Table 1: AANDC Proposed Changes to Water Licence 2AM-LUP0914

T & C	Original Condition	Proposed Condition	Comments	LMI Response October 10, 2014
General	The licence contains several references to information located in the licence application (Part A, Item 1 and Schedule A).	The licence should list all authorized activities and the definitions should be complete without reference to other documents.	Lack of clarity in the licence makes it difficult to enforce. The renewed licence should list all authorized activities and the definitions should be complete and stand alone.	It can be challenging to capture all the activities specifically in a licence and it is therefore important to include the application contents generally, which is before the NWB for approval as a whole. Listing specific activities in the licence for mining and milling can lead to omissions and too narrow a scope causing challenges with respect to enforcement, particularly if an activity is omitted in the licence. The scope of the licence must be read in the context of the application for mining and milling.
Part B, Item 8	Any notice to an Inspector shall be made in writing to the attention of: Water Resources Officer Nunavut District, Nunavut Region PO Box 100 Iqaluit, NU X0A 0H0 Telephone: (867) 975-4295 Fax: (867) 979-6445	Any notice to an Inspector shall be made in writing to the attention of: Water Resources Officer Nunavut Regional Office PO Box **2200** Iqaluit, NU X0A 0H0 Telephone: (867) 975-4295 Fax: (867) 975-6445	AANDC recommends that the contact information for the Water Resources Officer be updated.	Agreed.
Part B, Item 16	The Licensee shall review the Plans or Manuals referred to in this Licence as required by changes in operation and/or technology and modify the Plans and Manuals accordingly. Revisions to the Plans or Manuals are to be submitted in the form of an Addendum to be included with the Annual Report required by Part B, Item 2, complete with a revisions list detailing where significant content changes are made.	The Licensee shall review the Plans or Manuals referred to in this Licence as required by changes in operation and/or technology and modify the Plans and Manuals accordingly. Revisions to the Plans or Manuals are to be included with the Annual Report required by Part B, Item 2, complete with a revisions list detailing where significant content changes are made.	Part B, Item 16 requires the Licensee to review and modify plans and manuals accordingly and submit revisions in the form of Addendums. AANDC recommends that this term be changed to not limit the form of the submission to addendums. Complete plan updates, with revision lists, are preferred to facilitate operations, technical review, and enforcement.	Agreed. However, addendums are also useful in some cases and suggest including both in the condition: The Licensee shall review the Plans or Manuals referred to in this Licence as required by changes in operation and/or technology and modify the Plans and Manuals accordingly. Addendums or revisions to the Plans or Manuals are to be included with the Annual Report required by Part B, Item 2, complete with a revisions list detailing where significant content changes are made.
Part D		The Licensee shall maximize to the greatest practical extent, the use of reclaim water from the Tailings Containment Area for use in the mill during Operations. The Licensee shall evaluate the potential to recycle water and provide updates in annual reports.	AANDC recommends a new term and condition to a) encourage the use of reclaim water from the TCA during Operations to minimize the use of fresh water and the production of tailings water; and b) include LMI's commitment to evaluate the potential to recycle water at Lupin.	As noted in LMI response to AANDC on the completeness review, LMI will evaluate the potential to recycle water and the effect this could have on the mill process and ore recovery if the mine is put back in to operations. However, this evaluation would not be carried out on an annual basis. It would be a onetime optimization evaluation by the process engineer.
Part E		An inspection of all engineered facilities (including the Sewage Lake Disposal Facilities and the fuel containment facilities), except as specified in Part E,	Part E, Item 6g requires an annual inspection of the TCA but there is currently no requirement for inspections of other engineered facilities designed	Agreed.

		Item 6, shall be carried out within one (1) year following approval of the Licence by the Minister, during ice free, open water conditions by a Geotechnical Engineer. The Engineer's report shall be submitted to the Board within sixty (60) days following the inspection, and shall include a covering letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations.	to contain water or waste on site. Considering the length of time that the facilities have been in C&M and the apparent degradation of several structures, AANDC recommends a new term and condition (or a modification of the existing condition Part E, Item 6g) that requires an inspection of all engineered facilities (including sewage disposal facilities, fuel containment facilities, quarries, landfills, etc.) within one year of licence approval to determine the overall integrity of the engineered facilities and LMI's implementation plan in response to all of the Engineer's recommendations.	
Part E, Item 5	The Effluent discharged from the Tailings Containment Area shall not exceed the following effluent quality limits at Monitoring Program station LUP-10… …Oil and Grease: visible sheen	The Effluent discharged from the Tailings Containment Area shall not exceed the following effluent quality limits at Monitoring Program station LUP-10… …Oil and Grease: **5.0 mg/L and no visible sheen**	Part E, Item 5 requires all effluent discharged from the TCA to meet effluent quality limits set by the Board. A visible sheen is indicated as a limit for oil and grease but recommends that the limit be 5.0 mg/L and no visible sheen.	Oil and grease limit should be removed from the TCA effluent criteria as there is negligible hydrocarbon input to the system.
Part E, Item 8	The Effluent discharged from the Sewage Lakes Disposal Facilities shall not exceed the following effluent quality limits at Monitoring Program monitoring station LUP-14… …Oil and Grease: visible sheen	The Effluent discharged from the Sewage Lakes Disposal Facilities shall not exceed the following effluent quality limits at Monitoring Program station LUP-14… …Oil and Grease: **5.0 mg/L and no visible sheen**	Part E, Item 5 requires all effluent discharged from the SLDF to meet effluent quality limits set by the Board. As above, A visible sheen is indicated as a limit for oil and grease but recommends that the limit be 5.0 mg/L and no visible sheen.	Oil and grease limit should be removed from the sewage lakes effluent criteria as there is negligible hydrocarbon input to the system.
Part E, Item 11	The Licensee shall Discharge all Minewater to the Tailings Containment Area or to the Sewage Lakes Disposal Facilities, except as specified in Part E, Item 12.	The Licensee shall Discharge all minewater to the Tailings Containment Area or to the Sewage Lakes Disposal Facilities, except as specified in Part E, Item 12. **Prior to Discharge, Minewater shall not exceed the following effluent quality limits at Monitoring Program station** (new station).	Part E, Item 11 requires the discharge of minewater to the TCA or SLDF but parameters and effluent quality limits for these facilities in Part E, Items 5 and 8 are inconsistent. AANDC recommends that the NWB include parameters for minewater in the SLDF discharge criteria.	The additional criteria proposed for the SLDF should only apply if minewater has been pumped to SLDF. The additional criteria should not be standard as minewater is only pumped to the SLDF as a contingency.
Part E, Item 14	The Licensee shall remove from the project site, all Hhazardous wastes generated through the course of the Operation, for disposal at an approved hazardous waste disposal facility.	**To prevent the over-accumulation of these materials,** the Licensee shall remove accumulated hazardous wastes from the project site, over the licence period, for disposal at an approved hazardous waste disposal facility**.** The Licensee shall also annually remove all new hazardous wastes produced on site.	Part E, Item 14 requires the Licensee to remove all hazardous wastes from the project site during operations, but does not specify what should happen during C&M and no timeline for removal is provided. Hazardous waste continues to accumulate on site, posing an increasing risk. With a licence term of 3 years, for example, 1/3 of the accumulated hazardous waste should be removed each year, including addition hazardous waste that may be produced.	This is an onerous request. Hazardous waste is securely stored in a lined containment facility and backhauled every opportunity as flights are available. It is not feasible or practical primarily due to issues of safety, to guarantee the backhaul of all hazardous waste all the time and thus why the hazardous waste is stored securely. This recommendation could place the licensee out of compliance even though waste is stored as per best practice. LMI would also state that it was within the 2014 plan for stage 2 of re-start of operations that significant hazardous waste would be backhauled

				on the ice road when fresh supplies were to be delivered to the site and that still remains as part of the plan once the decision to restart is made. LMI also notes the significant amount of backhaul of hazardous waste since it took control of the operation in 2011.
Part G		All surface runoff during the construction of any facilities, where flow may directly or indirectly enter a water body, shall be sampled Weekly and not exceed the following Effluent quality limits: Parameter Maximum Average Concentration (mg/L) • Total Suspended Solids: 50.0 • Oil and Grease: no visible sheen • pH: between 6.0 – 9.5 Maximum Concentration of Any Grab Sample(mg/L) • Total Suspended Solids: 100.0 • Oil and Grease: no visible sheen • pH: between 6.0 – 9.5 •	Currently the licence does not include criteria for surface runoff during construction. AANDC recommends that the licence include criteria for all surface runoff during construction for total suspended solids, oil and grease, and pH (the criteria in the proposed change is taken from 2AM-MRY1325).	LMI does not anticipate that surface runoff form construction works would enter waterbodies, and therefore the need for this condition is unclear.
Part G, Item 2	Prior to construction of any dams, dykes or structures to contain, withhold, divert or retain water or wastes other than as contemplated in the Contingency Plan, the Licensee shall submit to the Board, for approval, final design and construction drawings signed and stamped by an Engineer.	The Licensee shall submit to the Board, for approval, final design and construction drawings signed and stamped by an Engineer **at least sixty (60) days** prior to construction of any dams, dykes or structures to contain, withhold, divert or retain water or wastes other than as contemplated in the Contingency Plan.	Part G, Item 2 requires the Licensee to submit final design and construction drawings for approval prior to construction but no timeline is provided for review.	Agreed.
Part G, Item 6	The Licensee shall use fill material for construction from an approved source, which has been demonstrated not to produce Acid Rock Drainage and to be non-Metal Leaching.	The Licensee shall use fill material for construction from an approved source, which has been demonstrated not to produce Acid Rock Drainage and to be non-Metal Leaching, and is **free of contaminants.**	Part G, Item 6 requires the Licensee to use fill material that has been demonstrated not to produce acid rock drainage and to be non-metal leaching but there is no requirement that the fill material is free of contaminants (i.e. hydrocarbons, chemicals, tailings, etc.).	The addition proposed is far too vague to be implemented in a water licence and would lead to compliance issues based on interpretation. The existing condition is protective of water quality.
Part H		All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.	AANDC recommends that a setback for the location of sumps and the storage of fuel be required in the licence to protect nearby waters from potential contamination.	Agreed. Please note the regularity/frequency of inspections corresponds to the level of activity at site as per the plans submitted to the NWB.
Part H, Item 5b	The Licensee shall operate the Bulk Fuel Storage Facilities in accordance with all	The Licensee shall operate the Bulk Fuel Storage Facilities in accordance with all applicable	AANDC notes that Part H, Item 5b specifically references the old National Fire Code (2005) and	Agreed.

	applicable legislation, guidelines and practices, including:… b. *National Fire Code, 1995*, and…	legislation, guidelines and practices, including:… b. *National Fire Code, **2010**,* and…	recommends that the licence instead reference the most current version of the National Fire Code.	
Part I, Item 7	The Licensee shall notify the Board in writing, as soon as is practically possible, of any change in the status of the mine operations. This notice shall include a summary of Plans and a Schedule for anticipated activities related to the Care and Maintenance or the Final Closure of the Mine and associated infrastructure.	The Licensee shall notify the Board in writing, **at least ninety (90) days prior to** any change in the status of mine operations. This notice shall include **revised Plans, an updated reclamation cost estimate, an update in projected water use**, and a Schedule for anticipated activities related to the Care and Maintenance or the Final Closure of the Mine and associated infrastructure.	Part I, Item 7 requires the Licensee to notify the Board of any change in status (C&M or final closure). However, the condition does not include a timeline for submitting such notice. The notice should include full plan revisions rather than a plan summary. The notice should include a site assessment and an updated security cost estimate. The plans will require approval prior to implementation (Part B, Item 12) and it is expected that the security will be updated to reflect the environmental liability on site each time there is a change in the status of mine operations to care and maintenance or final closure of the mine.	This is an onerous request. Each notification should not require mandatory plan revisions. Plans are developed for each level of site activity (operations, C&M) and implemented accordingly.
Part I, Item 8	The Licensee shall notify the Board in writing, at least sixety (60) days prior to recommencement of the mining and milling undertaking on site. This notice shall include a summary of Plans and a Schedule for anticipated activities related to the change in status.	The Licensee shall notify the Board in writing, at least **ninety (90)** days prior to recommencement of the mining and milling undertaking on site. This notice shall include **revised Plans, an updated reclamation cost estimate,** and a Schedule for anticipated activities related to the change in status.	Part I, Item 8 requires the Licensee to notify the Board 60 days prior to recommencement of mine operations. As above, the notice should include plan revisions rather than a summary of plans, a site assessment and an updated security cost estimate. AANDC recommends the notification period be increased to 90 days to allow time for review and approval of plans and reclamation security changes.	This is an onerous request. Plans are developed and in place for each level of site activity (operations, C&M) and implemented accordingly. Plans should only be updated if there is a change in how the site is operated.
Part I, Item 9	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.	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 **regardless of whether the mine is in Operations or C&M status, according to a schedule approved by the Board**.	Part I, Item 9 does not require the Licensee to implement progressive reclamation (including progressive covering of tailings) unless it is "realistically possible". Considering the deteriorating conditions on the mine site, the licence should be changed to require progressive reclamation, with an implementation schedule clearly established for the period of the renewed licence, applicable whether the mine is in C&M or in operation status. The Licence should require the Licensee to cover and maintain a percentage of exposed tailings each year. See Section 1, Recommendation 3, above.	LMI has invested significant capital in the Lupin site with the goal of re-opening the mine when economic conditions improve in the gold mining sector. Requiring LMI to close out facilities that can be used in the future is an unreasonable request and would have a drastic and likely disastrous impact on the ability of LMI to execute on a re-start. Please note the response LMI has provided to AANDC/SENES in the written responses section concerning the area of tailings and remaining capacity of the facility available for use. Furthermore, LMI is not aware of any "deteriorating conditions" at the mine site. LMI have not encountered any and none have been brought to our attention.
Part J, Item 2	The Licensee shall provide the GPS co-ordinates, in degrees, minutes, and seconds of latitude and longitude, of all locations where	The Licensee shall provide the GPS co-ordinates, in degrees, minutes, and seconds of latitude and longitude **as well as the datum source (i.e NAD83),**	To ensure consistency, even when reporting in degrees, AANDC recommends that the licence either specify the datum (i.e. NAD83) to be used or	LMI can specify the datum source going forward.

	sources of water are utilized for all purposes.	of all locations where sources of water are utilized for all purposes.	require the Licensee to specify the datum when submitting GPS co-ordinates.	
Part J, Item 3	The Licensee shall determine the GPS co-ordinates, in degrees, minutes, and seconds of latitude and longitude, of all locations where wastes associated with camp operations and drilling operations are deposited.	The Licensee shall **provide** the GPS co-ordinates, in degrees, minutes, and seconds of latitude and longitude **as well as the datum source (i.e. NAD83),** of all locations where wastes associated with camp operations and drilling operations are deposited.	To ensure consistency, even when reporting in degrees, AANDC recommends that the licence either specify the datum (i.e. NAD83) to be used or require the Licensee to specify the datum when submitting GPS co-ordinates.	LMI can provide the datum source going forward.
Part J, Item 11	The Licensee is responsible for the monitoring during Care and Maintenance as set out in this Part. In the event the Licensee fails to carry out monitoring requirements set out in this Part that are essential to ensuring the integrity of significant site components, including fuel storage, general site deterioration, tailings containment, and site water and sewage management, Canada shall carry out such monitoring during periods of highest risk to fresh water.	The Licensee is responsible for the monitoring during Care and Maintenance as set out in this Part.	AANDC recommends that regular monitoring and site inspections be required both during operations and during care and maintenance. Extending the period of care and maintenance can potentially pose an increasing risk to the environment, particularly to water resources, and monitoring during care and maintenance is therefore important. Part J, Item requires Canada to carry out monitoring in the event the Licensee fails to do so. AANDC recommends that this term and condition be removed as it is not consistent with the AANDC Mine Site Reclamation Policy (2002), which clearly articulates the principle of Polluter Pays. The licence should be structured to put the onus for monitoring related to infrastructure and operations on the Licensee (the potential polluter) rather than on the taxpayers of Canada. The water licence can mitigate the concerns expressed in the previous amendment to 2AM-LUP0914 (May 2009) by requiring: permanent LMI presence on site during periods of highest risk to freshwater; progressive covering and cleanup of tailings; and other progressive reclamation (revegetation, removal of hazardous waste, etc.). AANDC will enforce the licence under the Act and will continue to conduct periodic compliance sampling in addition to water licence requirements. AANDC would have an obligation to step in should LMI abandon the site. In an abandonment scenario, AANDC would have access to financial security to conduct monitoring as and when required, otherwise, the onus should remain with the Licensee to carry out regular licenced monitoring requirements related to their own design and operation decisions.	The request to carry out the same level of monitoring during care and maintenance and temporary shutdown is onerous and does not account for activity levels and corresponding levels of water use and waste disposal during different periods. The level of risk noted by AANDC is determined by the geotechnical engineer who carries out annual inspections to which LMI responds. The level of monitoring required during care and maintenance, temporary closure, and operations are significantly different and are carried out in accordance with plans specific to those periods/scenarios. LMI is not agreeable to staffing personnel on a permanent basis at this remote site during period of care and maintenance. This is unnecessary and poses a significant and unacceptable health and safety risk. LMI respectfully submits that the NWB achieves protection of the receiving environment by setting discharge limits and not by guiding the staffing requirements for undertakings. Furthermore it should be noted that there has never been an incident at Lupin when in care and maintenance during the winter season. Furthermore water levels are carefully monitored and dealt with each year when necessary and all other elements of the operation reviewed.

Schedule A	"Care and Maintenance" in respect of a mine, means the status of the facility when the Licensee ceases production or commercial operation temporarily for an undefined period of time;	"Care and Maintenance" in respect of a mine, means the status of the facility when the Licensee ceases production or commercial operation temporarily for an undefined period of time. **Care and Maintenance status does not exempt the licencee from obligations to protect humans, wildlife, and the environment; or to maintain compliance with applicable laws and regulations, including licences, permits, and leases.**	AANDC recommends that the definition for 'Care and Maintenance' be updated to be consistent with the Mine Site Reclamation Guidelines for the Northwest Territories (INAC, 2007). It is also recommended that Licensee requirements during Care and Maintenance be made very clear, such as ensuring sufficient staff, equipment and supplies will be at the site for any maintenance or reclamation activities that may need to take place. Refer to Section 1.4 of the guidelines referenced above for recommended measures to be implemented during Care and Maintenance. See Section 1, Recommendation 18, above.	LMI is not agreeable to staffing personnel on a permanent basis at this remote site during period of care and maintenance. This is unnecessary and poses a significant and unacceptable health and safety risk LMI respectfully submits that the NWB achieves protection of the receiving environment by setting discharge limits and not by guiding the staffing requirements for undertakings. There is ample equipment on site in good condition, which is used each year, and LMI does ensure there are sufficient staff and contractors on-site for any maintenance or reclamation activities when required.

Table 2: Comments on LMI Responses to AANDC Completeness Review

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
AANDC 2.1 Windblown Tailings A formal plan and schedule to address monitoring, cleanup and control of windblown tailings: 1. Details of the windblown tailings monitoring plan, cleanup methodology, tailings surface stabilization plan, and schedule for implementation. This plan should include immediate steps that will be taken to stabilize the tailings. 2. A review of longer term interim solutions such as shallow cover to limit future tailings dust release.	In June and July 2014, LMI is undertaking an evaluation to address this concern. LMI will provide additional information to address AANDC's technical issue with respect to windblown tailings by the end of August 2014. However, LMI notes that tailings at site are under a water cover and the windblown dust may be emanating from the redundant tailings ponds that have been covered in the past with esker material and frozen. LMI will take samples to assess the material and based on that a plan would be developed, if warranted.	The issue of windblown tailings has been an historical concern. We look forward to the evaluation and action plan to be submitted by the end of August 2014.	LMI commits to submitting an evaluation and action plan in August 2014. AANDC requests that interested parties be provided an opportunity to assess the new information during the application process.	Please see LMI response to SENES 2.1.1.
AANDC 2.2 Water Balance and Freeboard Concerns over increasing pond levels, freeboard on the structures and the ability to manage additional runoff into the ponds. Under the current status with no water licence in force, it does not appear that LMI could gain approval to discharge water from the site. This represents a serious hazard which could lead to overtopping of and potential dam failure (and consequences). 1. A report that assesses the adequacy and basis for a 1 m freeboard. The assessment should revisit the water balance and design storms for evaluating water storage. 2. Justification for not routinely monitoring and reporting pond water levels. The justification should include science- and risk-based reasons for not monitoring all of the ponds on a weekly basis during the June/July season and weekly if pond levels rise to within 2m of the dam crest.	LMI agrees with the practical need to discharge water while the Licence is being renewed. Discharge is required to maintain adequate freeboard, minimize environmental risks and potential damage to Project infrastructure. LMI generally maintains the free board at 2+m below the berm height. At this time, LMI has filed an emergency amendment request with the NWB to the term of the Licence through to October 1, 2014 to discharge water that has collected within containments following freshet and manage water prior to freeze up so the site is prepared to receive snow melt during freshet 2015. The 1-m freeboard is the limit regulated in the water licence and its adequacy has not been an issue for the geotechnical inspections that are carried out annually. Furthermore, the 1-m was set based on a detailed design review from past operations and is generally standard throughout the world. Following freshet, when most water accumulates, facilities are generally decanted as needed to ensure there is adequate freeboard. Facilities at Lupin are inspected regularly during the open water	LMI has not completed an assessment of the adequacy of the 1-m freeboard for this remote site (which is often times unattended). The concern relates to the ability to store runoff from extreme events in the event that the ponds are near the 1-m freeboard limit. This could occur during an extreme rainfall event or heavy spring thaw in combination with an extreme rainfall event. With no spillways, perimeter dams could be at risk of failure. A 1-m freeboard is by no means a world-wide standard. Freeboards are determined based upon detailed water balances, wave run-up analysis and sensitivity of receiving waters. The 1-m freeboard was assessed 40 years ago with limited data and may or may not be suitable, especially with no final spillway. Typically one would assess: • Capacity to store a wet year of runoff at the end of the season if the	AANDC maintains that a one-meter freeboard may not be sufficient during C&M if there is no continual presence of staff on site and that LMI therefore complete an updated assessment to determine an appropriate freeboard which should based on detailed water balances, wave run-up analysis and sensitivity of receiving waters.	LMI is committed to maintaining the 1 m freeboard requirement even during care and maintenance periods and therefore this request is not warranted in this circumstance. There are annual geotechnical inspections and there has never been any issues raised on freeboard. In fact, it is LMI's policy to maintain a minimum of 1.5m free-board on all external tailings dams and this is recorded in each annual geotechnical inspection.

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
	period (monthly) and prior to freeze up to ensure there is sufficient capacity to handle to following year's freshet. Facilities are decanted as needed, meeting effluent quality criteria, and the freeboard limit of 1-m has generally been met.	pond was not drained • Additional storage to store the probable maximum runoff • Additional freeboard to account for wave run-up during high wind events.		
AANDC 2.3 New Effluent Limits AANDC requests that LMI conduct a review of past effluent treatment performance and propose new effluent limits where appropriate. The review and proposed limits should be presented in a report.	LMI is committed to continual improvement and continues to monitor the Lupin mine along with the potential for identifying additional resources through its exploration activities. The Lupin mine has discharged effluent since the 1980s according to the effluent quality criteria included in Licences for the protection of the receiving environment, and based on the monitoring carried out to date the effluent quality criteria has achieved protection. Should operations recommence LMI will look to continually improve operational performance as part of best management practice, however the existing effluent limits are anticipated to remain applicable.	LMI was not responsive to the request.	AANDC maintains that effluent treatment objectives should be reviewed prior to the mine resuming operations, considering anticipated changes to MMER standards.	There is no basis to modify the effluent quality criteria at this time. In the event MMER is modified those changes are likely to apply to the Lupin mine at that time irrespective of the water licence.
AANDC 2.4 Water Use / Recycling of Water AANDC requests that LMI provide an explanation as to why a water recycling approach is not considered if production is resumed on site.	LMI will evaluate the potential to recycle water and the effect this could have on the mill process and ore recovery if the mine is put back in operation. However, based on past water volumes used during operations, LMI requests that the current permitted volume be maintained based on previous volumes required for mining operations. LMI's review of the water balance to date sees no clear option to reduce water usage at this time.	LMI states its review of the water balance sees no clear option to reduce water use but provides no explanation. The question is why would reclaim water use not reduce fresh water use? Effectively, this suggests that the quality of the water discharged from the tailings pond is not of acceptable quality to use in the process but suitable for discharge to the environment.	AANDC encourages water recycling as a means to reduce the volume of tailings water produced and stored on site and looks forward to the evaluation of the potential to recycle water during operations. It is expected that this evaluation will be submitted to the Board prior to restart of mine operations. See comment in Table 1.	See LMI original response. LMI take umbrage with the SENES suggestion that ", this suggests that the quality of the water discharged from the tailings pond is not of acceptable quality to use in the process but suitable for discharge to the environment.". There was a detailed water balance completed for this operation- it operated for 20 years without any issue, if more water could be recycled it would because fresh water requires more power and pumping capacity so it would be inefficient not to use more recycle water if one could do so. Furthermore, any water discharged to the environment is only done once it meets or exceeds receiving water quality as mandated

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
				by law.
AANDC 2.5 Reclamation Cost Estimate – Long-term Care and Maintenance Costs Update to the RECLAIM model to reflect costs for long-term inspection, monitoring, and care and maintenance. The cost estimate also does not appear to have any allowances for final spillway construction, removal of gated control valves, dam breeching or remedial works to dams (e.g., rip-rap addition), as outlined in the closure report or additional cover material required adjacent to the dams to assure the saturate tailings concept is successful. There are areas where inadequate costs are provided. These are: 1. Costs for long-term inspection, monitoring, and care and maintenance. This is a material deficiency as this site will require long-term inspection, monitoring, and care and maintenance well beyond the 5 years allowed for in the current estimate. Ongoing maintenance of covers, spillways, dams, etc. will be required, and at no time can this site with engineered dams and hydraulic structures be abandoned. Perpetual inspection and monitoring of the site will be required and costs must be reflected in the reclamation estimate. 2. The cost estimate also does not appear to have any allowances for final spillway construction, removal of gated control valves, dam breeching or remedial works to dams (e.g., rip-rap addition) as outlined in the closure report, or additional cover material required adjacent to the dams to assure the saturate tailings concept is successful.	LMI provided an updated reclamation cost estimate to the NWB in April 2013, included with the 2012 Annual Report. In June and July 2014, LMI is undertaking a re-evaluation of the reclamation cost estimate. LMI will provide additional information to address AANDC's technical issues on closure costing by the end of August 2014.	Please refer to SENES Technical Review addressing the LMI relicensing submission for details of the deficiencies in the costs. We look forward to LMI's updated RECLAIM estimate.	The Department looks forward to the updated reclamation cost estimate in August 2014. It is expected that it will address concerns identified in the Technical Memo and attached SENES Report. AANDC requests that interested parties be provided an opportunity to assess the new information presented during the application process.	LMI is committed to work with AANDC on the review of the reclamation cost estimate leading up to the hearing. LMI requests a copy of the AANDC detailed RECLAIM estimate. LMI can provide its estimate as well.

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
3. There is no provision for repair and upgrading of existing soil covered areas where cover depth is inadequate. 4. As a minimum, a second post closure EEM is also likely required. AANDC requests that LMI provide an updated reclamation cost estimate that includes long-term costs for care, monitoring, maintenance and inspection of the site. Additional deficiencies may be identified once a complete technical review is completed.				
AANDC 2.6 Hydrocarbon Remediation Plan A formal plan and schedule to address the management and cleanup of hydrocarbon contaminated soils – AANDC recommends that LMI submit a revised Waste Management Plan. Specific requirements for the management of hydrocarbon soils should include: 1. A monitoring program to define the extent and characterization of hydrocarbon contaminated soils, 2. Program and schedule for management of the contaminated soil, and 3. Siting and design of a landfarm (should on-site management of the material be selected).	A Waste Management Plan (WMP) was submitted to the NWB in March 2013, included as part of the 2012 Annual Report. Regarding landfarming, Section 7 of the WMP states that soils contaminated from spills of petroleum products (including diesel, gasoline, oils, used oil, and grease) will be remediated to the CCME Canada Wide Standards for Petroleum Hydrocarbons in Soil, which have been adopted by the Government of Nunavut in the Environmental Guideline for Contaminated Site Remediation (2009). At present, as part of care and maintenance, LMI continues to collect on an ongoing basis any hydrocarbon impacted soil when encountered and places it in sealed drums to be backhauled whenever possible on return flights for processing at a third party facility. Drums are stored in a lined storage area until they can be backhauled to mitigate environmental risks. While soil management has been considered and included in the reclamation cost estimate (2012 Annual Report), LMI's preferred approach is to backhaul materials as landfarming requires considerable infrastructure and is challenging given the short duration of the summer period. Further, LMI has indicated in the March 2013 Abandonment and Restoration Plan, that the West Zone crown pillar, which was mined	LMI did not provide a response to items 1) and 2). Regarding item 3) the Hydrocarbon Soils Management Plans suggests that on-site treatment in using landfarming is preferred while this response suggests that LMI prefers to back-haul material for off - site disposal.	See Recommendation 5 above, and proposed changes to Part E, Item 14 in Table 1 above.	See LMI response to SENES 2.1.3.

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
	between 1996 and 2004, has been left open for the future disposal of demolition debris and soils. However, in the event landfarming is determined to be feasible, LMI suggests that a stand-alone Landfarm Management Plan be provided to the NWB prior to construction.			
AANDC 2.7 Hazardous Waste Management The removal of the historic inventory of hazardous waste from the site. The management plans call for removal of the waste from site but large inventories continue. AANDC recommends that LMI update the management plans for hazardous waste to include the location and design of the storage facility and provide a schedule for removing the inventory of hazardous waste.	LMI takes every opportunity to backhaul hazardous waste from the site. Progressive reclamation activities during 2013 consisted of backhauling 51 mega bags of waste from the site. LMI agrees that the WMP should be clarified to indicate that hazardous wastes that are stored pending backhauled are to be stored in sealed drums in designated areas. LMI has noted this clarification and will include it in the next iteration of the WMP.	LMI has not provided an inventory of hazardous materials or a schedule for removing hazardous materials from the site.	AANDC requested LMI to provide an inventory of hazardous materials and that the inventory be updated annually and submitted in annual reports. See proposed licence condition regarding a schedule for removing hazardous materials in Table 1.	While LMI can provide an inventory of hazardous waste stored securely within the lined containment area at site, LMI does not agree that a schedule is required for removal of the material and it is not feasible to have all waste backhauled in every year and is the reason why there is a storage facility at almost all mine sites. Every effort is made to backhaul waste on available flights.
AANDC 2.8 On-Site Landfill AANDC notes that the on-site landfilling of waste is not authorized under the current water licence, and as such all waste must be removed from site. Section 5.2 of the current Waste Management Plan (LMI, 2013) suggests an application for an on-site landfill will be requested but this has not yet been received. AANDC requests an update from LMI on the status of an application for an on-site landfill.	As noted in the March 2013 WMP, non-combustible, non-hazardous materials were historically placed within the landfill area at site and constantly kept covered. One burn pit is located on site adjacent to the landfill, and a second one is at the north end of the site. Historically, combustible non-hazardous, non-domestic waste was open-burned at these designated locations. The landfill at site has been used in the past on a regular basis and is included in previous versions of the WMP. LMI requests to continue to utilize the landfill and burn pits, and requests that these activities be included specifically in the Licence renewal to clarify the perception of a permitting issue noted by AANDC. This clarification will facilitate the progressive reclamation of the site. A WMP was previously submitted to the NWB for approval in March 2010 by MMG Canada as Appendix A of its Care and Maintenance Plan in accordance with Part I, Item 2 of water licence 2AM-LUP0914. This plan proposed the same landfill operations.	It appears that LMI will submit an application Landfill Management Plan by the end of July 2014.	LMI committed to submitting a Landfill Management Plan in July 2014 but it has not yet been received by AANDC. AANDC requests that interested parties be provided an opportunity during the technical review to assess the new information.	This plan was submitted to the NWB on July 31, 2014..

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
	The NWB distributed the Care and Maintenance Plan including its Appendices to interested parties for review and comment on October 13, 2010 and by November 12, 2010 comments were received from AANDC, EC, and the KIA. AANDC recommended that if the facility is to be used, a plan be submitted by the Licensee. LMI will submit a Landfill Management Plan by the end of July 2014.			
AANDC 2.9 Updated Compliance Plan A formal updated Compliance Plan to be approved by the Inspector. A Compliance Plan was submitted in October 2012 and updated in October 2013 to address all non-compliant conditions in the licence. The plan is now out of date and many of the commitments made in 2012 have not been met (e.g., maintenance and repairs to dam structures, windblown tailings actions). AANDC recommends that LMI update the Compliance Plan and adhere to proposed schedules for action. This plan must be prepared in conjunction with and approved by the Inspector.	LMI provided an updated Compliance Plan with the 2014 renewal application. Please see attached for your reference.	The compliance plan submitted was competed in 2013 and is outdated. It is not known whether many of the actions proposed for 2013 and 2014 were completed.	According to the July 15, 2014 AANDC Inspection Report (see attached), the changes discussed with LMI regarding the compliance plan were never incorporated into the plan and submitted to the NWB, a number of items were not accurately reflected in the plan, and commitments have not been completed. AANDC recommends that the Compliance Plan be updated to address Inspector's concerns and that it be approved by the Inspector and by the Board prior to renewing the Type A licence.	It is unclear which issues have not been addressed. Without this detail LMI cannot comment on whether an updated compliance plan is required. To LMI's knowledge the issues have either been addressed or clarified with context during this renewal process.
AANDC 2.10 Unattended Site The mine is currently under Care and Maintenance, however, during much of the year there is no presence at the site. AANDC notes that this is contradictory to the 2007 Mine Site Reclamation Guidelines (AANDC, 2007) which requires personnel on-site to fulfill all the monitoring requirements. If the site is unattended, it is not actually in care and maintenance. This greatly increases the risk that unplanned events could lead to contamination of the environment. The site contains valuable infrastructure (buildings, fuel farms, sewage ponds, hazardous waste storage, tailings dams and ponds), all of which require care and maintenance. With no	There are many sites that effectively carry out care and maintenance without a constant presence at remote locations, and established close out procedures are followed specifically for this purpose.. LMI acknowledges that a site presence is required on a 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, LMI carries out monthly inspections from May to October [This is the frequency noted in the table of updates submitted with the application] and a comprehensive annual geotechnical inspection by a third party. LMI	LMI has not responded to the comments and concerns raised by AANDC. LMI cannot meet its own commitments in its management plans, water licence monitoring requirements or the 2007 Mine Site Reclamation Guidelines (AANDC, 2007) with an unattended site.	Refer to recommendation 18 above.	There is on-going confusion between the application of the licence conditions during operations vs care and maintenance. This is an administrative issue that LMI requests the NWB clarify through the approval of the plans submitted for care and maintenance. LMI is not agreeable to staffing personnel on a permanent basis at this remote site during periods of care and maintenance. This is unnecessary and poses a significant and unacceptable health and safety risk LMI respectfully submits that the NWB achieves protection of the receiving

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
presence on site, spills could go undetected for weeks: AANDC recommends permanent presence at the site. As mentioned earlier Care and Maintenance according to the 2007 Mine Site Reclamation Guidelines (AANDC, 2007) requires personnel to be on-site to fulfill all the monitoring requirements. If the site is unattended, it is not actually in care and maintenance.	also complete upgrades when deemed appropriate. 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. 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. 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.			environment by setting discharge limits and not by guiding the staffing requirements for undertakings
AANDC 3.0 Licence Updates Schedule B, Item 1 (m) and Part I, Item 3: LMI has requested the frequency for preparing annual reports and reclamation cost assessments be reduced to once every three years. We see no need nor benefit for reduced reporting frequency.	LMI will adhere to the annual reporting in regards to the annual report. However, LMI understands that an update to the reclamation cost estimate may not be required every year where facilities and costs remain substantially unchanged. In these cases the estimate would be updated based on acceptable inflation indices particular for the location.	LMI has agreed to annual reporting.	AANDC agrees that reclamation assessments could be conducted in three year intervals while the mine is in C&M, but should be conducted annually during Operations.	LMI submits that the requirement for a reclamation cost update every 3 years is arbitrary and onerous. Costs updates must be based on changes to the site infrastructure (new features or progressively reclaimed features) or if there are significant changes in labour, or unit costs to carry out the work.
Part A, Items 12-16: LMI would like to remove or update general conditions regarding plans such that project activities are not hindered or delayed due to timing of approval. The requirement to submit, revise, and update plans is necessary and AANDC recommends that the applicant submit required plans and updates well in advance of resuming activity in order to prevent delays and hindrances	LMI generally agrees with the requirement to submit, revise and update plans according to the Licence. LMI submitted updates to a number of plans in April 2013, which have not been formally approved by the Board	LMI has agreed.	AANDC accepts LMI's commitment.	Agreed.
Part E, Item 6 (f): LMI has indicated weekly inspections are not practical for the site while under Care and Maintenance. They have requested that inspections be carried out on a bi-weekly basis during freshet (approx. May	To clarify, SRK suggested in the 2013 Geotechnical Inspection Report that LMI submit a request to the Nunavut Water Board for an amendment to the schedule. Given the lack of mining activities and loading, SRK	LMI is correct that SRK changed their 2012 recommendations in 2013 to be in accordance with LMI's request for biweekly inspections during freshet, and monthly	AANDC maintains that the monitoring frequency required under 2AM-LUP0914 should be continued because the SRK report appears to be based upon the assumption that the	Fuel is stored in lined and bermed engineered facilities that are inspected by a geotechnical engineer on an annual basis and based on those inspections does not pose a risk to the

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
and June), and monthly during the remainder of the open water period. AANDC does not support this request. As a minimum, the inspection frequency should be as specified in the SRK 2012 Geotechnical Dam Inspection Report which states that pond water levels be monitored weekly during the freshet and weekly during the open water period if pond levels were allowed to rise. Also see recommendation under section 2.10 regarding definition and obligations while under Care and Maintenance.	suggested that a schedule consisting of bi-weekly inspections during freshet, and monthly inspections for the remaining open water period would be adequate. In the event water levels in the ponds are allowed to rise, then inspections should be carried out bi-weekly. However, given that containment areas are generally decanted early in the year, preventing the accumulation of water, monthly monitoring is adequate. Regarding the interpretation of care and maintenance from the noted guideline, LMI carries out activities and third party inspections as needed to ensure the site is secure and stable, and maintains a security deposit with AANDC. However, once scheduled care and maintenance activities are carried out and the site is secured, there is no need to maintain personnel on site until the next scheduled visit. Maintaining a crew at the remote site indefinitely presents safety hazards, and would require that facilities continue to operate which requires more fuel and increases hazards.	inspections for the remaining open water period. This was understood to be based upon the assumption that the ponds would be drained which, to our understanding, has not occurred. LMI also indicates it is risky to have a crew at the remote site as it would "require that facilities continue to operate which requires more fuel and increases hazard". It is understood that at this time there are more than 2 million litres of hazardous fuel at the site. There is a Fuel Management Plans in place, but it has not been followed.	ponds would be drained which, to our understanding, has not occurred and because there is more than 2 million litres of hazardous fuel on site and the fuel management and spill contingency plans do not appear to be followed.	environment. Water that collects within the containment area is tested and discharged to the environment as needed. Recently water was not discharge because LMI was instructed by AANDC that it was prohibited to carry out the licence obligations once the licence expired pending renewal. Please also see LMI response to SENES 2.2.2.
Part H, Item 6: LMI would like the requirement of weekly fuel storage monitoring to be reduced. AANDC recommends that LMI examine alternatives such as remote monitoring with video surveillance and product level monitors before such a request is considered. Also must be in compliance with Environment Canada regulations and monitored for a period of time to ensure proper installation.	LMI will investigate the feasibility of remote video monitoring by the end of July 2014.	LMI has agreed to investigate remote monitoring	AANDC accepts LMI's commitment. AANDC requests that interested parties be provided an opportunity to assess the new monitoring plan during the application process.	LMI has investigated remote video monitoring and understands that there are power challenges during the extended dark winter period. However LMI will continue to assess options and the feasibility of this approach with the supplier.
Section 5.2, Waste Management Plan (LMI, 2013): LMI states that non-combustible and non-hazardous materials have been historically disposed in a landfill and they propose to continue utilizing the landfill for the disposal of solid waste. This proposed change was not identified in the table provided by the applicant but it is a proposed change to the scope of the water licence and should be taken	To clarify, the use of the landfill was noted as a site waste management practice in the WMP submitted in 2009 and has been used frequently in the past and was considered as part of previous applications and plans. Its omission from the current Licence appears to be an administrative issue rather than an issue of scope. While the landfill has not been operated in recent years, LMI requests that the	It appears LMI will submit a licence application for an on-site landfill by the end of July.	AANDC agrees that the licence should acknowledge the landfill facility and the Department looks forward to the landfill management plan. As above, it is requested that interested parties be provided an opportunity to assess the new information presented during the application process. See	To clarify, the landfill is not subject to a separate application. LMI submitted the Landfill Management Plan inclusive of open burning protocol to the NWB.

AANDC Comments	LMI Responses	SENES Comments	AANDC Comments	LMI Response October 10, 2014
into consideration.	Licence renewal acknowledge the facility to address the perception of a permitting issue. LMI will submit a landfill management plan by the end of July 2014.		recommendation 5 above.	