licence).

The Mine previously was in production from 1982 to 2005. Significant expenditures of over \$54 million have been made by LMI in the period of 2011 to 2013, including work to determine cost, feasibility and timeline to put the Mine back into production. This planned restart was outlined in LMI's presentation. LMI made these expenditures in the full expectation that the License would be renewed to enable the Project to resume production mining. While a sharp decline in gold price curtailed operations, it is LMI's view that sufficient mineral resources as well as facilities at site are sufficient to support approximately 4.5 to 5 years further of production mining and potentially longer. As LMI stated in response to AANDC's question as to the expected mine life of Lupin (Public Hearing Transcripts, Vol 2., p. 281):

- 1 MR. DOWNEY: Patrick Downey, LMI. My
- 2 apologies. It wasn't in that presentation. I took it
- 3 out from a historic presentation. So I didn't include
- 4 that slide. But it's approximately four-and-a-half
- 5 years. Apparently I spoke to it on Slide 17.

As set out in section 35 of the NWNSRTA, *"The objects of the Board are to provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimum benefit from those waters for the residents of Nunavut in particular and Canadians in general."* Recommencement of production mining at Lupin would have significant economic benefits to Nunavut and to Canada, and could support the development of other nearby projects in the region.

Mineral exploration and mine development are lengthy, capital-intensive and high financial risk endeavours. As such, individuals and companies will only be willing to invest their time, effort and money in mineral exploration and mine development if they know that their rights to develop a mineral discovery are secure. Access to Crown lands open for exploration is granted in order to promote active mineral exploration and where circumstances permit, production. Mineral production provides considerable employment in Nunavut, both from the personnel directly undertaking the exploration and by the employment created in support services. Much of the information collected by mineral exploration firms becomes public information, either through the exploration work assessment reports filed with the Mining Recorder's Office or through their own public announcements and security information filings. Thus, private mineral exploration and development provides a public good – improved geological knowledge of the North which feeds the mineral resource development cycle. These are all statements drawn from the public website of AANDC and LMI is in full agreement with them.

LMI has fulfilled all of AANDC's requirements under the *Territorial Lands Act* and *Nunavut Mining Regulations* which entitle LMI to recommence production at Lupin Mine, and have maintained all surface leases and leased claims applicable to the Lupin Mine site (see Exhibit 11). Together, these AANDC approvals provide LMI with permission from the Minister of AANDC to undertake production

mining at the Lupin Mine site, subject to the requirements to obtain any permits required under other legislation.

It is improper for AANDC to request the Nunavut Water Board to decline to renew the existing terms of the Water Licence which permit production mining on the basis that *“there is no evidence before the board that a minable reserve or resource exists to support resumption of mining activities”* (see slide 65, Exhibit 10). Neither the NWNSRTA and its regulations, nor the Board application process indicates that this is a consideration of the Board in determining whether to renew a water licence.

While a determination as to whether or not a mineable reserve or resource exists is a securities legal requirement and not included as part of the NWNSRTA and regulation, in any event LMI wishes to provide the following context for the evidence provided to the Board on these matters in Exhibit 3. In the public trading context, mining and mineral exploration companies in Canada must follow specific guidelines for disclosure, designed to improve the accuracy and integrity of the information they provide. These legal requirements were developed in order to prevent fraud in respect of mineral projects. National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) governs a company's public disclosure of scientific and technical information about its mineral projects. NI-43-101 prohibits the disclosure of the results of an economic analysis that includes or is based on inferred mineral resources, a historical estimate, or an exploration target until after an issuer has completed a feasibility study or pre-feasibility study that establishes mineral reserves. Such statements must be included by law in the 43-101 report and reading such statement as if it pertained to Lupin alone is misleading. It is simply a legal requirement that every NI 43-101 based on inferred resources must have this statement included within the report.

LMI's decision to defer preparation of a feasibility study for re-start of operations at Lupin Mine is a common practice in the current economic conditions and does not support the conclusion that it is not feasible to reopen Lupin Mine. As set out in the mine plan presented at the hearings for the restart planned in 2012, it is known that there is about 4.5 to 5 years of mining in one zone (the West Zone South of Shaft) based on current exploration results. Furthermore, as presented during the hearing historic drilling results below this area clearly shows that the system continues at depth indicating that this 4.5 to 5 year mining period could be extended once underground operations and development recommence.

LMI submits it has provided significant evidence to the Board that it intends to resume production mining at the Mine as soon as economic conditions support. In LMI's Reply (Exhibit 9), LMI provided a detailed overview of the positive exploration drilling results that the company has had in recent years, and demonstrated LMI's mine plan which would support economic mining provided is granted a water licence which would continue to permit production at Lupin should prices rise. LMI has also consistently stated its intent to reopen the Lupin Mine in its Annual Reports to the Board as well as other filings appearing on the public registry:

- 2011 Annual Report: *“No reclamation activities as it relates to the tailings cover occurred in 2011. LMI is currently investigating options to restart mine operations. Until such time as this work is advanced, the property will remain under care and maintenance; formal reclamation works will not be initiated.”*

- 2012 Annual Report: *“No reclamation activities as it relates to the tailings cover occurred in 2012. LMI is currently investigating options to restart mine operations. Until such time as this work is advanced, the property will remain under Care and Maintenance; final reclamation works will not be initiated.”*
- 2013 Annual Report: *“LMI continues to monitor the global economic climate and evaluate the feasibility of operating the Lupin mine along with the potential for identifying additional resources through its exploration activities. In the interim, the site remains in care and maintenance and a decision with respect to Part I, Item 5 was not contemplated in 2013.”*

This is also consistent with LMI’s previous submissions, reflected in the 2009 Record of Proceeding/Reasons for Decision for 2AM-LUP0914, *“LMI does not intend to fully decommission the site until all practical options for resuming operations have been fully explored, as such actions would hamper efforts to attract a joint venture partner and degrade the potential to utilize the Lupin infrastructure and mill as part of the Izok base metal project.”*

As discussed during the hearings, gold prices are extremely variable (the drop from the all-time high to \$1100 took place in less than 3 months). The decision as to whether to recommence production is dependent on permitting schedule, economic conditions and the business decision of the owner.

## 5. RECLAMATION SECURITY

Another essential component of the Application is the request that the Board set reclamation security at \$25.5 M, which is sufficient to effectively and fully reclaim the site. In support of this request, LMI has submitted a detailed cost estimate, based on third party contractor quotes and several detailed engineering studies. The estimate was compiled under the following parameters:

- All parties contributing to this work have had full and free access to site to verify unit costs and quantities.
- Unit costs and rates reflect contractor quotes and costs.
- Mobilization and demobilization costs based on recent quotes and additional input from contractors and consultants.
- Quantities updated to accurately reflect engineering studies, measured quantities and detailed drawings and designs.
- ARD estimates updated to reflect data compiled by Morrow.
- Tailings rip rap and ditching included.
- Indirect costs such as engineering reflect level of engineering and data.
- Contingency calculated based on risk and probability analysis of all areas of the estimate.

The NWB Rules of Practice state: *“In cases in which the Board accepts evidence, any party offering such evidence shall have the burden of introducing appropriate evidence to support its position. Where there is conflicting evidence, the Board will decide which evidence to accept and will generally act on a balancing of the evidence”* and, *“Where a party presents no evidence supporting or rejecting the applicant’s evidence, the NWB will base its decision on its own assessment of the Applicant’s request.”* LMI’s approach to the estimate is precautionary and that sufficient information has been provided. The LMI estimate is based upon sound engineering data and scientific study to support its position with respect to reclamation estimates. In contrast, as identified further in the following paragraphs, AANDC’s suggested reclamation estimate of \$43.5 M is not supported by evidence. Specific items of disagreement between the AANDC and LMI estimate are identified and discussed further below.

(a) 2014 Updated Estimate

In its closing remarks, KIA questioned how the 2001 estimate can be the same as the 2014 estimate, and still be sufficient to form a reasonable basis for estimate. This is a reasonable question and the answer is that since 2001, reclamation work that formed part of the 2001 estimate has been completed. Costs that were estimates at that time can now be better quantified. The reclamation cost estimate assessed in 2001 included placing the cover on the tailings. The tailings cover work is 75% complete and \$16M of the \$19M earmarked for that task was no longer required by the end of 2005. The attached document (which appears on the public registry) is a useful reference. Since 2001 the majority of the tailings have been covered, so LMI now knows that the unit rate and cost are fully quantified. Detailed work has been completed at site, which is reflected in the unit amounts and rates. This includes removal of underground transformers which reduced site risks during the care and maintenance phase. Rates have been provided by two qualified contractors in 2006 and 2013 and these rates accurately reflect the costs for reclamation. Unit rates are clearly defined in the estimate, and did reflect changes which have occurred since 2001 (due to labour pressure, deflation and other market forces).

(b) Overall Contingency

A statement was made by AANDC that a 25% contingency would be consistent with other licences. However, the Lupin Mine licence is unlike many others in that it is a mature site with known quantities and significant studies completed and a final closure plan for the TCA, all of which are filed with the NWB. LMI’s 10% contingency is based on detailed analysis and is consistent with other projects at this life stage. There have been several technical papers published by authors with significant experience in mine site reclamation costs and estimates and the contingency amounts stated in these papers are consistent with that calculated by LMI. Furthermore, there is an additional \$1.4M in the security currently held by AANDC when compared to LMI’s cost estimate, which effectively brings the contingency to 19%, which is very precautionary and conservative given the high level of knowledge about the Minesite.

(c) RECLAIM

As indicated in mine reclamation policies cited by AANDC, it is permissible to use other models than RECLAIM. RECLAIM is a computer spreadsheet that has entries programed to accept unit costs and volume estimates. As stated in the Conditions of Use of the RECLAIM model: *“This Reclamation Cost Estimating Model was prepared to serve as a guide for Government Agencies, mining companies, and others to estimate the cost of mine reclamation. It is recognized that one model cannot cover the full range of possibilities encountered during reclamation. It is expected, however, that this model is*



sufficiently comprehensive and flexible to provide the user with a forecasting tool to meet most reclamation situations. This model is not intended to replace reclamation planning or to be used to determine the activities required to reclaim a site or to dictate how much should be spent on reclamation.”

LMI’s estimate was converted into RECLAIM. This is a common practice and has been accepted by the Board on other occasions (most recently in respect of the Nanisivik licence renewal).

(d) Evidence-Based Assumptions

AANDC’s expert confirmed during the hearings that he had not been to site since 2002 and did not attend at site for the purposes of preparing his 2014 reclamation estimate. In his presentation, AANDC’s expert stated several times that his numbers are based on his opinion, stating that *“I have no basis for this number”* or *“this is essentially a guess”* or *“this could be more than what is in the estimate”* or *“this is only my personal opinion”*. In contrast, LMI’s estimate is based on detailed engineering reports, extensive site knowledge and the input of experts in this field, the work of industry contractors with experience in the North as well as professional opinion. It is LMI’s submission that the LMI estimate should be preferred.

The AANDC expert provided his view that the tailings impoundment area is failing, based on pH data. However, this view did not take into account the substantial available evidence the facility is functioning exactly as designed. pH is not a flag that the facility is not functioning. Current pH levels are expected since the system is not completely closed and sealed with esker cover. The water currently in the system is treated to adjust pH prior to discharge to meet effluent limits. This is part of the management required prior to final closure of the TCA and it is functioning as expected given its current status. All other data clearly shows that the system is operating as designed.

In fact, there is significant data regarding the performance of the TCA. As stated in the Holubec Closure Plan for the TCA:

*“Lupin started to cover exposed tailings in completed cells in 1988 and monitoring the covered tailings to assess the effectiveness of the covers. As a result, Lupin has collected the most extensive and longest observed performance records of covered cells in permafrost areas.*

*Data collected includes ground temperatures, water levels within the cover, water quality within the cover, slope of tailings surface, thickness of tailings deposition, moisture content of the cover, and particle size analyses of tailings and cover materials. Various studies have determined the durability (physical and chemical) of the cover material, water balance within the cover during drought conditions, and pore water expulsion potential from the compacted tailings during thaw conditions (Golder 2004). Test pits excavated through the cover to the tailings surface were examined for evidence of cryoturbation, oxidation at the tailings interface, presence of ice lenses, and condition of the tailings/cover interface.*

*In 2004, Lupin continued to monitor the various covered cell instrumentation, and has collected additional information to validate the effectiveness of the saturated zone cover.”*

The current monitoring continues to validate the above.

The Final TCA closure plan which includes the detailed reports from Holubec, Ecomatrix and Golder, clearly demonstrates that the system will operate as planned once final closure and cover is complete. This is based on sound scientific and engineering data, recorded since 1988 with data analysis to this day.

(e) Fuel

LMI has reviewed the *Mine Site Reclamation Policy for Nunavut* (2002) and it does not include any statement that a provision to mobilize fuel is required and that estimates cannot take into account fuel present on site. LMI have consulted engineers familiar with RECLAIM and they have confirmed that RECLAIM does not require that the estimate must assume no fuel is present at site, and that all fuel on site must be destroyed. SRK (who developed the first iteration of RECLAIM) has confirmed that it is permissible under RECLAIM to assume use of fuel already on site for reclamation purposes.

With respect to AANDC estimates relating to fuel, there is no reason to consider the fuel on site as unusable. LMI and AANDC contractors both used it during 2014 and the fuel is of standard and useable quality. The volumes stored on site are well known and reported to the NWB. As such, it is not necessary to include mobilization of fuel to site and disposal of on-site inventories within the estimate.

(f) Post Closure Monitoring

AANDC bases its suggestion that post closure monitoring, inspection, care and maintenance should be required for 100 years on the basis that tailings are “retained behind man-made dams and impound water with hydraulic structures”. LMI believes this recommendation is based on a fundamental misunderstanding about the system that will be left in place at final closure. The detailed report completed by Holubec Consulting as part of the final TCA plan clearly states that there will be no dams or structures holding back water at final closure. Therefore, an allowance for 100 years of monitoring and maintenance of “*water retaining structures*” is not required.

It is noted in the approved TCA closure plan that a period of 7 years post closure monitoring is anticipated. LMI costing is based on a 25 year post closure monitoring timeframe and is therefore precautionary and conservative.

(g) Permitting

With respect to permitting cost estimates, LMI has allowed \$400,000 for development of the Final ARP, permitting and review within in the engineering line item (see (h) below). This is a precautionary and conservative estimate given the work remaining to be done. Despite AANDC’s expert’s suggestion that if the Crown completes this work it will cost an additional \$900,000, it is reasonable to assume the Crown would complete this work for the same cost as any other third party doing the work and there should be no additional contingency for this purpose. LMI anticipates the licensee will ultimately be completing the closure and reclamation of the site, but should the situation arise we believe that AANDC can complete the required tasks in a proficient professional manner, and the reclamation bond should reflect this.

## (h) Engineering

With respect to engineering cost estimates, most of the engineering is completed, in particular the TCA engineering design is complete. Most of what remains are known scientific studies, a spill way design and final as-built reports for covers and spillways. Based on current average engineering rates AANDC's estimate would equate to 31,000 manhours of engineering or 15 engineers working this project full time for an entire year. As agreed by AANDC's expert in response to questions by LMI, this is an excessive amount. Furthermore since the AANDC's expert is based on a simple 10% of his costs this would clearly indicate that the amounts stated in his estimate would also be excessive. LMI's estimates should be preferred.

## (i) ARD Rock

For the purposes of the Interim Abandonment and Restoration Plan (IARP), it is assumed that 40% of the waste rock will need to be handled as ARD material (which is consistent with AANDC's consultant SENSES' approach). LMI agrees that additional studies will be required to assess the various remedial options available for dealing with potentially acid generating waste rock in order to develop a final reclamation and closure plan. However the cost estimate within the submitted RECLAIM estimate is based on the worst case scenario in terms of costs. If the preferred option requires segregation of the PAG rock, it is acknowledged that further work will be required to assess methods for identifying this material during excavation. Segregation may not be the most cost effective approach for some of the options under consideration, such as consolidating and covering the waste. Therefore, LMI proposes to complete a more detailed options evaluation prior to closure, and then tailor any further investigations required to finalize the preferred option. Seepage surveys would be undertaken to monitor the acidic nature of the waste rock prior to the development of the final closure and reclamation plan. The level of contingency proposed by LMI on this point is very conservative and should be preferred over that put forward by AANDC. AANDC's expert also stated that the unit costs for placing such rock underground were low. Note also that only a certain percentage will be placed underground and therefore the rate is a blended rate.

## 6. SITE MANAGEMENT

As stated on the Board's website, *"The NWB does not have enforcement powers. Once a licence or authorization is issued by the NWB, the jurisdiction of the NWB ceases. Compliance with the NWNRESTA and the Regulations or enforcement of water licences and authorizations for the use of water or deposits of waste fall under the jurisdiction of Aboriginal Affairs and Northern Development Canada, whose Minister appoints Inspectors for that purpose."* It is the role of the Inspector to, *"Determine licence compliance with respect to standards prescribed in the regulations or imposed by licences"* (see [http://www.nwb-oen.ca/regulatory-process/licensingprocess/roles\\_and\\_responsibilities\\_during\\_process](http://www.nwb-oen.ca/regulatory-process/licensingprocess/roles_and_responsibilities_during_process)).

The Inspector indicated during the hearings that there are instances of non-compliance respecting the Water Licence, however, LMI believes this is an inaccurate characterization of LMI's compliance with the standards prescribed in the regulations and imposed by licence. LMI has responded to these matters in detail in its written response to the Inspector's letter of November 27, 2014 which has been filed on the Nunavut Water Board public registry for the Lupin Mine under the "Inspection" folder.

Where issues of concern have been flagged by the Inspector, LMI has undertaken further analysis and investigation and entered into dialogue in order to attempt to resolve any outstanding questions. This approach is important, as in several cases information has been requested by the Inspector which has already been submitted by LMI to the NWB. As an example, the Inspector was not aware of LMI's intention to recommence production at Lupin although this information was included in each Lupin Annual Report since 2011. The Inspector also requested fuel volumes after they had been submitted by LMI. LMI understands how this type of detail can be missed but this shows the value of an open dialogue between the Inspector and licensee. In other cases, the requirements of the Inspector have been unclear and LMI has found it necessary to seek clarity from the Inspector.

Other "non-compliance" issues relate to requests by the Inspector outside of the standards prescribed in the regulations and the licence. As an example of non-compliance, AANDC flagged the issue of windblown materials on the ground near the Tailings Containment Area ("TCA") as a non-compliance with the Water Licence. LMI is in full compliance with the current Licence terms relating to the TCA. LMI has undertaken investigations relating to this concern and has provided strong technical evidence that shows that the materials are not tailings but esker. A visual scan of the area supports LMI's conclusion that the materials are not tailings, since Lupin tailings are a distinctive red coloration. There is no reason to assume these materials are "waste" and there is no evidence to indicate that there are any potential deposits to water resources or that the tailings may otherwise be leaving the TCA. There is no evidence of uncertainty relating to windblown tailings (both on observable evidence and based on the sample taken by AANDC inspector) and accordingly, the financial security for the project should not be impacted by this issue.

Site wide investigations on windblown tailings would have a significant cost to LMI and there is no reasonable evidence before the Board which suggests such an investigation is necessary or desirable. LMI has agreed to undertake further sampling in the Inspector's area of concern as per Commitment No. 1 in the NWB TC PHC Decision, *"LMI will conduct follow up sampling in June –August 2015 to characterize the material deposited below dam 6. Samples will be collected in a 25 m grid pattern. Grain size analysis along with metals analysis will be conducted on every other sample collected from the grid row immediately adjacent to the DAM. Based on sampling results further actions and potential mitigation would be outlined as necessary by December 31, 2015."* LMI would not object to the inclusion of this commitment in the renewed Licence.

AANDC has also suggested that the renewed Water Licence should require LMI to immediately close the TCA. LMI will eventually place permanent cover on the entire TCA, as required by the licence at closure. The remaining storage capacity is essential to future mine restart to retain tailings impoundment capacity on site. If the TCA is permanently closed prematurely this could effectively eliminate the opportunity for Lupin restart. LMI submits there is no reasonable evidence before the Board which would support including a term in the renewed licence which requires permanent closure of the TCA before the facility has reached the end of its life.

Similarly, AANDC has not provided any reasonable evidentiary basis for its request that LMI undertake a new Environmental Site Assessment (ESA). The site has been in care and maintenance since 2005, and the results obtained by Morrow in 2005 during the detailed ESA remain valid. Soils in vicinity of satellite tank farm will be remediated during 2015 and a report on this activity provided to the Inspector. As per Commitment No. 1, additional surveys are being undertaken near the TCA in 2015. The Inspector has not identified any specific concerns which would warrant a comprehensive site wide investigation of the

type requested. LMI agrees that an update to the ESA would be appropriate prior to final closure and reclamation of the Lupin Mine.

In several cases, the Inspector has requested information which is not available for the March 31, 2015 timeframe due to weather constraints. As an example, additional information respecting hazardous waste management could not be obtained in October 2014 due to early snowfall. LMI is of the view that its proposed timeline, which would see the information gathered and reported in late 2015, is a reasonable approach.

## **7. COMMENTS REGARDING HEARING EXHIBITS**

### **(a) Response to AANDC Comments Regarding Board's Filing of Documents Offered by LMI**

With respect to Exhibit 3, this information was provided in order to respond to AANDC's statements regarding a lack of evidence supporting LMI's intention to re-open the Lupin Mine. LMI was not aware this was an outstanding question for AANDC (given that LMI had communicated this in the Annual Reports as well as in the public markets) until it reviewed AANDC's presentation which was not filed until the first day of the hearings. In any event, the document has been filed for 19 days and the parties have had sufficient opportunity to consider and comment on the report. As stated in the public hearing there is no need to construct additional infrastructure to restart the mine. As the mine is an underground operation the production of waste (development) rock is very limited and there is no foreseeable reason it cannot be disposed of underground as backfill. LMI's mine plan contemplates use of the facilities currently constructed at site and does not contemplate expansion or revision of existing site facilities. LMI would anticipate that it will be required to update the reclamation cost estimate at a reasonable time (90 days) prior to recommencing production at Lupin Mine, which LMI and AANDC agree is the appropriate time for notice of recommencement of production.

With respect to Exhibit 9, as per LMI's comments regarding Exhibit 3 this information was provided in LMI's reply to AANDC's statements regarding a lack of evidence supporting LMI's intention to re-open the Lupin Mines. LMI was not aware prior to the hearings that there was interest in such information. In any event, the evidence was provided 18 days ago and the parties have had sufficient opportunity to consider LMI's reply evidence. With respect to AANDC's comments, the timing of production mining at Lupin is dependent on market conditions and the plans are evidence of LMI's significant efforts to bring the mine back into production. Mines go into care and maintenance in order to allow for the extraction of remaining resources during more favourable market conditions. As an example, the CanTung Mine in NWT was on care and maintenance from 1986 to 2001 and it remains in operation to the present day.

### **(b) Comments Regarding Board's Filing of Documents Offered by AANDC**

With respect to Exhibit 7, LMI's concern is that the information contained in this table was well known to AANDC well in advance of the filing date, and that the document is essentially a further reply to LMI's written submissions of January 21, 2014 outside of the timelines and processes established by the NWB. Nonetheless, LMI has attached its comments on this table in a further column (located on the far right), and should the Board accept this Exhibit LMI requests that the Board consider LMI's responses to each of the items included in the table.

**8. CONCLUSION**

For all of the reasons above, LMI requests that the Board grant the Renewal Application on the terms and conditions requested by LMI and reflecting the commitments made during the TM-PHC as listed in the PHC decision.

TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
2015-01-05 AANDC Cvr Ltr #1		As indicated in our letter of December 4, 2014, AANDC identified three main issues at the Technical Meeting and Pre-Hearing Conference (TM-PHC) that we believe would prevent the application from proceeding to a hearing, including the failure to submit the following: <ul style="list-style-type: none"><li>• a list of commitments (incomplete list submitted on October 31, 2014);</li></ul>	<p>The commitment list as submitted by LMI on October 30, 2014 remains a complete list of commitments made by LMI as an outcome of the Technical Meeting (TM) and Pre-Hearing Conference (PHC) held on October 22-23, 2014 (please note AANDC indicated an incorrect submission date). At the TM-PHC it was agreed that LMI and AANDC would update and submit their respective views on commitments as an outcome of the TM-PHC. <b>In an effort to work with AANDC following the TM-PHC, LMI contacted AANDC via email to obtain the commitments they recorded to ensure all parties were in agreement on the list of commitments after the meeting and to provide clarifications as needed.</b> AANDC did provide their recorded list to LMI on October 29, 2014. AANDC also provided LMI (within the same email) a list of commitments since the application's completeness review (this list was included in their Dec 4, 2014 submission to the NWB and distributed by NWB on January 4, 2014). LMI responded with the final commitment list on October 30, 2014, submitted to NWB on-time as required. This submission by LMI also included LMI's responses, updates and clarifications to each of the commitment items requested by AANDC as emailed to LMI on October 29, 2014.</p> <p>The above AANDC statement is misleading as AANDC appears to have included their own requests/recommendations/comments from their previous submissions as LMI commitments. Where LMI has not agreed to these items, AANDC incorrectly states the list is incomplete. While it is correct to identify these as unresolved issues, it is not correct to state that the PHC decision commitment list is incorrect or incomplete.</p>	AANDC notes that using our list of commitments to make their own does not ensure there was agreement with the list of commitments.	As stated in column D, LMI contacted AANDC to ensure all parties were in agreement on the list of commitments agreed to during the PHC. LMI was attempting to work with AANDC in a coordinated effort and fully considered AANDC's input on the list of commitments following the TM-PHC. Where reasonable, AANDC's recommended commitments have been adopted by LMI. Others have been addressed by providing information during the renewal process or identifying where previously provided information addresses the issue. While best efforts have been made, LMI acknowledges that it is not always possible to reach agreement on proponent commitments as it is LMI that owns their implementation, not AANDC. LMI's list of 15 commitments is comprehensive and addresses key issues related to water use and waste disposal. LMI agrees that commitments related to water use and waste disposal may be incorporated into the licence renewal by the NWB. LMI's responses to AANDC's final hearing submission, and clarifications provided by LMI during the public hearing, have highlighted many of the oversights made by AANDC regarding submission dates and compliance items. These clarifications include LMI's timely submission of PHC follow up information on December 5, 2014 following issuance of the PHC decision on December 1, 2014, including the landfarm management plan, fuel inventories and IARP Errata. LMI also clarified during the hearing AANDC's oversight of fuel inventories in the 2013 Spill Contingency Plan, and oversight of annual reporting information on the mine status and intent to resume operations as soon as possible.
2015-01-05 AANDC Cvr Ltr #1 (continued)	See above	See above	<p>Finally, the NWB issued the PHC decision on Dec 1, 2014 and included in Appendix D was a list of commitments/follow up items recorded by the NWB during the TM-PHC. LMI has submitted all the required information to the NWB as per the PHC decision commitment list.</p> <p>There has been some confusion in regards to submittal dates. AANDC has stated that LMI did not meet the November 28, 2014 submittal date as per the PHC decision commitment list. The PHC decision was issued on December 1, 2014 but there was a deadline for LMI of November 28, 2014 for the Landfarm Management Plan and the Interim Abandonment and Reclamation Plan (IARP) Errata. During the TMPHC all parties were advised that the PHC decision would be issued with deadlines approximately 10-12 days after the TM-PHC, which was held on October 22-23, 2014. Due to some changes at NWB it is understandable that the timeline was pushed out. LMI did contact the NWB on December 2 (email), December 3 (telephone call) to discuss that the deadline that was set had already passed when they issued the PHC decision and that LMI would have the items submitted to NWB promptly by December 5, 2014. LMI also sent an email on December 4, 2014 to confirm the conversation and restated the submission of the Landfarm Management Plan and IARP Errata on December 5, 2014. LMI was advised verbally by the NWB that December 5, 2014 would still be in keeping with the timeline for the public hearing to be held in February. On December 5, 2014, LMI submitted the landfarm Management Plan, the IARP Errata and fuel inventory for the main tank farm (the commitment list generated from the TMPHC, as issued as in the PHC decision, requested the fuel inventory for the on-site main tank farm, however LMI also submitted the fuel inventory for the satellite tank farm).</p>	See above	See above
2015-01-05 AANDC Cvr Ltr #2		• an updated reclamation cost estimate that addresses the deficiencies identified by AANDC at the Technical Meeting (revised estimate submitted on December 12, 2014); and	<p><b>It was only at the TM that AANDC first provided broad stroke information concerning their view of security.</b> The PHC decision commitments list stated that LMI will provide AANDC with additional detail explaining the basis for the reclaim estimate prior to public hearing. LMI initiated (on November 6, 2014) and scheduled a conference call to take place on November 17, 2014 with AANDC. On November 13, 2014 AANDC emailed to delay this call until November 24, 2014. The call ultimately took place on November 24, 2014. Based on the information provided at the TM and the follow up conference call with AANDC, LMI revised its cost estimate where it deemed necessary and submitted it to the NWB on December 12, 2014. LMI's revised cost estimate included an addendum to explain where either changes or clarifications were incorporated. However it must be clearly stated that <b>LMI were and still are in disagreement with several of the items identified by AANDC and do not consider the estimate to be in any way deficient.</b> This is explained in further detail within this response document.</p>	<p>AANDC submitted comments in our Technical Review (August 14, 2014) and again in the SENES memo (October 24, 2014), and the Final Review (January 5, 2015).</p> <p>LMI states that they are in disagreement with several of the items identified but have not provided any explanations or justifications for why there was disagreement and why the items were not addressed.</p>	As clearly stated by AANDC's consultant from SENSES, LMI's cost estimate was comprehensive and detailed and prepared by qualified engineers with relevant experience with northern projects, all of whom had visited site in 2014. Our disagreement with the AANDC security has always been that the AANDC estimate did not provide any supporting evidence to substantiate the estimate they have presented to the Board. As is clear from AANDC's evidence during the renewal hearings, it is now clear that AANDC simply used LMI's estimate and added factors without any substantial basis for these factors. This is not the basis of an engineered estimate and LMI remains in disagreement with many of the components of AANDC's estimate. Specific areas of significant disagreement are as follows. A first issue relates to estimates respecting fuel costs. LMI has provided evidence that the fuel at site is in good, useable condition. AANDC recently used Lupin fuel (in 2014) for a nearby reclamation project. While AANDC has asserted that the Mine Site Reclamation Policy (MSRP) states that new fuel must be brought to site, no specific reference was given for this assertion. LMI has reviewed the MSRP and does not believe any such statement exists within that policy. In any event, such a policy would be illogical where good fuel exists. LMI has committed to provide annual updates on fuel quantities available at site. If a substantial change to the fuel volumes were to occur, the reclamation security could be updated as needed by the NWB through the licence. A second issue is use of the RECLAIM model. AANDC incorrectly states that the RECLAIM computer model is the only acceptable approach to calculating closure costs. The RECLAIM computer model is a desktop approach best suited for projects at the conceptual, or early development stage. In the case of Lupin, the use of a computer model is not suitable for such a mature built site with very well known existing facilities, and where closure needs can be determined precisely by qualified contractors during site visits. LMI also notes that RECLAIM is not the preferred approach used by Regional Inuit Associations, including KIA and QIA. A desktop study approach carried out in the absence of existing site knowledge, as is the case with AANDC's estimator, cannot supercede the real costs provided by third party engineers and contractors that spent time at the mine for the specific purpose of calculating closure costs. LMI appreciates that AANDC has uncertainty with respect to their closure cost details because their estimator does not have first hand knowledge of the existing site. However that uncertainty is theirs alone, and does not justify AANDC's excessive cost inflations or 25% contingency value, which are typically used for pre-development stage cost estimating. In summary, LMI believes a specific estimate which includes site visits by engineers and contractors to gauge work scopes, determine costs and precisely what those costs cover should be preferred over a theoretical desktop exercise with clearly inflated, unsubstantiated reclamation estimates.

TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
2015-01-05 AANDC Cvr Ltr #3		<ul style="list-style-type: none"><li>outstanding information requested by AANDC throughout the application process (some information submitted on December 5, 2014).</li></ul>	<b>This comment from AANDC is unclear as AANDC has not clearly stated what information has been requested and not provided.</b> LMI has been diligent in responding to all information requested by AANDC and others throughout the application process. Where the information requested is not available at this time, LMI has provided rationale to AANDC.	AANDC requested information in our Technical Review, the TM-PHC presentation, in our December 4, 2014 letter to NWB, and in our final submission.	LMI notes that AANDC has not idenfied any specific instances where there is outstanding information, and so LMI concludes that it has satisfied all AANDC information requests.
2015-01-05 AANDC Cvr Ltr #4		While a list of commitments was provided by LMI on October 31, 2014, the list appears to be incomplete and does not document all commitments made by LMI since the start of the application process.	The list of commitments provided by LMI on October 30, 2014 (AANDC has an incorrect date) is up to date and complete. <b>Any additional commitments requested by AANDC which were not carried forward have been clarified in the same submission.</b>	AANDC notes that commitments were removed from our list to generate their own list. While there is agreement with the ones carried over into LMI's list, there is no agreement with the ones that were deleted. Our list should have been left as is and clarification should have been provided in the same document.	LMI's commitments address key issues related to water and waste disposal. LMI has addressed all of AANDC's requested commitments. As noted above, it is improper to characterize AANDC requests which have not been agreed to by LMI as "LMI commitments".
2015-01-05 AANDC Cvr Ltr #5		<p>LMI did not meet the deadline of November 28, 2014, to submit outstanding information but they did submit information on December 5, 2014, to satisfy some of their commitments including:</p> <ul style="list-style-type: none"><li>Fuel inventory;</li><li>Errata to Interim Abandonment and Restoration Plan (IARP); and</li><li>Landfarm Management Plan.</li></ul> <p>AANDC has reviewed the above documents and offers comments and recommendations in Sections 1.1-1.3 of the enclosed submission for the Board's consideration.</p> <p>LMI submitted a revised reclamation cost estimate on December 12, 2014, which was distributed by the NWB on December 17, 2014. Preliminary comments and recommendations are offered in Section 1.4 and Appendix 1 of the enclosed submission for the Board's consideration.</p>	<p>As stated earlier, there has been some confusion in regards to the submittal dates. AANDC has stated several times that LMI did not meet the November 28, 2014 submittal date as per the PHC decision commitment list. The PHC decision was only issued on December 1, 2014 but there was a deadline for LMI of November 28, 2014 for the Landfarm Management Plan and the IARP Errata included in the decision. At the TM-PHC all parties were advised that the PHC decision would be issued with deadlines approximately 10-12 days after the TM-PHC, which was held on October 22-23, 2014. LMI respected the NWB decision process and was awaiting the PHC decision, and LMI did inquire on the status of the decision. Due to some changes at NWB it is understandable that the decision timeline was pushed out. <b>It seems unreasonable to expect that LMI would be able to meet a deadline when they are advised of the deadline after said date.</b> LMI contacted the NWB on December 2 (email), December 3 (telephone call) to address the deadline issue and to advise that LMI would have the items promptly submitted within three days to the NWB by December 5, 2014. LMI also sent an email on December 4, 2014 to restate the submission date and advise that LMI would submit the Landfarm Management Plan and IARP Errata on December 5, 2014. LMI was advised verbally by the NWB that December 5, 2014 would still be in keeping with the timeline for the public hearing to be held in February.</p>	<p>AANDC agrees that it is unreasonable to expect LMI to meet the deadline if they were not advised in advance of the December 1, 2014 letter from the NWB. However, AANDC notes that submitting information on December 12, 2014 did not allow much time for a review of the reclamation estimate.</p> <p>AANDC notes that a revised estimate was requested at the TM-PHC in October 2014 and a list of our specific concerns was provided on October 24, 2014, so it is unclear why it could not be provided until December 12, 2015.</p>	<p>LMI appreciates that AANDC acknowledges LMI's timely submission of information. Regarding the revised cost estimate provided AANDC with the initial cost estimate on October 18, 2014. LMI provided additional clarification to AANDC during the teleconference of November 24, 2014 and a revised cost estimate was submitted on December 12, 2014. In the PHC decision there was no prescribed date for the submission of the revised estimate. LMI provided the revised estimate as soon as possible as a courtesy to AANDC, which contained an supplemental write up clearly addressing each of AANDC's line items.</p>
2015-01-05 AANDC Cvr Ltr #5 (cont)	See above	<p>While LMI has provided some of the information committed, there are several issues that remain outstanding. Please refer to Section 2.0 of the attached report for outstanding issues and find enclosed the updated status of issues following the TM-PHC (originally submitted in our December 4, 2014, letter and later revised on December 16, 2014, following LMI's submissions) in Appendix 2.</p> <p>Despite our statements made at the TM-PHC, the failure of LMI to meet the deadline set by the NWB for submissions, and our December 4, 2014, letter to the NWB recommending that the process not proceed further and that the timeline not be fixed until the information is received by the Board and distributed to interested parties for review, parties are required to file final written submissions with the NWB on January 4, 2015, and the Public Hearing is scheduled for the week of February 2-7, 2015.</p>	On December 5, 2014, LMI submitted the Landfarm Management Plan, the IARP Errata and fuel inventory for the main tank farm (the commitment list generated from the TM-PHC, as set out in the PHC decision, only requested the fuel inventory for the on-site main tank farm only but LMI also submitted the fuel inventory for the satellite tank farm for completeness).	See above	LMI appreciates that AANDC acknowledges LMI's timely submission of information.



TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
2015-01-05 AANDC Cvr Ltr #6		Given the delays already experienced on this file and lack of timely and complete provision of information by LMI, AANDC is concerned that the Board may be faced with making determinations on incomplete information at the Public Hearing. LMI has proven unreliable at providing requested information, and as such, simply including conditions in the licence requiring the provision of the information within specified timelines is unlikely to be effective.	LMI, as clarified above, submitted the Landfarm Management Plan and IARP Errata on December 5, 2014 promptly following the PHC decision. <b>LMI has not “been proven to be unreliable at providing requested information” and there is no such evidence of this occurrence.</b> In fact LMI submit that it has been diligent in this regard.	<p>There are a number of instances where LMI did not provide requested information by a timeline set by an AANDC Inspector and committed by LMI themselves. For example, LMI committed to provide:</p> <ul style="list-style-type: none"><li>- Study of windblown tailings by the end of August as well as November 2014.</li><li>- Addendum to Environmental Site Assessment in 2013</li><li>- Fuel inventory in 2013 (SCP)</li><li>- Landfarm Management Plan in November 2014</li><li>- Erratum to IARP in November 2014</li></ul> <p>LMI is considered to be non-compliant in 21 out of 50 'operational' terms and conditions (not counting sub-sections) of their existing water licence. AANDC asserts thus that LMI has a history of not meeting licence conditions, not responding to Inspector's direct actions, and not providing information as committed by LMI.</p>	<p>LMI strongly disagrees with the compliance characterization presented by AANDC. LMI respectfully submits that it is materially compliant with the licence conditions. LMI has responded to the AANDC compliance table of November 27, 2015 (enclosed) in detail but it is noted that the Inspector has quite improperly identified a number of items as "non-compliant" for the reasons stated by LMI in the table. As noted during the hearing, LMI has requested that the Board reconsider certain weekly and monthly monitoring requirements during the care and maintenance phase, as they are not necessary in order to ensure compliance with the Act given the current level of activity on site. LMI regards any requirement to maintain a year round human presence at site to be unacceptable from a worker health and safety perspective, and as demonstrated at numerous sites throughout the north as well as the care and maintenance monitoring proposed by LMI, continuous site presence is not necessary in order to ensure protection of water resources. LMI notes that AANDC has agreed that information was provided by LMI in a timely manner following issuance of the PHC decision. It was clearly stated during the public hearing that LMI did submit the fuel inventory in 2013, and that the LFMP and erratum to IARP were submitted on time as per the extension from the NWB (as explained above). It is noted that in its response, AANDC is identifying a number of items which are not included in the Water Licence nor required under the Nunavut Waters and Nunavut Surface Rights Tribunal Act. These items have been requested by the Inspector, but have not be the subject of any direction issued by the Inspector. As an example, an ESA addendum has been requested by the Inspector. It is unclear why this item has been requested by the Inspector at this time. Neither the Inspector nor AANDC has provided any technical rationale or noted any potential deficiencies in the existing ESA for LMI to respond to. LMI has provided evidence to the Board during the hearings that the 2006 ESA remains valid as the mine has been in care and maintenance since it was undertaken. It would be unreasonable and waste of resources to carry out a new ESA in this regard at this time given the minimal risk of spills during the care and maintenance phase (it is noted that a historic spill was discovered, and remediation of the impacted area will be completed and reported on to the Inspector during 2015). LMI agrees that it would be appropriate to update the current ESA should the project be brought into a final closure phase. Regarding the concern on the potential for windblown tailings, it is LMI's view that the Inspector and AANDC have not presented reasonable evidence that tailings have been blown from the TCA. Once the Inspector alerted LMI to her concern, LMI carried out a visual inspection of the surrounding TCA area with an external tailings expert and the distinctive oxidised Lupin tailings were not observed. AANDC's own sample from the area (taken by the AANDC Inspector) was reviewed by SRK and determined to be consistent with background and not indicative of tailings. LMI provided photographs during the hearings showing the distinct colouring of Lupin tailings and aerial photographs that in LMI's view, showed the area of concern is esker material and not wind blown tailings. LMI noted that the tailings remain saturated in a low lying area and are therefore not susceptible to wind erosion. This was also noted in the decision for the 2009 licence renewal. While LMI has provided ample evidence that there is no wind blown tailings, to cooperate with AANDC LMI has committed to take additional samples below Dam 6 in 2015 (See commitment #1). AANDC initially requested a risk assessment and LMI did provide a risk assessment of the TCA in March 2013, as verified by the inspector at the public hearing.</p>
2015-01-05 AANDC Cvr Ltr #7		While it remains important to capture all the outstanding information in enforceable licence conditions, unless the information is provided prior to licence issuance, AANDC recommends that the uncertainties arising from the lack of information be factored into the reclamation security required and let LMI apply to reduce the security in the future as new information becomes available. This may provide the required incentive to LMI to meet the licensing and information requirements.	LMI does not agree that AANDC can make a statement that there is a lack of information to complete a valid security estimate. Over several years the previous owners completed several engineering and environmental studies that have been used to complete the estimate and it should be emphasised that nothing has occurred at site since these studies were completed that would render them invalid. Hard data and costs have also been used such as the actual cost to provide the final esker cover on the tailings based on previous work at site. Furthermore for this most recent estimate LMI had a Northern contractor, who was actually working on reclamation sites in 2014, relatively close to the Lupin Mine on Contwoyto Lake to review the work, and assist in compiling the submitted estimate. Unit rates and quantities as applied in the estimate were provided by this contractor including the use of third party 2014 quotations.		
2015-01-05 AANDC Cvr Ltr #7 (cont)	See above	See above	...LMI also employed environmental and engineering consultants experienced in site reclamation to visit site review data and provide input and review to the process. Therefore LMI are very confident in this estimate. We also benchmarked it against recent approved security estimates in Nunavut and this estimate benchmarks very well with those recently approved by NWB, as well as previous estimates for the Lupin site.	See above	Answered above
1	Review of New Information Submitted In December 2014	<p>The Pre-Hearing Conference Decision was distributed to parties on December 1, 2014. LMI was required to submit information prior to the Public Hearing including the following:</p> <ul style="list-style-type: none"><li>• Landfarm management plan;</li><li>• Interim Abandonment and Reclamation Plan (IARP);</li><li>• Fuel inventory; and</li><li>• Additional detail regarding the reclamation estimate.</li></ul> <p>While the first two documents were due on November 28, 2014, the last two were due prior to the Public Hearing. The fuel inventory, landfarm management plan, and the erratum to the IARP were distributed by the Board for review on December 5, 2014. AANDC reviewed these documents and provides comments and recommendations below.</p>	N/A		

TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
1 (cont)	See above	The revised reclamation estimate was submitted by LMI on December 12, 2014 and distributed by the Board for review by interested parties on December 17, 2014. A preliminary review of the revised reclamation estimate was completed by SENES and a summary of this review is found below, with more detailed comments available in the attached memorandum in Appendix 1. Further comments and recommendations regarding the reclamation estimate may be submitted under a separate cover to the Board for consideration.	See above	See above	Answered above.
1.1	Fuel Inventory	<p>Background</p> <p>AANDC requested information regarding the quantity and quality of fuel on site since the onset of the application process. LMI stated that all fuel on site is useable and is of good quality and committed to providing an updated inventory of fuel on site. LMI submitted a Fuel Dips Calculation Sheet done on August 23, 2014 which was distributed by the Board on December 5, 2014 for review by interested parties. While this submission provides sufficient information regarding the quantity of fuel stored within fuel tanks, the quantity of fuel stored within other storage vessels (i.e., drums) remains unknown.</p>	In response to commitment Number 13 in Appendix D of the PHC decision - LMI submitted the requested information on December 5, 2014. In the PHC decision issued on December 1, 2014 it stated that LMI will provide a current inventory of fuel in the on-site main tank farm. LMI also submitted the fuel inventory for the satellite tank farm in addition to what was required by NWB. There was no specific request for “vessels” and this is a completely new request that was not even discussed at the TM-PHC. It is quite obvious that at this late stage with snow cover, that it would be impossible for LMI to provide this information prior to the February hearing and AANDC would be very aware of this fact. However it should be stated that our estimate of fuel in “vessels” would be less than 0.1% of the total inventory and that if there are any of these barrels with fuel that they would either be within the fuel berms or within the mine maintenance building. LMI will also commit to updating storage in other vessels (ie. drums) during the 2015 season. In AANDC’s submission on August 14, 2014 (please note there was no mention of the fuel inventory in their submission of June 9, 2014, as stated above) they requested that a renewed licence require the annual reporting of the quantity and quality of the fuel in each tank at site (nowhere in the document does it request such information for vessels).	<p><b>Addressed</b></p> <p>The 2014 Spill Contingency Plan indicates that an inventory will be done in 2013 as required under Schedule H, Item 1g of the Type A licence. This was never fulfilled. LMI did provide an inventory of fuel stored in tanks in December 2014. AANDC recommends that this information s included in the next iteration of the plan as committed 90 days following licence approval.</p> <p>AANDC requested an inventory of hazardous waste (No. 4) and the quantity and quality of fuel on site in our Technical Review (No. 7) and while we mistakenly used the word 'tanks' in our recommendation (we did not intend to limit our recommendation to only tanks), we did express concern that the quantity of fuel on site was unknown. Also, on July 22, 2014, AANDC did send an email to Mr. Downey requesting "a total fuel inventory...of what is in all tanks (and drums) as well as their contentcs..." and no response was received.</p> <p><b>AANDC requests that the licence reflect the commitments made by LMI to provide complete inventories of fuel on site in 2015 and to provide annual updates to inventory of fuel in annual reports.</b></p>	LMI appreciates AANDC's confirmation that this issue has been fully addressed. LMI clarified at the hearing that this was an oversight on the part of AANDC. LMI has further agreed to provide annual updates to inventory of fuel in annual reports.
1.1 (cont)	See above	<p>Recommendation</p> <p>AANDC recommends that the quantity of all fuel on site, including fuel stored in other vessels, is provided prior to the Public Hearing (i.e. number of vessels including drums). If the total amount of fuel remains unknown following the Public Hearing, the precautionary approach should be used to assume the highest reclamation liability on site when setting the financial security (i.e. assume all vessels are full).</p>	AANDC has only now, in its final submission of January 5, 2015, requested the fuel stored in other ‘vessels’ to be submitted prior to the public hearing and it is not possible to complete this task prior to the hearing. In regards to the main fuel at site LMI has already advised AANDC that the fuel has been tested and that it is usable. LMI currently uses the fuel at site. LMI does not agree that the quality of fuel be required as a water licence annual reporting requirement.	See above	LMI clarified at the hearing that this was an oversight on the part of AANDC. LMI has further agreed to provide annual updates to inventory of fuel in annual reports. Also addressed by LMI at the hearing, noting less than 2000L of fuel currently stored in drums. AANDC agreed at the hearing that this is not an issue.
1.2 (a)	Landfarm Management Plan	The Interim Abandonment and Restoration Plan (IARP) states that contaminated soil will be remediated on site. However, in their response to the AANDC Completeness Review, LMI clarified that they will continue to backhaul contaminated soil during care and maintenance. LMI committed to submitting a Landfarm Management Plan in November 2014 but it was not received before the TM-PHC. LMI submitted the plan to the Board and it was distributed to parties on December 5, 2014.	<p>LMI is seeking authorization from the NWB to operate a landfarm facility on site for the remediation of a limited quantity of petroleum hydrocarbon contaminated soil during the care and maintenance and operating stages of the mine. <b>During the current care and maintenance phase, small quantities of hydrocarbon impacted soil recovered from inside the fuel containment areas during facility maintenance are backhauled for treatment at an approved facility in Yellowknife. The impacted soil is removed from the facilities so that contact water (snow melt and rainfall) does not become contaminated. As stated in the LMI’s October 10, 2014 submission to the NWB, until such time as the landfarm facility is available to receive and treat the soil LMI will continue to recover hydrocarbon impacted soil from within the facilities and backhaul this soil, as flights are available, for treatment at an approved facility.</b></p> <p>The IARP states that fuel laden sand will be treated on-site. Options put forward include treatment by volatilization and bioremediation (i.e. landfarming) or burial (i.e. consolidate and cover, underground disposal). The operation of a landfarm prior to the development and implementation of the Final Abandonment and Restoration Plan will inform LMI as to the preferred option or combination thereof.</p> <p>Please see above in regards to the submittal date of the landfarm management plan of December 5, 2014.</p>	<p><b>Addressed</b></p> <p>AANDC agrees that a landfarm during care and maintenance will allow for progressive reclamation of contaminated soil.</p> <p>Information was provided to supplement the landfarm management plan. An update is required to provide more detail and include new information (i.e., schedule for turning soil during periods of inactivity vs. activity on site and the measures proposed to accelerate the remediation process, etc.). <b>AANDC recommends that the licence include a requirement to update the plan 90 days prior to construction of a landfarm.</b></p> <p>LMI commits to confirming that the objectives are consistent with those outlined in territorial legislation and guidelines in addition to CCME guidelines.</p> <p>The IARP needs to be updated to include the bolded information in LMI's response.</p>	The LMP as submitted December 5, 2014 contains more than adequate detail to support the establishment of a landfarm on an existing pad at the mine. The details requested by AANDC are operational considerations that are adjusted as needed in the field depending on seasonal operating conditions. Should the NWB require an update to the plan for approval , it will not be possible to advance the landfarm in 2015. LMI will provide a construction summary report for the landfarm within 90 days of its establishment.

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1.2 (b)	Landfarm Management Plan	AANDC reviewed the plan and notes that it may be sufficient as a preliminary plan, however, a final plan containing more detailed information is required prior to construction of a landfarm.	As per number 6 of the PHC decision from the NWB of December 1, 2014 LMI was requested to submit a simplified Landfarm Management Plan. The Landfarm Management Plan (December 2014) submitted by LMI was developed based on the NWB requirements outlined in their Industrial Supplemental Information Guideline for Hydrocarbon Impacted Soil Storage and Landfarm Treatment Facilities. AANDC’s consultant SENES state “The plan is preliminary in nature and we have no material concerns.” LMI anticipates that the NWB will require a Construction Summary Report to be prepared by a qualified engineer. However the plan is sufficiently detailed with respect to landfarm operations and LMI request that the NWB not delay approval of the current plan or the ability to proceed.	See above.  While we would not object to the approval of a preliminary plan, an updated plan should be provided prior to construction of a landfarm	The LMP as submitted December 5, 2014 contains more than adequate detail to support the establishment of a landfarm on an existing pad at the mine. The details requested by AANDC are operational considerations that are adjusted as needed in the field depending on seasonal operating conditions. LMI will provide a construction summary report for the landfarm within 90 days of its establishment. LMI would provided an updated LMP in the event the facility is expanded in the future.
1.2 (c)	Landfarm Management Plan	The following comments are offered for the Board’s consideration:  • Although, section 6 provides general landfarm operating procedures (page 10), more detail is required in a final plan prior to its construction.	As stated above, LMI were requested to submit a simplified Landfarm Management Plan. The Landfarm Management Plan (December 2014) was developed based on the NWB requirements outlined in their Industrial Supplemental Information Guideline for Hydrocarbon Impacted Soil Storage and Landfarm Treatment Facilities. The purpose of the management plan is to provide sufficient detail for regulatory approval to ensure objectives can be met, which is achieved by the plan. The internal operating procedures that flow from management plans are sufficiently detailed to allow for an environmental technician with contaminated soil assessment experience to supervise the excavation and loading of the landfarm facility and to initiate soil treatment activities.	ok	LMI acknowledges AANDC agreement to approve the LMP submitted December 5, 2014. LMI will provide a construction summary report for landfarm within 90 days of its establishment.
1.2 (d)	Landfarm Management Plan	• The depth of soil to be treated is 1.5 m (0.3 m during periods of inactivity). Usually, a depth of 30 to 45 cm is recommended as thicker soils require more tilling for aeration of contaminated soil.	It is laid out in the Landfarm Management Plan that the soil treatment depth will be reduced to 0.3 m during periods of inactivity. In order to effectively achieve this, a stockpile may be required at one end of the facility in order that a smaller portion of the soil in the facility may be remediated during a season. Any stockpile created on the facility will be restricted to a height of 3.0 m. The attenuation of hydrocarbon concentrations will occur in soil that is spread thin enough without the soil being turned or otherwise aerated.	ok	LMI acknowledges AANDC’s agreement.
1.2 (e)	Landfarm Management Plan	• The size of the landfarm may be too small for the remediation of contaminated soil at closure. It may address future contamination but it is unlikely that it will address the current inventory of contaminated soil (refer to Appendix 1 for further comments).	LMI concurs with AANDC’s assessment. However the landfarm is not intended to remediate all future volumes of material. it should be noted that the IARP states that options for the treatment of fuel laden sand include treatment by volatilization and bioremediation (i.e. landfarming) or burial (i.e. consolidate and cover, underground disposal) upon final closure.	ok	LMI acknowledges AANDC’s agreement.
1.2 (f)	Landfarm Management Plan	• It is unclear how often the contaminated soil will be turned during periods of activity (biweekly?) and inactivity (annually?). Detailed operational procedures during periods of activity vs. inactivity are required in a final plan.	LMI submits the following schedule  <b>During periods of inactivity on site the soil in the treatment facility with be turned and sampled once in June or July and then again in August or September.</b>  <b>During times when there is activity on site (i.e. exploration, tailings discharge) the soil will be turned no more than every three or four days during warm dry periods.</b>	LMI provided a schedule as requested. The plan needs to be updated to include this schedule (bolded).	It would not be effective from an operational perspect to tie this activity to a specific schedule, as in order for the facility to properly function this decision must be left to the field. This is an operational consideration to made in the field. The LMP provides sufficient detail on how the landfarm will operate.
1.2 (g)	Landfarm Management Plan	• Regular turning of the soil will only take place during years when a discharge from the TCA is planned (page 10). While the depth will be reduced to increase the surface area, it may only be aerated once a year for up to 2-3 years, which could potentially affect the time required for proper remediation.	LMI’s plan for periods of inactivity will require that soil not stockpiled in the facility be turned at the start and the end of the season. The rate of remediation will vary as a result of the quantity of soil being treated, the quality of the soil being treated and <b>the measures undertaken to accelerate the remediation process.</b>	The plan should to include measures LMI proposes to accelerate the remediation process.	This is an operational consideration to be made in the field. It is in LMI’s interest to accelerate remediation. Various options exisit depending on conditions in the field and are subject to field management decisions. [It should be noted that it is in LMI’s best interest to ensure that this landfarm operates as designed which will then provide the opportunity for LMI to remediate other potential areas in the future.
1.2 (h)	Landfarm Management Plan	• Moisture management will require regular monitoring of the landfarm to maintain soil moisture (page 10). It is noted that increased soil mixing may be required to promote evaporation and that water may be required to increase soil moisture.	Soil moisture monitoring will optimize remediation of the soil in the facility. During the care and maintenance and operating period of the mine it is proposed that soil moisture data be recorded in order to maximize the efficiency of the process at the end of mine life. “Regular” monitoring is not required to operate the facility; however the application of additional water during long dry periods may accelerate the remediation rate.	ok	LMI acknowledges AANDC’s agreement.

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1.2 (i)	Landfarm Management Plan	<ul style="list-style-type: none"><li>• Soil quality remediation objectives are provided in Table 1 (page 11). It is recommended that the Government of Nunavut Department of Environment is consulted to ensure that these objectives are consistent with those outlined in territorial legislation and guidelines in addition to the CCME guidelines used to derive the remediation objectives outlined in this plan.</li></ul>	LMI anticipates that results confirming soil quality remediation objective have been met will need to be submitted to the Inspector prior to the final disposal of remediated soil. It is anticipated that the notice will include a total metal analysis, pH and F1 to F4 concentrations. <b>LMI will consult with the GN DoE to confirm these objectives are consistent with those outlined in territorial legislation and guidelines in addition to CCME guidelines, as suggested by AANDC.</b>	AANDC notes LMI's commitment in bold	Agreed.
1.2 (j)	Landfarm Management Plan	Recommendation AANDC recommends that a) landfarm construction is only considered during mine operations due to the limited presence on site during care and maintenance; b) the licence require a final Landfarm Management Plan a minimum of 90 days prior to construction of a landfarm; c) that interested parties are provided an opportunity to comment on the final Landfarm Management Plan; and d) construction of a landfarm not occur until the plan is approved, in writing, by the Board.	It is important to have the ability to construct the landfarm during the current care and maintenance phase. This will allow for the progressive reclamation of petroleum hydrocarbon contaminated soil that is currently present outside of the fuel containment facility. LMI would utilize the increased presence of manpower on site during the 2015 season (as required in order to treat and discharge water from Pond 2 of the TCA). The purpose of the management plan is to provide sufficient detail for regulatory approval and demonstrate that objectives can be met, which is achieved by the plan. LMI anticipates that the NWB will require a Construction Summary Report to be prepared by a qualified engineer. However the plan is sufficiently detailed with respect to landfarm operations and LMI request that the NWB not delay approval of the current plan or the ability to proceed.	AANDC agrees that a landfarm during care and maintenance will allow for progressive reclamation of contaminated soil.	LMI acknowledges AANDC's agreement.
1.3	Errata for Interim Abandonment and Restoration Plan	Background AANDC identified a number of deficiencies in the Interim Abandonment and Restoration Plan (IARP) and requested information in the Completeness Review. LMI provided responses to the information requests on October 10, 2014. AANDC requested an updated IARP and LMI originally committed to submitting an updated plan prior to the Public Hearing. This commitment was later reduced to LMI providing an erratum to the IARP to correct any errors by November 2014 and a subsequent revision of the IARP to incorporate the corrections post licence issuance. In the TM-PHC Decision, LMI was required to provide an erratum to the IARP by November 28, 2014 but this was not distributed for review until December 5, 2014.  AANDC reviewed the erratum to the IARP submitted by LMI and it appears to address much of the confusion as detailed in the response to the technical review.	LMI agrees with the 90-day submission timeframe reflected at (a) as well as (b) and (c). However, LMI notes that the IARP has been on file with the NWB for a few years now and the approval of the next iteration, with the minimal changes noted in the errata, are not substantive and should not be a condition of recommencing of operations as suggested at (d).  For clarification on the procedural background, LMI did not commit to providing an updated IARP prior to the public hearing. This is a misleading statement. LMI committed to updating its plans if necessary with the next set of edits. LMI completes edits as required during the annual report process. LMI only committed to the errata prior to the public hearing as stated during the October 16, 2014 conference call and during the TM-PHC. During the TM-PHC it was agreed that any management plans that required updating would begin based on input received during the review process and direction to be provided by the NWB upon receipt of the renewed water licence, and then submitted to the NWB based on the timeline to be provided in the renewed water licence. AANDC states the same thing under 11 (b) in their Status of Issues submitted on January 5, 2015.  LMI objects to the inclusion of the suggested language at (e) as it unnecessarily fetters the discretion of the Board in determining financial security.	<b>Parts a-c are considered addressed.</b>  <b>Parts d and e remain outstanding.</b>  AANDC recommends that the IARP is updated as part of the notification to resume operations (part d). Approval of the updated plan is recommended prior to commencing mining operations to ensure that sufficient information is provided prior to a significant increase to the level of activity on site.  There remains uncertainty about the performance of the cover, the quantity of contaminated soils, the quantity of acidic waste rock, etc. As such, a precautionary approach is recommended where there is uncertainty (part e). The estimate submitted in our final submission applies the precautionary approach by increasing the contingency from 10% to 25% to account for uncertainties.	Regarding the IARP, LMI is of the understanding that it is to be updated 90 days following issuance of the licence renewal based on the errata provided during the renewal process (Submitted by LMI December 5, 2014). The IARP would only be updated thereafter in the event closure techniques are modified. LMI acknowledges that a final closure plan is required prior to final closure (aside from the TCA which already has a final closure plan on file and the majority of the TCA has been closed in accordance with said plan). Regarding the cover performance, the design has been validated by monitoring data since 1988. The system is operating as planned and only requires minimal management for pH while cells 3 and 5 remain uncovered pending a return to operations. With respect to matters raised by SENES regarding acid generation under saturated conditions. Once the two remaining tailings areas are covered there will no longer be a need to treat effluent. It is also important to note that background natural pH of the area is generally 5.5, which is below the water licence limit. Regarding the quantities of contaminated soil, the 2006 ESA was carried out by leading experts and remains valid. The report calculated conservative volumes of soil. Regarding the quantity of PAG rock, LMI has conservatively assumed that the max volume of material (40%) would be addressed at closure in accordance with the Morrow report. LMI closure estimate is based on scientifically defensible reports and site visits by contractors, and therefore the added costs and contingencies suggested by AANDC are not warranted. It should be noted the quantities of contaminated soil and acid waste rock were estimated by competent engineers and have not changed in any of the estimated reclamations to date. With respect to (e), LMI believes it has taken a precautionary approach in its evidence-based approach to calculation of the reclamation estimate.

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1.4	Revised Reclamation Cost Estimate	<p>Background</p> <p>A revised reclamation cost estimate was submitted by LMI on December 12, 2014 and distributed to interested parties on December 17, 2014. While preliminary comments in regards to the reclamation cost estimate are attached (see SENES memorandum in Appendix 1), further comments regarding the reclamation cost estimate may be submitted to the Board once a more thorough review of the estimate has been completed.</p> <p>SENES completed a preliminary review of LMI's December 2014 estimate and while some deficiencies identified in the October 19, 2014 memo (provided to LMI on October 24, 2014) were addressed (and some only partially addressed), a number of deficiencies still remain. The revised estimate by SENES suggests the reclamation cost will be considerably higher than that estimated by LMI. As shown on the Table 1 of Appendix 1, LMI's estimated cost is \$24.1 million while the SENES estimate is \$43.5 million.</p>	<p><b>There is no outstanding information to be provided, and AANDC has not provided any rationale which supports the increase.</b> As stated in AANDC comment 1.3 above, it appears the erratum addressed AANDC's outstanding concerns. Following a teleconference with AANDC on November 24, 2014 to discuss security details, LMI submitted its final cost estimate on December 12, 2014. LMI has completed a very comprehensive cost estimate based on costs developed and reviewed by an experienced contractor with very recent experience work in the Contwoyto Lake area and who have been to the Lupin site to review the work, develop the rates and determine timelines to complete the work. This estimate is based on actual quantity estimates from site and reviews by third party contractors and engineers experienced in the North who have been to the Lupin site on a number of occasions. Conditions on this site have changed very little since it went into Care and Maintenance in 2006. In fact work has been completed on removal of waste, removal of buried pipelines and the placement of material within the crown pillar openings that would reduce work to be completed for final closure. LMI also installed a lime mixing and distribution system at the TCA to treat any water prior to discharge to the environment.</p>	<p><b>Outstanding</b></p> <p>AANDC provided rationale to support an increase in Appendix 1 of our Technical Review, at the Technical Meeting, in the December 19, 2014 SENES Memo, and in Appendix 1 of our Final Submission. In the latter, a memo was provided outlining the rationale to support the increases and a RECLAIM estimate using available information was included in Appendix A.</p> <p>The revised estimate is an improvement over the 2012 estimate. However, LMI's estimate is not consistent with the RECLAIM model. <b>There remains a number of items that are deficient and there are costs that we believe are inadequate to complete the work.</b> A list of these deficiencies will de described in the presentation.</p> <p><b>AANDC recommends that the financial security is increased to cover the highest reclamation liability on site and, if information is not made available, that it accounts for the uncertainty and is adjusted accordingly.</b></p>	<p>Answered above, it should also be noted that AANDC's consultant clearly stated at the public hearing that LMI's cost estimate was professional and thorough. All information was made available and was based on engineering estimates and specified quantities. It is important to note that the main mine facility, the TCA, is already in an advanced stage of closure in accordance with the final TCA closure plan. The remaining closure activities at site are known and straight forward (building demolition, backhaul, underground disposal etc). LMI has clarified that it is not seeking a reduction in security even though LMI's estimate is \$1.4 million below the amount currently held by AANDC. With security remaining at \$25.5 million, there is a 19% contingency allowance, which is considerable for a mature site with known closure needs. LMI submits that in this case, the amount of security is already beyond the highest reclamation costs that would be required if the work were carried out by a reputable third party. While noted in the hearing by AANDC that things generally cost more when carried out by government, LMI should not be responsible for inefficiency. AANDC did not provide a list of deficiencies in their presentation they just added contingencies to LMI'S estimated numbers and based these on the fact that they just didn't know as they had NOT been to site. As stated by AANDC the main difference was the treatment of fuel at site which we have clearly demonstrated above can (and should) be included in the cost estimate. Again we should mention the Mine Site REclamation Report that is also silent on this.</p>
1.4 (cont)	See above	<p>Recommendation</p> <p>AANDC recommends that the reclamation liability for the closure plan be increased to at least \$43.5 million. There remains substantial uncertainty in the reclamation estimate and these costs could increase further.</p> <p>AANDC further recommends that a) LMI be required to provide all outstanding information regarding the reclamation estimate prior to the Public Hearing (AANDC requests that this information be provided on or before January 14, 2015 to allow sufficient time for parties to review the new information prior to the Public Hearing); and b) where information is incomplete at the Public Hearing, the precautionary principle be used by the Board when making a determination regarding financial security.</p>	<p>The system will be used during care and maintenance; operations; and final closure, which will reduce closure costs. In summary, this estimate was completed by companies and consultants with the relevant experience, based on site visits and studies compiled as part of the closure planning process and it has been benchmarked against other recent estimates approved by the NWB, and generally consistent with previous estimates for the Lupin mine.</p>	<p>See above</p>	<p>Answered above.</p>
2	Outstanding Issues	<p>AANDC reviewed the renewal application and submitted a completeness review including information requests on June 9, 2014 and a technical review on August 14, 2014, as requested by the Board. AANDC presented outstanding issues at the Technical Meeting and provided details in writing regarding the status of each issue following the TM-PHC in our December 4, 2014 response to the NWB's PHC Decision distributed on December 1, 2014.</p> <p>Since our latest submission on December 4, 2014, LMI has submitted additional information on December 5 and December 12, 2014. AANDC reviewed this new information and briefly summarizes some of the outstanding issues below and provides more details regarding the status of issues in an updated table (Appendix 2).</p>	<p>N/A</p>		<p>LMI has responded to all of AANDC's submissions including those reflected in this document by AANDC and also their final hearing submission provided on January 5, 2014, technical hearing presentation submitted two days prior to the hearing, and supplemental 55-page table submitted on the final day of the hearing. On numerous occassions, LMI has been accomodating of AANDC's late filing of late additional submissions and has responded appropriately.</p>



TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
2.1 (a)	Windblown Tailings	<p>Background</p> <p>LMI initially committed to submit an evaluation and action plan for windblown tailings by the end of August, 2014. In response to the July 15, 2014 inspection report, LMI stated that there are no uncovered or windblown tailings and that it is esker material. Windblown tailings have been an issue for many years and AANDC has requested that additional investigations be completed to assess whether or not windblown material is tailings and if so whether additional cleanup is warranted.</p>	<p>Windblown tailings were an issue at the site prior to the covering of significant portions of the tailings containment area. At the root of the issue raised by AANDC is whether or not the remaining uncovered portions of tailings in the tailings containment area (TCA) are causing the deposition of contaminated dust outside of the facility at concentrations that warrant the covering of the remaining exposed tailings prior to final closure of the mine. The original technical reason for the concern has been lost during recent emotional discussions with AANDC. To follow is a summary of recent communication on this topic.</p> <p>AANDC's request/recommendation in their completeness comments of June 9, 2014 stated they would request that the licence to specify a timeline for implementation of a cleanup plan for any areas affected by windblown tailings, and the progressive covering of all tailings, applicable even during care and maintenance. LMI responded on July 7, 2014 stating that that in June and July 2014, LMI would be undertaking an evaluation to address this concern. LMI intended to provide additional information to address AANDC's technical issue with respect to windblown tailings by the end of August 2014. However, LMI also noted that tailings at site are saturated and that the wind blow dust that may be emanating from esker cover over reclaimed areas of the TCA. LMI stated that they would take samples to assess the material and based on results a plan would be developed, if warranted. LMI did provide additional information to the Inspector on August 15, 2014 advising that photographs submitted by the Inspector do not illustrate windblown tailings, rather they illustrate esker material has been deposited adjacent to the TCA. LMI also had a consultant with many years of mine tailings experience visit the area identified by the Inspector. He concluded that the material is much different than the tailings deposited in the storage ponds in both grain size and chemistry. He stated that the Lupin Mines oxidized tailing was very distinct and easy to identify and that the area identified by the Inspector was not in fact tailings, but likely just an access road wash-out. LMI therefore advised AANDC that they did not believe that the endeavour to relocate small amounts of windblown esker from the tundra is practical, and doing so may well cause significant damage to the tundra. LMI also stated that they welcome discussions on this issue in terms of seeking a practical working solution.</p>	<p><b>Not Addressed</b></p> <p>The original concern still remains. Our original recommendation has evolved somewhat to address additional concerns that had surfaced during the application review process.</p> <p>While LMI intended to provide additional information by the end of August, it has not been provided. Rather they claim that the material deposited outside of the TCA is esker material without providing any evidence to support this claim.</p> <p>LMI has not yet demonstrated that the windblown material is not tailings. Neither data nor reports of any study were provided.</p> <p>AANDC would like to clarify that we are requesting a study because there is material present outside of the TCA and we need to determine whether the windblown material is tailings or esker sand, whether tailings are leaving the TCA, and whether the exposed tailings need to be covered or removed prior to closure. This is also required to fulfill the 2012 committment to the Inspector to update the ESA. Whether the material at Dam 6 is esker or tailings, it has been made known to AANDC and the Board that there was known historic tailings deposition outside the TCA. The extent of this has not been demonstrated.</p>	<p>LMI carried out a visual inspection of the sourrounding TCA area by a tailings expert and tailings were not observed. AANDC's own sample of supposed wind blown tailings was reviewed by SRK and determined to be consistent with background and not indicative of tailings. Exposed saturated tailings are over 750m away from the area noted by AANDC. LMI provided photographs showing the distinct colouring of tailings and aerial photographs that showed the area of concern is esker material and not wind blow tailings. LMI noted that the tailings remain saturated in a low lying area and are therefore not succeptible to wind erosion. This was also noted in the decision for the 2009 licence renewal. While LMI has provided ample evidence that there is no wind blown tailings, to cooperate with AANDC LMI has comitted to take additional samples below Dam 6 in 2015 (See commitment #1). The 2006 Morrow ESA remains valid as the mine has been in care and maintenance since the ESA was carried out. AANDC has not provided any technical comments on the ESA other than to question where background samples were taken, which is not reasonable considering there was no open air transport of ore that would lend to fugitive dust and Morrow are leading experts in the field of ESAs and certainly took representative background samples.</p>
2.1 (a) (cont)	See above	See above	<p>In the October 10, 2014 LMI Responses to Intervener's Submissions LMI reminds the reader that the potential for windblown tailings deposition outside of the tailings facility was mitigated by the placement of esker sand on the exposed tailings. The area of exposed tailings remaining in Cell 3 is saturated and/or covered with shallow water and ice throughout the year. LMI has observed no ongoing issue of dust blowing outside of the facility. The deposition noted by AANDC adjacent DAM 4 and DAM 6 originates from the esker material in the perimeter dam. Should the monitoring results show that windblown tails are currently being deposited outside of the facility (which is unlikely) as a result of the exposed saturated tails in Cell 3 additional measures will be implemented to control this source.</p> <p>The discussion was brought up again at the TMC-PHC where the NWB asked for some clarity from AANDC on the area of windblown tailings. LMI was left with the impression that the areas identified by AANDC are not areas NWB staff would have identified based on previous information, and having working knowledge of the Lupin Mine. The NWB suggested that this be discussed further between the parties prior to sampling in 2015.</p>	<p>LMI indicate that soil the sample results that AANDC provided was consistent with background soil concentrations specific to the site. However, AANDC has concern that the background samples in question were taken after 20 years of mining and may not reflect true background conditions.</p>	<p>The Morrow 2006 ESA adequately selected background sampling locations. Lupin is an underground mine and not an open air ore transport operation which would have the potenital to effect the sourrounding environment via fugitive dust. Adequate sample locations were selected by leading proffesionals to meet the objectives of the ESA. The ESA has been on file with the NWB since 2006 and remains valid as the site has been in care and maintenance since that time. [The AANDC sample is consistent with the work done by Golder and it should be noted that tailings have a completely different arsenic signature than that provided by the AANDC assay, which would be orders of magnitude higher]</p>

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			<p>At the TMC_PHC LMI requested the soil sample analytical results for the sample that the Inspector collected, as this sample has consistently being referred to as the reason AANDC requests the sampling program. Following receipt of the Inspector's sample results, SRK reviewed the information and determined that the sample result is consistent with background soil concentrations specific to the site. The sample result does not indicate that further remedial efforts are warranted and it does not document the occurrence of ongoing windblown tailings being spread into the environment.</p> <p>LMI clarified in the commitments list that additional sampling will be carried out in the summer of 2015.</p> <p>During an October 16, 2014 teleconference with AANDC, it was agreed that there was some confusion between AANDC, their technical advisor at SENES and LMI as to actual area where historic windblown tailings environmental effects would be expected, and that further discussions should take place. During this same teleconference LMI also noted the concern that the Inspector had given LMI a timeline to complete sampling of the esker material by November 15, 2014 and that when LMI went to site to complete this work an early snowfall prevented the sampling from being completed. LMI did request during the call that since there was on-going confusion as to the actual area in question, which would be resolved prior to the 2015 season, that AANDC agree that LMI would take samples in 2015. AANDC agreed that it would not be an issue. Regardless of these discussions and the agreement and commitment to carry out sampling in 2015, AANDC continues raise the November 15, 2014 deadline as an issue.</p>		Addressed.
2.1 (b)	Windblown Tailings	<p>LMI has committed verbally to assessing and characterizing the material that has blown from the tailings containment area (TCA), and not just in a localized area (proximal to Dam 6), to determine whether it is esker material or tailings. LMI has also committed to submit the results of the study to the NWB and should it be determined that it contains tailings, a plan is to be developed to address the issue.</p>	<p>LMI has committed to sampling the localized area proximal to DAM 6 in 2015. <b>LMI has not agreed to conduct a wider area sampling program</b>, but did commit to ongoing clarification of the area to ensure sampling targets the correct area. <b>The result of such a study will not address the original concern; that contaminated dust continues to be deposited outside of the facility at concentrations that warrant the covering of the remaining exposed tailings prior to final closure of the mine.</b> Such a study will aid in the assessment of legacy environmental influences; it will not determine if the effects are improving or getting worse.</p>	<p><b>Not Addressed</b></p> <p>Windblown tailings were identified by the Inspector in 2012 as a potential issue. LMI committed in 2012 to undertake an update to the Environmental Site Assessment to assess whether or not contamination is present or occurring on site, including the tailings containment area (TCA). This study was not undertaken.</p> <p>LMI committed to undertake an evaluation of the windblown material in June and July 2014 and to provide information by the end of August 2014. LMI did not undertake this confirmatory sampling prior to snowfall and AANDC had no choice but to agree that the sampling be undertaken in 2015.</p> <p>More recently, the AANDC Inspector required LMI to conduct sampling of the perimeter of the TCA and not just the localized area proximal to Dam 6 to address the original concern. AANDC notes that failure to complete this work may result in enforcement action under the Act.</p> <p>AANDC is seeking LMI commitment to conducting visual inspections of the entire TCA perimeter as per the 2012 commitment to the ESA and investigate any potential tailings contamination outside the TCA.</p>	<p><b>It is very important to clarify that wind blown tailings have never been identified by the Inspector or by LMI.</b> An external tailings expert visually studied the area of concern to the Inspector and has confirm ed that it is esker material.. AANDC's sample was reviewed by SRK and determined to be consistent with background. While there exists no reasonable evidence that tailings are being "windblown" from the TCA, LMI ihas committed to take additional samples as per commitment #1 in order to achieve final resolution of this matter with the Inspector.</p>
2.1 (c)	Windblown Tailings	<p>LMI was requested by the Inspector to provide documentation proving that the material blown outside the TCA is esker material rather than tailings, but failed to conduct the sampling by November 15, 2014 as required. Similarly, LMI committed to submit the documentation requested by the Inspector by October 31, 2014. This was never provided. This information should have been provided prior to issuance of a licence and while there were opportunities to prove whether the material is esker or tailings, LMI has deferred this study until next year without the approval/agreement of the Inspector.</p>	<p>Please see above responses. <b>AANDC previously agreed to proceed with the sampling in 2015 as result of the weather delay in 2014.</b></p> <p>LMI is of the understanding that the Inspector was in agreement to defer the sampling until 2015 based on correspondence dated November 27, 2014.</p> <p>LMI submitted information to the Inspector as requested on October 31, 2014. A second email with requested additional geotechnical report did not go through until November 4, 2014 due to network issue. The inspector did confirm receipt of the report.</p>	<p><b>Pending</b></p> <p>Since the sampling was not completed in 2014 (or sooner), AANDC had no choice but to agree to sampling in 2015.</p> <p>Based on LMI's commitment to sample in 2015 and considering their compliance history regarding this issue, we consider this issue to be pending. AANDC requests that the licence include a requirement to conduct the study as detailed by the Inspector and to complete regular visual inspections of the complete TCA perimeter. Where windblown materials are identified outside of the TCA, LMI should be required to demonstrate whether the material is tailings and develop a plan to address remedial measures, as committed.</p>	<p>LMI provided a review of the existing information at the public hearing that supports the determination that tailings are not escaping from the TCA. All parties agreed on the sampling to be completed in 2015.</p>

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2.1 (d)	Windblown Tailings	Upon reviewing the soil sample result collected by AANDC in 2012, LMI concluded that the arsenic concentration in the sample collected outside the TCA did not exceed background levels established at Lupin. However, the samples that LMI calls background were surface samples that may have been impacted by mine operations (samples collected by Morrow in 2005 were collected in the vicinity of the mill after more than 20 years of mining and milling in the vicinity of the sampling sites). A study framework (not to be confused with the sampling plan due on May 31, 2015 as requested by the Inspector in the November 27, 2014 response to LMI) is recommended to ensure that the windblown material being tested is compared against background concentrations remote from the mine influence and not concentrations that may have been potentially influenced by mine operations.	After receiving the sample analysis from AANDC, SRK provided a memo based on their review which determined that <b>the arsenic concentration in the sample collected to document the presence of windblown tailings outside of the TCA does not exceed background levels established at Lupin</b> , and the result does not indicate that further remedial efforts are warranted (SRK 29 October 2014). LMI will conduct follow up sampling in June - August 2015 to characterize the material deposited below DAM 6 or as determined through ongoing clarification of the area of potential impacts to ensure sampling targets the correct area. The result of the proposed study will not address the original concern; that contaminated dust continues to be deposited outside of the facility at concentrations that warrant the covering of the remaining exposed tailings prior to final closure of the mine. Such a study will aid in the assessment of legacy environmental influences; it will not determine if the effects are improving or getting worse.	<b>Not Addressed</b>  The soil sample results that AANDC provided was consistent with background soil concentrations specific to the site. However, the background consisted of surface samples collected (by Morrow in 2005) within the vicinity of the mill and may have been impacted by 20 years of mining operations and thus, may not constitute background concentrations prior to mining. <b>AANDC would like to ensure that the samples taken in 2015 will be compared against background concentrations remote from the mine influence.</b>	The Morrow 2006 ESA background samples are valid and accepted by all parties at that time as being valid and reflect local site specific conditions. It would not be appropriate to take samples far remote from the mine as the local soil conditions are influenced by the specific geology of Lupin and must be captured, as they have been, in the background.
2.1 (e)	Windblown Tailings	Recommendation AANDC recommends that a) a study framework for the windblown material be submitted for review and approval prior to issuance of a licence; b) a precautionary approach be used when setting the financial security and that it is based on the assumption that this material is tailings, until proven otherwise; and c) the investigation and report on windblown material be a condition of the licence which is to be submitted by December 31, 2015.	<b>Until AANDC can clearly articulate the reason for the study</b> it is unlikely that LMI will be able to provide a study framework that will meet AANDC's requirements.  In regards to financial security, AANDC has stated until proven otherwise, a precautionary approach be used while LMI would state that the experts in the field and highly educated mine personnel (whom have been working with tailings for decades) that have seen the area and analyzed the sample are all of agreement that this is not windblown tailings. However, <b>LMI will still carry out the required studies but they believe this should not affect the financial security amount. There is NO evidence to suggest that concentrations of metals outside of the TCA warrant additional remediation measures. There is also no evidence that contaminated dust continues to be deposited outside of the facility at concentrations that warrant the covering of the remaining exposed tailings prior to final closure of the mine.</b>	<b>Not Addressed</b>  AANDC is requesting a study because there is material present outside of the TCA and we need to determine whether the windblown material is tailings or esker sand, whether tailings are leaving the TCA, and whether the exposed tailings need to be covered prior to closure.  The financial security required under this licence should take into account the remaining uncertainties and be adjusted accordingly. When new information becomes available, LMI can request a reduction to the amount of security under Part C, Item 3 of the licence and s. 43 of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.  AANDC notes that there is also no evidence to show that tailings are <u>not</u> being deposited outside of the TCA and that progressive covering of exposed tailings is not warranted.	Addressed. As demonstrated above, there is not significant uncertainty with respect to the site. AANDC's position (which would almost double the current bond despite no material construction having been undertaken at the site during the licence term) does not give proper regard to the available historic information, the inability to provide an accurate estimate without a site visit (noting the AANDC expert has not visited Lupin since 2002 ), the stage of current construction at site, and the outcome of monitoring that has been undertaken throughout the term of the Water Licence. LMI submits that as detailed above, there is significant and compelling evidence to show that tailings are not being deposited outside fo the TCA. LMI manages the TCA in compliance with the Water Licence requirements including all requirements relating to progresive reclamation.
2.2 (a)	Porewater Quality Monitoring	Background AANDC initially recommended that LMI conduct porewater quality monitoring to confirm that the esker sand cover is still functioning as designed (no data on porewater quality has been collected since 2005). LMI has agreed to installation of piezometers in the sand cover over the tailings to monitor water levels in the tailings and sand cover.	LMI agreed to the installation of piezometers within the esker sands to monitor water levels in the October 10, 2014 LMI Responses to Intervener's Submissions and during October 16, 2014 teleconference with AANDC and during the October 22, 2014 Technical Meeting. LMI intends to install drive-point piezometers. Groundwater elevations will determine if the tailings are completely saturated. The gradation of the tailings indicates that capillary rise will likely exceed 10 meters based on Holtz and Kovacs 1981 (page 169). LMI has been advised by SRK that should water levels periodically drop below the sand/gravel cover on the tailings, capillarity will keep the tailings at 85% or greater saturation which results in no interconnected pore space and effectively shuts off oxygen diffusion (MEND 2004).	no comment	LMI considers this issue resolved as per commitment #3.
2.2 (b)	Porewater Quality Monitoring	On October 16, 2014, LMI verbally committed to porewater monitoring. However, since the TM-PHC, there is no longer a commitment on the record to complete porewater monitoring. Given that lime has been required to adjust the pH prior to discharge from the tailings pond, there may be issues with acid production in the covered tailings. Thus, recent monitoring data of porewater quality within saturated tailings are required to assess whether the system is performing as projected.	<b>LMI did not commit to monitoring porewater quality</b> during the October 16, 2014 teleconference with AANDC; LMI agreed to monitor porewater levels. Obtaining water samples from small diameter drive point piezometers is not viable given the low hydraulic conductivity of the tailings (ranges from 1E-05 to 5E-05 cm/s). Seepage water exiting from the covered tails will report to the ponds within the tailings containment area (TCA). The porewater quality is therefore most effectively monitored by sampling water in the ponds within the TCA.	no comment	LMI considers this issue resolved as per commitment #3 and 4.



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2.2 (c)	Porewater Quality Monitoring	Recommendation AANDC recommends that the licence require a) porewater quality monitoring in the sand cover; and b) annual sampling of the piezometers.	Monitoring the progression of water quality in the interior ponds will provide data that can be used to assess whether the system is performing as projected. LMI proposes to collect water samples annually from the interior ponds (Pond 1, Pond 2, Cell 4 and Cell 5) and to provide the NWB with these results in the annual report going forward. The recent suite of analyses obtained by LMI for water in the interior ponds has included the following: pH, alkalinity, acidity, total ammonia, chloride, total cyanide, hardness, nitrate, nitrite, sulphate, total suspended solids, total metals and dissolved metals.  Monitoring porewater levels in the esker sands will not provide a definitive result that will inform LMI or the regulators that the system is performing as projected unless groundwater elevations are observed to be above the base of the esker sand/gravel cover.	<b>No Agreement</b>  AANDC requested porewater quality monitoring as a confirmatory measurement and notes that this monitoring was done on site up until 2006.  AANDC agrees that monitoring the progression of water quality in the interior ponds will also provide data that can be used to assess whether the system is performing as projected. While continued monitoring of porewater quality isn't essential, it was recommended to provide additional information on cover performance.	As noted by AANDC, water quality monitoring is adequate. LMI considers this issue resolved as per commitment #4.
2.3 (a)	Hazardous Waste	Background AANDC requested an inventory of hazardous waste on site and a plan for the removal of accumulated hazardous waste. LMI provided a manifest summary indicating the material that was backhauled but no information was provided on quantities of material in storage and quantities of material removed from site.	AANDC recommended to the NWB that they require LMI to provide a current inventory at site as part of an update to the Waste Management Plan, to be circulated to interested parties at least 30 days prior to the submission deadline for intervenor comments to the final hearing and the renewed licence stipulate that the inventory of hazardous waste be updated annually as part of the annual report. <b>LMI did commit to providing the information in the next iteration of the waste management plan but did not commit to having this completed prior to the public hearing.</b> The reason LMI provided the manifest is to address AANDC's statements in their inspection report that LMI had amassed a large amount of waste and that we were not backhauling it. The manifests provided to AANDC was to demonstrate that LMI has in fact backhauled a large amount of hazardous waste. LMI backhauls hazardous waste at every opportunity. LMI also explained that since they acquired the site all the hazardous waste from around the site has also been moved into a contained storage area, and <b>this consolidation could be the reason as to why AANDC incorrectly identified that the site has accumulated more waste.</b>	AANDC requested an inventory of hazardous waste in July 2014 (AANDC Inspection Report) and again at the October 16 meeting but this information has not yet been provided. LMI is reminded that LMI is required by law to provide such information as is reasonably requested during, and as a result of, an inspection. Failure to do so constitutes an offence under section 91 of the NWNSRTA.	As noted during the hearing, despite significant and continual efforts to resolve permitting challenges, LMI was very limited in its ability to attend at site during 2014. As explained to the Inspector and noted previously during the renewal process and at the public hearing, when LMI was finally able to get to site, the inventory could not be carried out due to a snow storm. LMI has provided manifests for the hazardous waste backhauled. LMI initiated strong housekeeping practices at site with respect to hazardous waste and consolidated waste inside a lined and bermed facility. LMI takes every opportunity to backhaul material. LMI has committed to provide annual updates in the water licence annual report on volumes of hazardous waste stored at site as per commitment #9. Commitments #7 and 8 also address hazardous waste management. LMI considers this issue resolved. In LMI's view, providing this information to the Inspector as soon as reasonably possible during 2015 is fully compliant with the NWNSRTA as well as evidence of its efforts to be responsive to information requests by the Inspector.
2.3 (b)	Hazardous Waste	In our October 16 meeting, LMI committed to providing a copy of their current inventory of hazardous waste on site and agreed that this inventory should be updated annually. This has not yet been provided. LMI also committed to providing the inventory in the 2014 annual report.	<b>LMI did commit to providing a list of the current inventory of hazardous waste on site if possible. LMI advised that it had sent a crew to site to complete this task but due to early snow fall it was not possible to complete.</b> This was discussed at the TM-PHC and <b>LMI agreed to provide the information in the 2015 season and to include it in future annual reports if required in the renewed water licence.</b> As this is not a required item on the list of commitments as issued by the NWB and LMI has committed to completing this task during the 2015 season it should not be viewed as something LMI did not address. While <b>LMI did commit to including updated inventory of hazardous waste in its annual reports</b> it should be clarified this would be implemented for the 2015 annual report in 2016.	AANDC notes LMI's commitment in bold. Notwithstanding, the requirement to provide such information to the Inspector remains outstanding.	Answered above. LMI considers this issue resolved.
2.3 (c)	Hazardous Waste	Recommendation AANDC recommends a) that a current inventory of hazardous waste as committed by LMI is submitted for review prior to the Public Hearing; b) that annual removal of hazardous waste be required to prevent the over-accumulation of hazardous waste on site; c) that the type and volume of hazardous waste on-site be reported annually in the Annual Report; d) that LMI confirm that removal of hazardous waste is included in the reclamation estimate (and indicate where in the estimate it is accounted for) and specify the total volume of the 2 truckloads; e) the storage of hazardous waste on site is limited to the maximum amount of stored hazardous waste used to calculate the reclamation cost estimate (i.e. 2 truckloads) and that the reclamation cost estimate be increased should more than two truckloads remain on site at the end of each year.	As stated above, due to an early snowfall the hazardous waste inventory was not completed and LMI agreed to provide the information in the 2015 season and to include it in future annual reports if required by the renewed water licence.  LMI has been and will continue to be very diligent in removing hazardous waste at every opportunity when safety and proper protocols allow. LMI has removed more hazardous waste than any other company that has owned Lupin since 2005. LMI has placed all hazardous waste in a lined and bermed facility pending backhaul. This is not something that was done prior to LMI owning Lupin.  Removal of hazardous waste is included in the cost estimate and LMI will continue to do so. While the amount of hazardous waste is not likely to exceed 2 truckloads, it is not reasonable to impose such a defined restriction on a maximum amount of storage in a water licence. The cost estimate is justified as it represents the upper end of waste likely to be stored. The facility is capable of storing additional material if needed and does not pose a risk to the environment.	<b>Parts a and c are considered addressed but Parts b, d, and e remain outstanding</b>  AANDC recommends staged removal of 'historic' hazardous waste for the duration of the licence term and annual removal of 'new' hazardous waste to prevent accumulation of hazardous waste on site.  A schedule to remove accumulated hazardous waste was requested but LMI is unwilling to make this commitment. AANDC recommends that the licence include a schedule for the removal of accumulated hazardous waste.  LMI states that removal of hazardous waste is included in the cost estimate but LMI has not yet clarified where in their cost estimate the cost for removal can be found or the total volume of 2 truckloads. LMI needs to provide confirmation that removal of hazardous waste is fully accounted for prior to licence issuance.  LMI states that defined restrictions should not be imposed regarding the storage of hazardous waste. AANDC recommends that the annual updates to the reclamation estimate (Schedule B, Item 1b) be required to outline and account for increases to the maximum amount of hazardous waste stored on-site and that the Board consider adjustments to the amount of security based on annual updates to the current mine reclamation liability.	b) LMI has instituted proper house keeping of hazardous waste at the mine since taking over the project and has consolidated all hazardous material in a dedicated facility that is lined and bermed. LMI has made determined efforts to backhaul a significant amount of hazardous waste and will continue to do so. However, providing a concrete schedule and committing to removing all hazardous waste every season is not practical and the reason why there is a storage facility on site. d) the inclusion of hazardous waste backhaul in the reclaim estimate was discussed at the hearing and AANDC agreed that 2 or 3 truck loads during demobilization has no effect on the reclaim estimate. e) Given AANDC's acknowledgement that there is no appreciable costs difference between 2 or 3 trucks during demobilization, this is no longer an issue. LMI considers all of the above issue to be resolved.

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2.4 (a)	Water Management Plans	LMI has submitted a number of management plans with the application including the Interim Abandonment and Reclamation Plan (discussed above); Fuel Containment Strategy; Spill Contingency Plan; Water Quality Monitoring Plan; Quality Assurance/Quality Control Plan; and Waste Management Plan. AANDC has provided comments and raised issues which have for the most part been addressed by LMI. AANDC requests that the plans be updated within a timeframe set by the licence to reflect the current care and maintenance status of the site.	LMI will update the management plans within the timeframe and guidance as set by the renewed licence.	ok	LMI considers this issue to be resolved.
2.4 (b)	Water Management Plans	The Water Quality Monitoring Plan and Quality Assurance/Quality Control Plan (2013) should be revised to include internal pond water quality monitoring. LMI indicated that they sample the interior ponds in August or September, after any thermocline has dissipated. The recent suite of analyses obtained by LMI included the following: pH, alkalinity, acidity, total ammonia, chloride, total cyanide, hardness, nitrate, nitrite, sulphate, total suspended solids, total metals and dissolved metals. LMI proposes to collect samples annually from the ponds Pond 1, Pond 2, Cell 4 and Cell 5 and to provide the NWB with these results in the annual report going forward.	LMI will update the Water Quality Monitoring Plan and Quality Assurance/Quality Control Plan as directed by the renewed water licence.	ok	LMI considers this issue to be resolved.
2.4 (c)	Water Management Plans	<p>Recommendation</p> <p>AANDC recommends that a) the licence require LMI to submit updated plans for approval within 60 days of licence issuance; b) plans are distributed for comments prior to approval; c) commitments made by LMI are reflected in the water licence; and d) monitoring of internal pond water quality be included as a condition of the licence.</p>	<p>LMI will provide the updated management plans as directed by the renewed water licence. LMI suggests that a minimum of 90 days be included.</p> <p>LMI agrees that the plans should be distributed for comment prior to approval.</p> <p>LMI is agreeable that its commitments be noted by the NWB in the written decision document for the water licence.</p> <p>LMI agrees with the recommendation that the monitoring of internal pond water quality be included as a condition of the license. Monitoring the progression of water quality in the interior ponds will provide data that can be used to assess whether the system is performing as projected. LMI proposes to collect water samples annually from the interior ponds (Pond 1, Pond 2, Cell 4 and Cell 5) and to provide the NWB with these results in the annual report going forward. The recent suit of analyses obtained by LMI for water in the interior ponds has included the following: pH, alkalinity, acidity, total ammonia, chloride, total cyanide, hardness, nitrate, nitrite, sulphate, total suspended solids, total metals and dissolved metals.</p>	<p><b>Parts a, b and d are considered addressed</b></p> <p>LMI has requested 90 days to allow for suitable time to address all management plans. AANDC agrees with this timeframe.</p> <p>LMI agreed to having their commitments noted in the written decision document (response to part c). AANDC would like to clarify that our request was that LMI's commitments would be incorporated as conditions in the licence (and not just in the reasons for decision document).</p>	c) LMI is agreeable to the inclusion of water use and waste disposal related commitments in the water licence. LMI considers these issues to be resolved.

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2.5 (a)	Care and Maintenance	<p>Background</p> <p>The primary concern with the care and maintenance plan is the risk associated with an unattended site. During much of the year there is no presence at the site, despite the requirement for daily inspections under Part E, Item 6f of the existing licence. This greatly increases the risk that unplanned events could lead to contamination of the environment. The site contains millions of dollars of infrastructure (buildings, fuel farms, sewage ponds, hazardous waste storage, tailings dams and ponds), all of which require care and maintenance. With no presence on site, spills could go undetected for weeks and during the winter period, months could pass without inspection during which period a material failure would go undetected. LMI cannot meet its own commitments in its management plans, water licence monitoring requirements or the Mine Site Reclamation Guidelines (MSR guidelines) with an unattended site.</p>	<p><b>There are many sites that effectively carry out care and maintenance without a constant presence at remote locations.</b> Established close out procedures are followed specifically for this purpose. LMI acknowledges that a site presence is required on a regular frequency during the open water period that ensures the conditions of the Licence for the protection of the receiving environment can be met, and to ensure that facilities are inspected on a regular basis to ensure stability prior to freeze up. To this end, <b>LMI carries out monthly inspections from May to October</b> and a comprehensive annual geotechnical inspection by a third party. LMI also completes upgrades when deemed appropriate. <b>Given that the facilities are found to be in stable condition, and issues are addressed considering risks prior to leaving site, there is no need to maintain an on-going site presence.</b> In contemplating the schedule for care and maintenance LMI has given due consideration of the increased risks to the safety of small caretaker crew working at a remote location. In point of fact the likelihood of potential spillage or environmental damage would be considerably greater with a small crew in a remote dark and extremely cold location than with zero presence at site.</p>	<p>1st bolded segment AANDC would consider monthly visits to site through the winter months, consistent with other major project sites in the region.</p> <p>2nd bolded segment AANDC notes that the first bolded segment is inconsisntent with the requirements under the current licence.</p> <p>3rd bolded segment AANDC maintains that monitoring of facilities and infrastructure are conducted on site year-round. Until a ‘reasonable reliable system’ can be identified for remote surveillance monitoring, LMI must consider alternative options. For example, other projects in the region have employed local HTO members to conduct monthly inspections on behalf of the company.</p> <p>4th bolded segment LMI completes an inventory of fuel and chemicals on site as part of their standard procedures to vacating the site. AANDC requests clarification on whether standard procedures were followed prior to vacating the site in 2014 and whether this information (i.e. inventory of fuel and chemicals) can be made available prior to licence issuance.</p>	<p>LMI has requested that the licence be amended to clarify that appropriate scale of monitoring during care and maintenance. LMI has followed the recommendations of the geatechnical engineer in developing the monitoring frequency for care and maintenance and it is therefore appropriate and does not require monthly visits during the winter after the facilities have been inspected and closed for the season. LMI will continue to investigate options for remote surveillance, however given the very good condition of facilities at site this is not deemed necesarry. The suggestion that an activity deemed too risky for a contractor is ok for Inuit HTO members is not reasonable. LMI prioritizes safety as number one for everyone. LMI has provided detailed fuel inventory as noted during the public hearing. LMI considers the above issues to be resolved.</p>
2.5 (a) (cont)	See above	See above	<p>Similar to other northern remote sites in care and maintenance, LMI follows standard procedures prior to vacating the site on a temporary basis including securing access, inspection of waste management areas, inventory of fuel and chemicals, recording of fluid levels in tanks, and inspection of drainage systems. As requested, LMI submitted proposed water use volumes for different levels of activity at site with corresponding inspection frequencies to the NWB following the TM-PHC.</p>	See above	<p>Answered above.</p>
2.5 (b)	Care and Maintenance	<p>In their application, LMI requested a reduction in monitoring requirements to bi-weekly during freshet and monthly during the remainder of the open water period. AANDC recommended that LMI satisfy Part E, Item 6f of the existing licence which requires daily inspections during freshet and weekly inspections during the open water period due to the fact that LMI requested the flexibility to resume operations at any time.</p>	<p><b>As noted in LMI's opening comments above, there were considerable regulatory changes that limited what LMI could carry out at site in 2014.</b> While a minor overtopping occurred in 2012, it was unrelated to site presence. 2012 was the first complete season LMI operated the site and the lesson learned during the overtopping, was to ensure that the sewage lagoon is adequately low prior to freeze up in the fall so that it can receive spring melt water. This is addressed by the care and maintenance inspection schedule and does require constant site presence during the freshet period.</p> <p>Finally, small spills are addressed by shovelling the impacted soil into drums for storage pending backhaul. LMI has submitted a Landfarm Management Plan to address the historic area of hydrocarbon impacted soil at the satellite tank farm, which occurred from a historic spill outside the berm. Additional work requested by the Inspector generally refers to windblown tailings which have already been addressed as not being an issue based on analysis of the Inspector’s sample results.</p>	<p>AANDC clarifies that there were no regulatory changes as LMI indicates.</p>	<p>As noted by LMI during the public hearing and in LMI's responses to AANDC's January 5, 2015 public hearing submission, LMI was advised that it required a Land Use Permit to access site in 2014. This was the result of a very new AANDC policy change and Land Use Permits had never been required previously at Lupin in order to proceed with activities on the Crown lease. . Despite filing the Land Use Permit application iin May 2014, LMI I has not yet recieved a LUP applicable to the Lupin site. Copies of renewed surface leases have also not been recieved despite the applications being filed in 2011 and fees fully paid since that time.</p>
2.5 (b) (cont)	See above	<p>LMI responded that it has carried out care and maintenance work each year to ensure the site is secure and unless the geotechnical inspection identifies an issue that would warrant a permanent site presence, which is not the case to date, placing a crew at the remote site is unwarranted and poses an unacceptable health and safety risk for LMI. However, LMI’s current level of care has been deficient: the ‘care and maintenance work’ is not addressing the deficiencies on site. The sewage lagoon overtopped in 2012, and in 2014 was determined to be seeping from the lower dam. The company has refused to address spills on site and has repeatedly failed to undertake work required by the Inspector, despite repeated extensions.</p>	See above	See above	<p>LMI considers this issue to be resolved.</p>

TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
2.5 (c)	Care and Maintenance	<p>The challenges of providing a full time presence at the site during care and maintenance are understood but the terms and conditions of the water licence and the MSR guidelines need to be followed. AANDC has agreed to consider a request by LMI for different threshold for water use, monitoring, and inspections during care and maintenance and mine operations. A request for different thresholds for water use and monitoring frequencies during different activity levels (operations, ramp-up, and care and maintenance) was distributed to interested parties on December 17, 2014. AANDC reviewed the request and agrees with the proposed water use for all activity levels and the monitoring frequencies proposed for operations and care and maintenance. However, since the monitoring frequency during care and maintenance is recommended by a geotechnical engineer, the frequency may be subject to change depending on annual geotechnical inspections, which should be reflected in the licence.</p>	<p>LMI anticipates that the water licence will be updated with the renewal to clarify the reasonable level of monitoring during the different activity levels. <b>The guidelines noted by AANDC should be revised as they do not reflect the realities of working in a remote northern environment</b> where there are safety concerns for remote work crews, which must be minimized. As noted in the previous response above, LMI considers the input from the qualified engineer’s who carry out work and inspections of site facilities to decide if and how to adjust monitoring frequencies. Frequencies may be adjusted from time to time based on input from the independent geotechnical engineer.</p>	<p>AANDC prefers that the monitoring frequencies be explicit in the licence, although the Licensee may apply to amend the monitoring requirements should the engineer recommend a change. AANDC acknowledges LMI's recommendation to review the MSRG and will take it under advisement (or will undertake the review when resources exist to do so).</p>	<p>LMI submitted proposed monitoring frequencies to the NWB to incorporate into the renwed licence. LMI also acknowledges that AANDC noted the requirement to modify Part D Item 4, and Part H, Item 6 which indicate weekly inspection frequencies. These conditions should reflect the stages of activity as recommended by the NWB.</p>
2.5 (d)	Care and Maintenance	<p>Furthermore, the geotechnical engineer’s recommendations are based on the assumption that the mine is under care and maintenance. A monitoring frequency of twice per month during freshet, monthly during the remainder of the open water period, and every other week depending on site presence is being proposed during ramp-up. It is unclear how the reduced monitoring frequency during ramp-up was determined, considering that the geotechnical reports (2012-2014) submitted thus far did not include any recommendations for monitoring during ramp-up.</p> <p>As ramp-up would assumedly include an increase in presence, activity, water use, and waste disposal, the monitoring requirements should increase accordingly.</p>	<p>Monitoring frequency during ramp up is proposed by LMI on the basis of the water and waste facilities are anticipated to be in use during this time, which are not substantially different than care and maintenance and therefore the monitoring frequencies are similar. For example, water and waste disposal associated with mining and milling are not factors during ramp up as the mill and TCA are not in use. Therefore the inspection frequency would remain the same.</p>	<p><b>Pending</b></p> <p>LMI proposes to use 100X more water during ramp-up than care and maintenance and will likely accommodate more people at the camp and deposit more waste on site. The monitoring frequency should reflect the level of activity on site and since the level of activity during ramp-up is higher, so should be the monitoring frequency.</p> <p><b>AANDC recommends that the Board consider this increased activity when setting the monitoring requirements for ramp-up and care and maintenance.</b> AANDC recommends that the monitoring frequencies during ramp-up be the same as those during operations.</p>	<p>LMI agrees that monitoring frequencies during ramp up should reflect the activities at site, except for the TCA which would not be in use during ramp up, and contingent on site presence. For example it must be considered that initial ramp up could begin in the summer with a temporary shutdown for a few months during the winter. [However, LMI would committ to informing the inspector and the NWB of all activities and schedules involved during the ramp-up period.</p>
2.5 (e)	Care and Maintenance	<p>AANDC requested LMI to assess whether there were remote methods (e.g. video surveillance) that could be considered. LMI has agreed to investigate options for remote monitoring but no response has been received to date.</p>	<p>LMI did respond to this request on October 10, 2014 and advised that LMI had investigated remote video monitoring and determined that there are power challenges during the extended dark winter period. We have not been able to locate a reasonably reliable system. However <b>LMI will continue to assess options and the feasibility of this approach with the supplier.</b></p>	<p>AANDC notes LMI's commitment in bold</p>	<p>LMI considers this issue resolved.</p>

TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
2.5 (f)	Care and Maintenance	<p>AANDC recommends a) that Part E, Item 6f of the existing licence remain as a condition during mining operations; and b) confirmation that the recommendations for the monitoring frequency during ramp-up were provided by a geotechnical engineer; c) that the monitoring frequency during care and maintenance include a caveat “or as recommended by a Geotechnical Engineer in annual geotechnical inspection reports required under Part E, Item 6g”; and d) that LMI continue to investigate the feasibility of remote surveillance for remote monitoring during care and maintenance and submit a future amendment request should it prove feasible and agreeable to LMI, AANDC and the Board.</p>	<p>LMI has proposed water use thresholds with corresponding monitoring frequencies related to Part E, Item 6f. <b>The monitoring frequency during ramp up is unchanged from care and maintenance as the TCA is not in use during ramp up.</b> As noted above, while remote surveillance is not likely a reliable system for this site at this time, LMI continue to assess options and the feasibility of this approach with the supplier.</p>	<p><b>Addressed / Follow-up Recommendation</b></p> <p>AANDC notes that parts a-d are no longer outstanding. We do have a follow-up recommendation regarding the proposed monitoring frequencies during ramp-up (part c).</p> <p>LMI proposes to use 100X more water during ramp-up than care and maintenance and will likely accommodate more people at the camp and deposit more waste on site. The monitoring frequency should reflect the level of activity on site and since the level of activity during ramp-up is higher, so should be the monitoring frequency.</p> <p><b>AANDC recommends that the Board consider this increased activity when setting the monitoring requirements for ramp-up and care and maintenance.</b></p> <p>LMI submitted a request to set thresholds for Part D, Item 6f regarding the TCA and noted that monitoring frequency during ramp up is unchanged from C&amp;M as the TCA is not in use during ramp up (see bolded segment). This is understandable but AANDC requests clarification whether LMI intends to request similar monitoring requirements for inspections of water management structures (Part D, Item 4) and fuel containment (Part H, Item 6) facilities.</p>	<p>Answered above. LMI considers this issue resolved.</p>
2.6 (a)	Progressive Reclamation	<p>Background</p> <p>LMI is required to implement progressive reclamation under Part I, Item 9 of 2AM-LUP0914 but only when realistically possible. Because no progressive reclamation of the tailings or waste rock areas had been conducted during the 5 year licence term, AANDC recommended that LMI provide a schedule with clear objectives and timelines for progressive reclamation to be conducted during the proposed licence period, applicable whether the mine is operational or in care and maintenance. LMI did not agree to address exposed tailings except as part of the final reclamation.</p>	<p>Progressive reclamation only applies to facilities that can no longer be used. The TCA still has capacity to support operations and will not be covered any further until a decision is made by LMI to enter final closure. LMI carries out progressive reclamation where possible including through the backhaul of waste as demonstrated by the submission of the KBL manifests, and through the submission of the Landfarm Management Plan, which will support the clean-up of the historic spill at the satellite tank farm. Premature reclamation of facilities must be avoided in order to prevent the premature sterilization of the mineral resources at site. As noted above, LMI will take steps to ensure stability of all current site facilities while maintaining the ability to reopen the Mine in future should economic conditions support.</p>	<p>N/A</p>	<p>LMI considers this issue resolved.</p>
2.6 (b)	Progressive Reclamation	<p>Recommendation</p> <p>Due to the potential risk that the mine does not resume operations during the life of the proposed licence, AANDC recommends that the licence require a) progressive covering of the exposed tailings during care and maintenance; and b) LMI to submit an updated progressive reclamation plan as part of the update to the IARP. This plan should provide a schedule for the progressive decommissioning and reclamation of the tailings and waste rock areas.</p>	<p>Progressive reclamation only applies to facilities that can no longer be used. The TCA still has capacity to support operations and will not be covered any further until a decision is made by LMI to enter final closure. As noted previously within these responses, upon restarting the milling operation at Lupin, the current plan is to deposit tails into Cell 5. There is approximately 155,000 m2 of Cell 5 available for the deposition of additional tails as of 2014. The 86,000 m2 area of exposed saturated tails in Cell 3 represents a contingency location for the deposition of tails at the restart of operations. The timeframe for the return to operations is not known at this time and it would not be reasonable to be locked in to a schedule for progressive reclamation of the facility as this would needlessly eliminate the potential for future mining at Lupin, with no environmental benefit and significant economic harm to LMI as well as the Kitikmeot Region.</p> <p>There is also no evidence that tailings continue to be deposited by wind outside of the facility. Therefore, there is no evidence to suggest that the covering of the remaining exposed tailings is an urgent matter.</p>	<p><b>Not Addressed</b></p> <p>LMI stated that the TCA will not be covered any further until final closure and that there is no evidence to suggest that the covering of the remaining exposed tailings is an urgent matter. AANDC notes that there is no evidence that covering of the remaining exposed tailings is not required to ensure protection of the surrounding environment.</p> <p>AANDC maintains that covering of the exposed tailings should be required as a non-discretionary licence condition. This could include a temporary stabilizer to mitigate the risk of windblown tailings and to enable future use of the TCA, as proposed in the Care and Maintenance Plan.</p>	<p>LMI provided clear evidence that there is no sign of on going wind blown tailings from the TCA. This includes a visual inspection by a tailings expert as noted during the hearing, aerial photographs, and a review of AANDC's own sample results. LMI has further committed to take additional samples during 2015 as per commitment #1. LMI considers this issue to be resolved. LMI also gave clear and valid reasons at the public hearing as to why these dams should remain open for planned re-start of operations as stated in the annual reports of 2011, 2012 and 2013. LMI commits to investigate during 2015 whether valid practical options for a temporary cover are available.</p>
3	Other Issues	N/A	N/A	N/A	

TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
3.1 (a)	Acid Generating Waste Rock	<p>Background</p> <p>In the original closure plan documentation, waste rock was generally believed to be non-acid generating. During development studies, waste rock was alkaline and had near neutral net neutralization potential. Morrow (2006) collected a large number of samples and reported that about 44% of the waste rock samples had already become acidic and some leached elevated levels of metals (see Figure 1 in Morrow 2006). Morrow (2006) found acidic ground waters in drainage from waste rock and also measured the median concentration of arsenic in the waste at 1140 mg As/kg. Morrow recommended that additional ground water quality monitoring would need to be conducted to assess the long term impact of seepage from the waste.</p>	<p><b>LMI is not clear on where the above statement comes from and requests that AANDC provide the source material for these quotes.</b> No studies during development indicated waste rock was alkaline and had near neutral net neutralization.</p> <p>Morrow reported on waste rock samples collected by Kinross mine site staff in 2004. URS Canada Inc. was retained by Kinross to interpret the results, and Morrow provides a summary of the URS report in the ESA.</p> <p>The median concentration of arsenic in the development waste rock is 1,140 mg As/kg. The data set evaluated by Morrow included the analysis of coarse rock fragments. The analysis of coarse rock fragments does not directly indicate what impacts the waste rock may have on the receiving environment. Morrow did not report that 44% of the waste rock samples were acidic, AANDC’s technical advisor, SENES, calculated that 40% of the solid samples were acidic.</p>	<p>The basis was assumed from the original licensing when no special provisions were included to identify and manage acid rock. AANDC's main concern is that there is on site today potentially large quantities of acid generating waste.</p>	<p>LMI has adopted that AANDC 40% as a conservative number for reclamation cost purposes. LMI has committed to carry out additional seep surveys and will verify the approach to addressing PAG rock in the final closure plan for the mine and mill area, as needed.</p>
3.1 (a) (cont)	See above	See above	<p>Groundwater quality monitoring is inherently difficult in arctic environments. The sampling of water seeping from a waste rock pile is a far more reliable source of data in the arctic for a multi-year monitoring program. Because the seeps represent groundwater they should be analyzed for dissolved metal concentrations and the results assessed as groundwater concentrations not freshwater surface water. LMI has observed that Seep 1 and Seep 9, as identified by Morrow, continue to produce water during recent summer season. Flow from the other seeps identified by Morrow has not been observed in recent years at any appreciable flow rates.</p>	See above	<p>AANDC agreed that seeps are equivalent to groudwater. Seep monitoring is an appropriate approach for the sampling program.</p>
3.1 (b)	Acid Generating Waste Rock	<p>In the revised Abandonment and Reclamation Plan developed by Kinross in 2005, the potential for acid rock drainage was identified and this was addressed by removing waste rock to the underground mine where it would be frozen or capped and no longer a long term residual liability. Morrow also suggested that cover in place may also be a suitable option. LMI has suggested that some waste rock will be relocated to the tailings area.</p> <p>The actual quantity of waste rock that may require management is not known and additional study will be required.</p>	<p>LMI has also suggested consolidation and covering of waste rock as a suitable option. In order to develop a final reclamation and closure plan LMI intends to evaluate the costs and benefits associated with the various remediation options available for the waste rock.</p> <p>Kinross determined that the total volume of material associated with waste rock is 1,000,000 m3. The volume included the development waste rock and the overburden fill throughout the mine site (i.e.within the footprint of the industrial and residential complex, site roadways, dams within the sewage ponds, isolated laydown areas, tailings line foundation, airstrip). Therefore the waste rock volume has been properly accounted.</p>		<p>LMI considers this issue to be resolved.</p>
3.1 (c)	Acid Generating Waste Rock	<p>Recommendation</p> <p>AANDC recommends that a detailed waste rock characterization study be included in the licence to address the acid rock issue and its potential effect on the environment. The study should identify the total quantity of potentially acid generating waste rock and propose a management plan for this material. The study should also address ground water contamination as identified by Morrow (2006). These investigations are required to provide an improved estimate of the quantity of waste rock that may require relocation and management for the reclamation liability estimate and to assess what impacts are occurring from acidic seepage.</p>	<p>For the purposes of the IARP, it is assumed that 40% of the waste rock will need to be handled as ARD material (which is consistent with AANDC’s consultant SENES’ approach). LMI agrees that additional studies will be required to assess the various remedial options available for dealing with potentially acid generating waste rock in order to develop a final reclamation and closure plan. If the preferred option requires segregation of the PAG rock, it is acknowledged that further work will be required to assess methods for identifying this material during excavation. However, segregation may not be the most cost effective approach for some of the options under consideration, such as consolidating and covering the waste. Therefore, LMI proposes to complete a more detailed options evaluation prior to closure, and then tailor any further investigations required to support further advancement of the preferred option.</p>	<p><b>Parts a and b are pending</b></p> <p><b>Part c was not addressed</b></p> <p>AANDC requests that the licence include a requirement for the licensee to: a) conduct a detailed rock characterization program within the term of the licence to identify the total quantity of potentially acid generating waste rock at the Lupin Mine site and b) address ground water contamination as identified by Morrow (2006).</p>	<p>LMI has committed to carry out additional seep survey for the waste rock. This will determine whether there are any risks to the receiving environment and whether further action is required, which would include a more detailed characterization program.</p>



TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
3.2 (a)	Asbestos	<p>Background</p> <p>Given the age of the structures, there is concern that asbestos could be present at the site (i.e., insulation, buildings, etc.) and if this was the case, the reclamation liability could increase.</p> <p>An investigation should be completed to confirm there is no asbestos present on the site. Should asbestos be present, a remedial cost estimate for mitigation and cleanup should be completed and the reclamation cost estimate should be adjusted accordingly.</p>	<p>Sufficient asbestos inventories have been taken at site in order for LMI to be confident that it has appropriately been accounted for in its reclamation and closure planning. In 2006 an asbestos survey was conducted by Morrow Environmental Consultants in anticipation of the demolition of buildings on site. The survey identified a number of the buildings that require specific procedures, prior to demolition, for the handling, abatement, demolition and disposal of asbestos materials. The presence of asbestos materials as identified in that report was communicated to the contractors providing quotes for demolition so that the rates reflect these procedures.</p> <p>A more recent investigation was completed by Industrial Hygiene experts with Arctic Response at the Lupin site in August 2012. The assessment was completed in order to identify the presence of asbestos in materials not previously sampled and to recommend safe work procedures during the refurbishment of the site. Please see the table below for the results (refer to LMI submission).</p>		LMI considers this issue to be resolved.
3.2 (b)	Asbestos	<p>Recommendation</p> <p>AANDC recommends that the licence require LMI to conduct an investigation to confirm whether or not asbestos is present on site.</p>	LMI has conducted investigations to confirm whether or not asbestos is present on site and the need for special handling of certain materials has been taken into consideration in the demolition plans.	<p><b>Addressed but clarification is requested</b></p> <p>It is understood that the presence of asbestos was considered in demolition plans. Clarification is requested whether the demolition plans include the disposal of materials containing asbestos.</p>	LMI clarified during the public hearing that the demolition plans include disposal of materials containing asbestos.
Conclusion		<p>Only 5 out of a total 23 comments (18 comments in the technical review and the 5 additional comments provided at the technical meeting) have been fully addressed by LMI.</p> <p>There are still a number of issues that remain outstanding at the time of this submission and given the lack of timely provision of information by LMI throughout the application process, there is concern that sufficient information may not be made available prior to the Public Hearing, which may result in interveners not being able to contribute fully at the hearing, and the Board having to make a determination based on incomplete information.</p>	<p>LMI has provided information in regards to all 23 comments submitted by AANDC, as can be seen below. For ease of reference we have advised when LMI responded. LMI urges the Board to take in consideration that while AANDC may not be in full agreement with LMI's responses, LMI has provided the relevant information or fully addressed the comment for each of these items. LMI has contributed and responded to all information requests and LMI has fully participated and contributed to the application process.</p>	<p>AANDC notes that while LMI addressed (as in responded to) our comments, we labelled some issues in our table as outstanding or not addressed not because LMI did not respond to it but because we were not satisfied with the response or because information was still missing, or because we were still left with uncertainty).</p> <p>Please refer to the updated Status Table for comments regarding LMI's</p>	<p>LMI has made determined efforts to provide information and clarification wherever requested by parties to the renewal process. LMI is committed to working collaboratively with AANDC as we move forward with a more comprehensive field season in 2015 and as we work towards a mine restart. As stated previously, LMI urges the Board to take in consideration that while AANDC may not be in full agreement with LMI's commitments in response to Inspector's requests, LMI has provided the relevant information or fully addressed the comment for each of these items. LMI has contributed and responded to all information requests and LMI has fully participated and contributed to the application process.</p>
Conclusion (cont)	See above	<p>Based on the information provided and the significance of information that remains outstanding (i.e., reclamation estimate), and given LMI's contribution to the application process thus far, it is recommended that the information requested in this submission be provided prior to the Public Hearing, while allowing sufficient time for interested parties to review the new information. Alternatively, the financial security required under this licence should take into account the remaining uncertainties and be adjusted accordingly.</p>	See above	See above	Answered above.
LMI Concl 1	General		LMI addressed this during their presentation at the TM-PHC		
LMI Concl 2 and 4	Tailings Management		LMI addresses this in their responses to submitted on July 7, 2014 as well as responses to the SENES comments and responses to AANDC Tables submitted October 10, 2014.		
LMI Concl 4 and 5	Waste Management and Management Plans		<p>Waste Management</p> <p>LMI addresses this in their responses submitted on July 7, 2014 as well as responses to the SENES comments and responses to AANDC Tables submitted October 10, 2014.</p> <p>Management Plans</p> <p>LMI addressed in response to the AANDC Tables and at the TM-PHC</p>		
LMI Concl 6	Interim Abandonment and Restoration Plan		LMI addressed this in their responses to SENES and response to AANDC Tables submitted on October 10, 2014 and at the TM-PHC		
LMI Concl 7	Fuel Containment Management Strategy		LMI addresses this in their responses to SENES and response to AANDC Tables submitted October 10, 2014.		
LMI Concl 8 and 9	Spill Contingency Plan		LMI addresses this in their responses to SENES and response to AANDC Tables submitted October 10, 2014, during a conference call on October 16, 2014 and in further responses submitted on October 30, 2014.		

TC #	Subject	AANDC Comment	LMI Comment	AANDC Response	LMI Final
LMI Concl 10	Water Quality Monitoring Plan and Quality Assurance/Quality Control Plan		LMI addresses this in their responses to SENES and response to AANDC Tables submitted October 10, 2014.		
LMI Concl 11, 12, and 13	Waste Management Plan		LMI addresses this in their responses to SENES and response to AANDC Tables submitted October 10, 2014.		
LMI Concl 14	Reclamation Cost Estimate		LMI addresses this in their responses submitted on July 7, 2014 as well as responses to the SENES comments and response to AANDC Tables submitted October 10, 2014, the cost estimate submitted on October 17, 2014, discussed at the TM-PHC, discussed on a conference call held on November 24, 2014 and a revised cost estimate submitted on December 12, 2014.		
LMI Concl 15	Reclamation Cost Estimate		<p>Recognizing that financial security will likely be required under Crown land leases, AANDC recommends that Part C of the renewed licence allow the Board to “discount” an amount of reclamation security held under a Crown land lease from the total amount of reclamation security required to reclaim the mine undertaking when setting the security requirement under the water licence.</p> <p>AANDC required to submit the information as discussed at the TM-PHC and included in their technical meeting commitment list as included in their December 4, 2014 submission (distributed on January 4, 2015), to date no information has been provided to LMI or distributed by the NWB.</p>	AANDC apologizes that this was not received. We will resend this information and request an update from our Land Administrations Division.	Acknowledged.
LMI Concl 16	Care and Maintenance		LMI addresses this in their responses to SENES and response to AANDC Tables submitted October 10, 2014, during the TM-PHC, the cost estimates submitted October 17, 2014 and December 12, 2014 and submissions on October 30, 2014.		
LMI Concl 17	Inspection Report		<p>LMI addresses this in their response to the Inspector on August 25, 2014, October 10, 2014 and are in the process of completing their third response to be submitted early next week.</p> <p>LMI addresses this in their responses submitted on July 7, 2014 as well as responses to the SENES comments and response to AANDC Tables submitted October 10, 2014, cost estimate submitted on October 17, 2014, discussed at the TM-PHC, discussed on a conference call held on November 24, 2014 and a revised cost estimate submitted on December 12, 2014.</p>		
LMI Concl 18	Reduced Monitoring		LMI addresses this in their responses to submitted on July 7, 2014 as well as responses to the SENES comments and responses to AANDC Tables submitted October 10, 2014.		
LMI Concl 19	An updated reclamation estimate, filed with the NWB, that addresses the deficiencies identified at the TM-PHC (and later provided in writing on October 24, 2014 via a memo from Randy Knapp, SENES Consultants) as well as the commitments made by LMI vie telephone on November 24, 2014;		LMI addresses this with their submission of a revised cost estimate with notes on December 12, 2014.		
LMI Concl 20	An updated or addendum/erratum to the Interim Abandonment and Restoration Plan;		LMI addresses this in their submission on December 5, 2014.		
LMI Concl 21	Inventory of fuel onsite		LMI addresses this in their submission on December 5, 2014.		
LMI Concl 22	Inventory of hazardous waste stored on site and a schedule for removal of hazardous waste from site; and		LMI addresses this in their responses to SENES and response to AANDC Tables submitted October 10, 2014 and in comment 4 above.		
LMI Concl 23	A framework for the study on windblown material;		<p>This is a new item added in the December 4, 2014 submission from AANDC but windblown materials have been addressed on numerous occasions and is responded to again in the document above.</p> <p>In addition to the items above, LMI responded on July 7, 2014 to 5 additional comments (not included below) as submitted by AANDC on June 6, 2014 and an additional 5 licence comments included in the same submission of June 6, 2014.</p>		