



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

| | | | |
|---|---|--|--|
| Licensee | | Licensee Representative | |
| LMI / Elgin Mining | | George Friesen | |
| Licence No. / Expiry | | Representative's Title | |
| 2AM-LUP0914 – Expired | | | |
| Land / Other Authorizations | | Land / Other Authorizations | |
| 8WLC-LUP1415 | | 76E/14-1, -2, -10 and 76E/11-3 | |
| Date of Inspection | | Inspector | |
| 15/07/2014 | | Eva Paul | |
| Activities Inspected | | | |
| <input checked="" type="checkbox"/> Camp | <input type="checkbox"/> Drilling | <input checked="" type="checkbox"/> Mining | <input type="checkbox"/> Construction |
| <input checked="" type="checkbox"/> Roads/Hauling | <input checked="" type="checkbox"/> Other: Tailings | | <input checked="" type="checkbox"/> Reclamation |
| | | <input type="checkbox"/> Other: | <input checked="" type="checkbox"/> Fuel Storage |

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|---|----|----------------|-------------|------------------------------|---------------------|--------------------|---------|--------------------|----|-----------|---------|
| Conditions: | | A - Acceptable | C - Concern | U - Unacceptable | NA – Not Applicable | NI – Not Inspected | | | | | |
| Water Use | | Condition | Comment | Site Conditions | | Condition | Comment | Haz/Mat Management | | Condition | Comment |
| Intake/Screen | NA | | | Water Management Structures | U | 3 | | Storage | C | 3 | |
| Flow Measure. Device | NA | | | Culverts / Bridges | A | | | Spills | U | 6 | |
| Source: | NA | | | Drainage | A | | | Spill Plan | U | 6 | |
| Water Use: | NA | | | Erosion / Sediment | C | 4 | | | | | |
| Recirculation (y /n) | NA | | | Mitigation Measures | U | 5 | | Administrative | | | |
| | | | | Reclamation Activities | U | 5 | | Records | NI | | |
| | | | | Materials Storage | A | | | Reports | U | 7 | |
| Waste Disposal | | | | Signage | NI | | | Plans | U | 7 | |
| Waste Water | C | 1 | | | | | | Notifications | A | | |
| Solid Waste | A | | | Monitoring | | Other | | | | | |
| Hazardous Waste | C | 2 | | Sample Collection / Analysis | A | | | | | | |
| | | | | | | | | | | | |
| <i>*The number in the comments field will correspond with specific comments provided below.</i> | | | | | | | | | | | |
| Samples taken by Inspector: | | | | Location(s): | | | | | | | |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | | | | | | | | |

| | | | |
|--|--|--|---|
| SECTION 1 | <input checked="" type="checkbox"/> Comments (s.1) | <input checked="" type="checkbox"/> Non-Compliance with Act or Licence (s.2) | <input checked="" type="checkbox"/> Action Required (s.3) |
| <p>Lupin Mine is currently inactive and the site empty. No water use or deposit of waste is currently permitted under the Type A water licence, which is expired and pending renewal. An Approval without a Licence ('Approval') has been issued in the meanwhile, to permit LMI to undertake work necessary to maintain the site. Mr. Friesen met me on site for the inspection, with Mr. Shawn Carter who will be conducting work at site this summer in partnership with Delta Engineering.</p> <p>1. There was approximately one meter freeboard in the lower sewage lagoon. Mr. Friesen indicated that the level was lower than it was during his June visit, however, this level will have to be monitored. Mr. Friesen indicated that sample results from the June visit were compliant for discharge; however LMI is not currently authorized to discharge under the Approval.</p> <p>2. There is no great reduction in hazardous waste on-site compared to the 2012 inspection. It does not appear from the 2013 monthly reports that any hazardous waste was backhauled in 2013. Hazardous waste should be a priority for backhaul.</p> <p>3. Barrels of fuel marked 'WSC' were noted at the main water intake. These barrels were within 5 m of the water and not in containment. Tailings Containment Area (TCA) did not show any obvious faults aside from erosion. Tears are visible in the liner of the main tank farm. The satellite tank farm (STF) berm appears to be leaking; heavy staining is showing around the base (outside the berm) but the upper part of the banks are clean, indicating that it has not overflowed as was thought in 2012. This leads me to believe that the contamination is seeping from the bottom outward. Numerous barrels were noted at the shacks down the road from the quarry. There is a steady flow from Upper Sewage Lagoon to the Lower Sewage Lagoon (LSL) through a collapsed and rusted culvert. The creek downstream from the LSL discharge is exhibiting signs of impact from the discharge. It appears that an ice lens has formed under the active layer, and the active layer is being washed out. This may be due to ponding, or another effect of the discharge. In addition, there is a long crack in the dam that contains the lower sewage lagoon.</p> <p>4. TCA road at Dam 6 is washed out. Mr. Friesen reported that this is a recurring problem.</p> <p>5. The uncovered tailings remain an outstanding issue. No work has been conducted to cover the tailings despite repeated instruction to do so. No mitigation measures have been implemented to prevent windblown tailings/cover from impacting the tundra. Historic experiments to grow vegetation on the tailings cover near Dam 6 appear to have been successful; this could be implemented on other areas of covered tailings to aid in the encapsulation.</p> <p>6. Spill reported in 2012 from the STF was not cleaned up; in fact it appears to have worsened. As such, the spill plan is not being implemented. Currently, nothing is being done to ensure that the uncovered tailings do not become windblown from the TCA, nor has the material that has already been blown from the TCA (documented in 2012) been returned to the TCA. Elevated levels of arsenic where noted in the samples taken outside the TCA and reported to LMI in a follow-up report in 2012.</p> <p>7. Compliance Plan submitted in 2012 was not approved by the Inspector. This was discussed with Mr. Vokey of LMI in November 2012; however the changes that were discussed were never incorporated into the plan nor was the plan updated with the NWB. There are a number of items that were not reflected accurately in the plan. Commitments that were made in the plan have not</p> | | | |



or in response to the 2012 inspection report have not been completed. Inspector’s instruction to cover the exposed tailings has been repeatedly postponed. Annual reports do not adequately address Inspector’s concerns from the 2012 Inspection Report.

SECTION 2

☐ Comments

☒ Non-Compliance with Act or Licence

☐ Action Required

Part E Item 6(e): Failure to contain mill tailings permanently within the TCA.
Part E Item 14: Failure to remove hazardous wastes from site.
Part H Item 4: Failure to provide adequate secondary containment.
Part H Item 8(a): Failure to implement the Spill Contingency Plan with respect to spill from the STF and the TCA.
Part I Item 9: Failure to conduct progressive reclamation, including cover of tailings and revegetation.

SECTION 3

☐ Comments

☐ Non-Compliance with Act or Licence

☒ Action Required

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.

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| Licensee or Representative | Inspector’s Name |
| - | Eva Paul |
| Signature | Signature |
| - | Sent electronically |
| Date | Date |
| - | August 5, 2014 |

Office Use Only:

Follow-up report to be issued by Inspector

☐ Yes ☐ No

Attached:

Appendix 1 - Photos of Inspection

CC:

Phyllis Beaulieu, Manager of Licensing, NWB

Erik Allain, Manager of Field Operations, AANDC

Baba Pedersen, Resource Management Officer – Kitikmeot Region, AANDC