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Nunavut Regional Office
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November 27, 2014

Lupin Mines Inc.
#1204-700 West Pender St.
Vancouver, BC V6C 1G8

RE: INSPECTOR'S RESPONSE TO LMI OCTOBER 31, 2014 SUBMISSIONS AND OUTSTANDING REQUIREMENTS OF THE 2014 INSPECTION OF 2AM-LUP0914 (EXPIRED).

Mr. Downey,

On October 31, 2014 I received correspondence from Ms. Karyn Lewis on your behalf in response to the outstanding requirements resulting from the 2014 water licence inspection. To determine whether requirements have been met, I have gone back to the inspection report, dated August 5, 2014. Six actions were required of LMI as a result of the inspection:

1. Water level of the lower sewage lagoon is to be monitored following rain events or at least monthly. Discharge may only occur with a valid licence in place.
2. An updated inventory of hazardous waste is to be submitted to the inspector and reported in the Annual Report.
3. All new hazardous waste is to be backhauled in the year it is created to prevent further accumulation of waste, and a portion of the historic waste. Quantities and type of waste backhauled is to be reported in the Annual Report.
4. A geotechnical inspection is to be conducted on all engineered water management structures, including but not limited to: Main and Satellite Tank Farms, Upper and Lower Sewage Lagoon, and waste containment areas. The engineer's report is to be submitted to the NWB and to the Inspector by October 31 2014, accompanied by a plan and timelines to implement the engineer's recommendations.
5. The uncovered tailings shall be covered according to the engineer's specifications and any applicable operating plan, and tailings/cover blown out of the TCA is to be replaced in the TCA and permanently encapsulated. This is to be completed and a report submitted to the Inspector by October 31 2014.
6. All contaminated material from around the STF is to be removed as per the Spill Contingency Plan. An investigation as to the origin of the contamination is to be undertaken, and the STF berm is to be assessed by a qualified engineer. A report is to be submitted to the Inspector by October 31 2014 demonstrating a) the engineer's findings, b) that the spill is cleaned up and c) that the necessary work to prevent further contamination has been completed.

I will address the items in turn:

1. *Water level of the lower sewage lagoon is to be monitored following rain events or at least monthly. Discharge may only occur with a valid licence in place.*



The need to discharge the lagoon was addressed by way of the Direction issued September 8, 2014. Following the direction, a detailed update (date and volume of decant) was requested by the Inspector on September 22, for submission by October 10, 2014. LMI provided a volume on October 31, 2014 of 112,000 m³, but did not provide the dates that the decant was undertaken. I later gleaned the dates (September 15-18 2014) from the Discovery Mining Services Report, dated September 22 2014, embedded within the "2014 Sewage Pond Dams Geotechnical Inspection" received on November 4, 2014. From this report, it is understood that the syphons were left actively draining when DMS left site. In this regard, the decant figure provided was an estimate based on water levels. I will accept the estimate in this case; for future decant events please use a meter for accuracy.

THIS ISSUE IS RESOLVED.

2. *An updated inventory of hazardous waste is to be submitted to the inspector and reported in the Annual Report.*

This inventory is to be submitted with the Annual Report on or before March 31, 2015. In the interim, I requested, and received, waste manifests for 2010-2014.

RESOLUTION OF THIS ITEM IS PENDING UNTIL THE SUBMISSION OF THE ANNUAL REPORT.

3. *All new hazardous waste is to be backhauled in the year it is created to prevent further accumulation of waste, and a portion of the historic waste. Quantities and type of waste backhauled is to be reported in the Annual Report.*

RESOLUTION OF THIS ITEM IS PENDING UNTIL THE SUBMISSION OF THE ANNUAL REPORT.

4. *A geotechnical inspection is to be conducted on all engineered water management structures, including but not limited to: Main and Satellite Tank Farms, Upper and Lower Sewage Lagoon, and waste containment areas. The engineer's report is to be submitted to the NWB and to the Inspector by October 31 2014, accompanied by a plan and timelines to implement the engineer's recommendations.*

The Geotechnical Report and cover letter for the TCA were received on October 21 2014. The Reports on the Sewage Lagoons and Fuel Storage Areas were received on November 4, but were not accompanied by plans/timelines to implement the recommendations as requested by the Inspector. No report was submitted for waste containment areas.

THIS ISSUE IS NOT RESOLVED. LMI IS TO IMPLEMENT THE ENGINEER'S RECOMMENDATIONS WITH RESPECT TO THE INTEGRITY OF THE FUEL STORAGE AND SEWAGE LAGOON FACILITIES. THIS WORK IS TO BE CARRIED OUT IN 2015, REPORTED TO THE INSPECTOR UPON COMPLETION, AND REPORTED IN THE 2015 ANNUAL REPORT.

5. *The uncovered tailings shall be covered according to the engineer's specifications and any applicable operating plan, and tailings/cover blown out of the TCA is to be replaced in the TCA and permanently encapsulated. This is to be completed and a report submitted to the Inspector by October 31 2014.*

The Licensee has refused to carry out progressive reclamation of the TCA, despite it having been a condition of the licence since its issuance in 2009, and repeated instructions to do so by Inspectors.



THIS ISSUE REMAINS UNRESOLVED AND WILL BE ESCALATED FROM VOLUNTARY COMPLIANCE TO ENFORCEMENT ACTION IN SEPARATE CORRESPONDENCE.

The Licensee has also refused to return the tailings/cover that has blown out of the TCA to the TCA as instructed. Moreover, the Licensee was provided the opportunity to prove that the material blown outside the TCA is esker material rather than tailings as outlined in the Inspector's response of October 1, 2014, and refused to conduct the sampling by the November 15 2014 deadline.

THIS ISSUE IS TREATED IN DETAIL BELOW UNDER ITEM 7(c).

6. *All contaminated material from around the STF is to be removed as per the Spill Contingency Plan. An investigation as to the origin of the contamination is to be undertaken, and the STF berm is to be assessed by a qualified engineer. A report is to be submitted to the Inspector by October 31 2014 demonstrating a) the engineer's findings, b) that the spill is cleaned up and c) that the necessary work to prevent further contamination has been completed.*

The Licensee has failed to remedy this spill as required by the Inspector.

The "verification" provided on October 31 was not acceptable to the Inspector. Further documentation was requested of LMI and two documents were provided on November 4, 2014: "Addendum Memo 2014 Lupin Fuel Tank Farm Inspection" and "2014 Sewage Pond Dams Geotechnical Inspection". According to the Discovery Mining Services (DMS) Report, dated September 22 2014 (embedded within the Sewage Pond geotechnical report), the main valve to/from the STF was leaking due to a cracked gasket and was repaired on September 17 2014. This leak could be the cause of the spill in question, however, is inconsistent with LMI's "independent expert review" as quoted in LMI's August 25 correspondence that it "was likely a spill when the STF tanks were being filled some time in the past".

The assessment of the tank farms included only a brief visual inspection by an engineer, and no actual physical testing. The three-paragraph report can be summarized by the engineer's statement: "Engineering judgment suggests the water ponding in the tank farms indicates that the liner is unlikely to be compromised by damages in the bottom of the tank farms." I can accept the logic of the statement, particularly now given the findings of the DMS report indicating that the valve was leaking.

AS A RESULT OF THESE FINDINGS, AN UPDATE TO SPILL 12-306 IS TO BE FILED WITH THE 24-HOUR SPILL REPORTING LINE CLARIFYING THE NEW UNDERSTANDING OF THE ACTUAL SPILL (IT WAS FIRST DESCRIBED AS AN "OVERTOPPING"; MIXTURE OF OIL AND WATER) AND INDICATING THE ADDITIONAL VOLUME OF DIESEL THAT MAY HAVE LEAKED SINCE THE ORIGINAL REPORT OF JULY OF 2012.

I AM SATISFIED THAT ITEMS A) AND C) HAVE BEEN ADDRESSED. ITEM B), THE CLEANUP OF THE SPILL, IS TO BE UNDERTAKEN BY AUGUST 31, 2015 AND A REPORT SUBMITTED TO THE INSPECTOR BY SEPTEMBER 30, 2015. THIS WORK IS TO BE UNDERTAKEN WHETHER OR NOT A LANDFARM IS APPROVED IN THE NEW LICENCE.

7. *Other comments/issues have arisen out of the Inspection Report and follow-up discussion:*

- a) *Numerous barrels were noted at the shacks down the road from the quarry.*



LMI's response October 31, 2014: *"per AANDC's response to Agnes and John at that technical meeting, AANDC clearly stated that they are not concerned about any outposts that are located on crown land at the Lupin site."*

The comment made by Karen Costello Director of Resource Management at AANDC at the technical meeting is taken out of context. The discussion at the TM/PCH revolved around tenure of the land, and Karen spoke in a licensing context (that AANDC did not see it as a breach of Lease to have outpost camps on the Crown Lease). She was not addressing, and does not have the authority to speak to, compliance issues related to the inspection.

LMI IS TO DEMONSTRATE WHETHER OR NOT THE SHACK IS LOCATED ON A CROWN LEASE. IF THIS IS THE CASE, AS WITH THE WSC BARRELS THAT WERE FOUND ON-SITE IN 2014, IT IS LMI'S RESPONSIBILITY TO ENSURE THAT ACTIVITIES CONDUCTED ON THE LEASE CONFORM TO REGULATORY REQUIREMENTS.

- b) *There is a steady flow from Upper Sewage Lagoon to the Lower Sewage Lagoon (LSL) through a collapsed and rusted culvert.*

LMI's Response August 25, 2014: *"The culvert referred to in the report between the upper and lower lagoon is part of the design and although rusted it is still operating as designed."*

The geotechnical report received on November 4, 2014 indicates "this culvert is heavily corroded and partially filled with sand, and recommends periodic inspection and monitoring of seepage rate."

LMI IS TO IMPLEMENT THE ENGINEER'S RECOMMENDATION AND REPORT ANNUALLY ON THE STATE OF THE SEWAGE LAGOON FACILITIES.

- c) *The Plan for Compliance:*

Originally created in 2012 and updated February 28 2014 for the renewal of 2AM-LUP0914. The original Plan for Compliance was submitted in 2012 as a requirement of the Inspector in order to work towards voluntary compliance. The Plan has not been an effective tool for gaining compliance; LMI has disregarded deadlines and their own commitments and has failed to carry out a significant portion of the work. In addition, some issues have 'fallen off the table' since 2012 (do not appear in the 2014 Plan). My comments with respect to the Plan are appended in a separate document. This plan is not accepted by the Inspector, however, a new plan is not sought at this time: the remaining issues will be addressed through other means as voluntarily compliance has not been a successful approach.

An outstanding issue with respect to the 2012 Inspection that appears in the Plan for Compliance was the requirement to update the Environmental Site Assessment:

From LMI's December 27, 2012 letter to the Inspector: *"To adequately satisfy AANDC's request for a risk assessment of legacy hazards and contamination issues, LMI agreed to provide an addendum to the Lupin Environmental Site Assessment (ESA) dated 2006 as noted in its Plan for Compliance, dated October 2012 (Part H, Item 3). This assessment will prioritize risks to the receiving environment; determine the mechanisms that could cause contamination to leave the site footprint assess whether or not contamination is present or occurring; and determine mitigation measures to prevent further contamination. Due to the amount of work involved to satisfy the risk assessment requirement it was not logistically possible to complete it by September 15, 2012 or in advance of the October 31, 2012 Plan for*



Compliance deadline to inform the Plan for Compliance. As such, LMI focussed its immediate attention on timely completion of the requested Plan for Compliance and agreed to submit the ESA addendum as part of the 2012 Annual Report by March 31, 2013. LMI has contracted this work to its consultants who are actively working towards the March 31, 2013 submission date."

No such report has yet been received. On October 1 2014, I requested clarification on whether the ESA update was undertaken, and when the results would be available. No response was given in LMI's subsequent correspondence. The 2014 Plan for Compliance indicates simply that it will be undertaken "prior to recommencing mine operations". This is not acceptable to the Inspector. The Inspector is empowered as per Part J item 8 of the licence to request additional monitoring. The Licensee has failed to comply.

THIS ISSUE REMAINS UNRESOLVED. THE OUTSTANDING WORK IS TO BE UNDERTAKEN IN 2015 AND WILL INCLUDE THE WORK ON THE TCA AS DISCUSSED IN ITEM 5. IT IS NOT NECESSARY THAT THE WORK BE CONDUCTED SPECIFICALLY AS AN ESA, BUT MUST MEET THE REQUIREMENTS SET OUT BY THE INSPECTOR BELOW:

As per the 2012 agreement, the requirement is to a) determine the mechanisms that could cause contamination to leave the site footprint, b) assess whether or not contamination is present or occurring [outside the containment areas], and c) determine mitigation measures to prevent further contamination. The study must include assessments of the facilities containing hazardous materials or waste, including (but not limited to) the TCA, the hazardous waste storage area, the fuel farms, and the historic landfill. With regards specifically to the TCA, the following is to be achieved:

- a) characterize the tailings contained within the TCA;
- b) characterize the esker material (from the source) that was used as cover; and,
- c) determine whether tailings or contaminants from the tailings are leaving the TCA.

This is to address the TCA **as a whole**, and not only at Dam 6 where the most obvious deposition has taken place. Mechanisms other than wind are to be also considered (eg: seepage).

A SAMPLING PLAN THAT SATISFIES THE ABOVE REQUIREMENTS IS TO BE PROVIDED TO THE INSPECTOR FOR APPROVAL BY MAY 31, 2015. UPON APPROVAL OF THE PLAN BY THE INSPECTOR, THE WORK SHALL BE CARRIED OUT BEFORE AUGUST 31, 2015. CONFIRMATION IS TO BE PROVIDED TO THE INSPECTOR ON OR BEFORE AUGUST 31, 2015 THAT THE WORK HAS BEEN COMPLETED. A PRELIMINARY REPORT IS TO BE PROVIDED TO THE INSPECTOR BY OCTOBER 31, 2015 AND A FINAL REPORT BY DECEMBER 31, 2015.

Failure to undertake the work as required by the Inspector will result in escalation of the issue to enforcement action. This may include the issuance of a direction or may be subject to prosecution under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*. Should you have any questions regarding the contents of this letter, please do not hesitate to contact me.

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Attachments: 2AM-LUP0914 2014 Plan for Compliance – Inspector’s Response (*spreadsheet*)

CC: Phyllis Beaulieu, Manager of Licensing, NWB
 Erik Allain, Manager of Field Operations, AANDC