

AANDC Comments and Information Requests

AANDC 2.1 Wind Blown 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.

LMI Response:

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 wind blown tailings by the end of August 2014.

However, LMI notes that tailings at site are under a water cover and the wind blow 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.

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 Response:

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 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.

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 Response:

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.

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 Response:

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, 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.

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.
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.

LMI Response:

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.

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).

LMI Response:

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 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 waste inventories continue to rise.

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 Response:

LMI takes every opportunity to backhaul hazardous waste from the site. Progressive reclamation activities during 2013 consistent 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.

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.

LMI Response:

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.

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 Response:

LMI provided an updated compliance plan with the 2014 renewal application. Please see attached for your reference.

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 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.

LMI Response:

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 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.

AANDC 3.0 Licence Updates

AANDC Comment

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 Response:

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.

AANDC Comment

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 Response:

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.

AANDC Comment

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 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.

LMI Response:

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 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.

AANDC Comment

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 Response:

LMI will investigate the feasibility of remote video monitoring by the end of July 2014.

AANDC Comment

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 into consideration.

LMI Response:

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 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.

EC Comments and Information Requests

EC 1

In response to the question (Question #13 of the Application for Water Licence Renewal) to provide the estimated quantity(/ies) of water to be used from each source, the Proponent states that the source of water and quantity would be Contwoyto Lake only, 4,657 m³/day (1,700,000 m³/yr). Furthermore, the proponent provides the following breakdown, again a response to the question, to “Provide the estimated quantities to be used for each purpose (camp, drilling, etc.):”

- Camp: 260m³/day; and
- Mining / Milling: 4,397 m³/day

It is understood that the Project is under Care and Maintenance. If this is correct, why is there a water allocation for mining? It has been suggested that these numbers are production levels; however EC notes that the level of intended water withdrawal does not match the level of activity. EC suggests that the water withdrawal should be scaled back to the level of activity being licenced.

LMI Response:

The Lupin mine operated between 1982 and 2004 with periods of care and maintenance in between. 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. To date the company has spent in approximately 25 million dollars, including equipment purchases, upgrades, maintenance, administrative items, contractors, and drilling. In 2011, LMI commenced detailed work on re-opening Lupin, including the completion of detailed inspections of mill and infrastructure and re-started certain equipment. LMI purchased a small mining fleet and had bank debt available for completion of work leading up to a re-start of operations. With the collapse in gold price from +\$1,500/oz to \$1,100/oz, this plan was put on hold. However, with the recent increase in gold LMI continues to study re-start of the mine. Given the existing mining facilities in place, a transition back to operations can occur quickly and the Type A Licence is required on hand to regulate the use of water and deposit of waste should the mine return to operations as it has in the past.

EC 2

The licence term requested is for 10 years, and rather than continuing to reclaim the site to full closure, the Proponent is holding the property in Care and Maintenance. The 2013 Care and Maintenance Plan indicates some expectation of a return to production, but that possibility is quite remote and would involve significant work to re-commission the tailings disposal system, the mill, the camp, and probably even some of the equipment, some of which is approximately 30 years old. For project components which would not foreseeably be recommissioned in the event of a return to production, EC encourages ongoing reclamation efforts and reporting of such closure activities.

LMI Response:

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. A decision to close the mine has not been contemplated and in the interim, the site remains in care and maintenance. LMI has carried out care and maintenance work in each year since taking ownership of the property including repairs to berms, roads, effluent monitoring and discharge, and carrying out inspections to ensure facilities are stable. LMI notes that significant work was carried out in the late 90s and early 2000 to bring the site back into production, and it is not ruling out a similar option. In the event the mine is put back into operations, LMI acknowledges that an update on the specifics of operations would be provided, which may or may not affect the existing Licence.

EC 3

If the Proponent is contemplating changes to activities or operations at the site which are outside the scope of approved Care and Maintenance or exploration, detailed plans should be submitted to the NWB for approval, prior to initiating any activity in support of mine production.

LMI Response:

LMI will notify the NWB as soon as practically possible of any change in care and maintenance status.

EC 4

The March 2013 Water Quality Monitoring Plan and Quality Assurance/Quality Control Plan contains a description of the current sampling program. The annual report should include a full report of the required monitoring done each year.

LMI Response:

Monitoring results are typically provided in monthly reports and annual reports, and made available on the NWB ftp site. LMI will contact EC to discuss the information being requested.

EC 5

Comments Related to Migratory Birds and Species at Risk

LMI Response:

LMI acknowledges the comments related to Migratory Birds and Species at Risk.