

# **Lupin Mines Incorporated**

A wholly owned indirect subsidiary of Elgin Mining Inc.

## **Lupin Mine Site**

Nunavut, Canada

## **Annual Report, 2012**

(Care and Maintenance)

March 2013

Lupin Mines Incorporated  
Elgin Mining Inc.  
#201 - 750 West Pender Street  
Vancouver, BC, V6C 2T7

## **Executive Summary**

This report is submitted in fulfillment of Part B Item 2 of Water Licence 2AM-LUP0914 which requires the Licensee to file an Annual Report with the Nunavut Water Board. Activities at the Lupin site in 2012 include work associated with care and maintenance of the facility as well as an exploration program, under Water Licence 2BE-LEP1217.

Key care and maintenance activities completed in 2012 included:

- Discharge of effluent from the Tailings Containment Area (TCA), the Sewage Lakes Disposal Facility and the Bulk Fuel Storage Facilities;
- Geotechnical monitoring;
- Water quality monitoring;
- Site maintenance, including repairs on the TCA and the Sewage Lake Disposal Facility; and
- Maintenance and upgrades on the Bulk Fuel Storage Facilities.



## **Ataniuyunut Nainaqhimayut**

Una tuhagakhaliq tuniyauyuq iniqtigahuaqhugit tapkuat Ilanga B Titigaq 2 tapkunani Imaqmut Laisa 2BE-LEP1217 tapkuat piyaqaqtitai tapkuat Laisataqhimayut tunihinik Ukiumut Tuhagakhaliq tapkununga Nunavut Imaligiyyit Katimayit. Huliniit talvani Lupin havakvia 2012-mi ilautitlugit havat piqatai tapkuat munagini ihuaqhihimanitlu tapkuat havagutauyut tapkuatluttauq havikhaqhiuqniqmut havagutit, atuqhugu Imaqmut Laisa 2BE-LEP1217.

Atuqniqhat munagininut ihuaqhihimanilu huliniit iniqtauyut 2012-mi ilalgit:

- Kuvigaqnit halumaittut imait talvanga Uyagaktaqnikut Hiamaktailiviat (TCA-nga), tapkuat Anaqnut Tahiq Kuvigaqvik tamnalu Angiyuq Uqhuqyuanut Tutqumavik Havagutit;
- Nunaliqutinut piluaqnaqtuliquitit munaginit;
- Immap qanugitni munaginit;
- Havakvik ihuahihimani, ilautitlugit hanayaunit tapkuat Uyagaktaqnikut Hiamaktailivia tamnalu Anaqnut Tahiq Kuvigaqvik Havagutit; tamnalu
- Ihuaqhihimani nutanguqtigaunilu tapkuat Angiyuq Uqhuqyuanut Tutqumavik Havagutit.

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## **1 Introduction**

Lupin Mines Incorporated (LMI), a wholly owned indirect subsidiary of Elgin Mining Inc. (Elgin), has prepared this Annual Report (the Report) with respect to the requirements within Water Licence number 2AM-LUP0914 (Water Licence), Part B, Item 2.

The current Type A Water Licence 2AM-LUP0914 (Water Licence) for the Lupin Gold Mine (Lupin or the Lupin Mine) is valid until March 31, 2014 and has been kept in good standing.

### **1.1 Project and Company Information**

Elgin is a Canadian based company focused on the production at the Björkdal Gold Mine located in Sweden, and the exploration and development of the Lupin Gold Mine and Ulu Gold Project, both located in Nunavut, Canada.

Elgin purchased LMI, which owns the Lupin Mine, from MMG Resources Ltd. in July 2011. The Lupin site was an operational underground gold mine from 1982 to 2005 with temporary suspensions of activities between Jan 1998 and April 2000, and again between Aug 2003 and March 2004. The mine resumed production in March 2004 until 2005. Since 2005, the site has remained in care and maintenance.

An exploration program was conducted until late October 2012 at the Lupin site under Water Licence 2BE-LEP1217 (and its two Amendments issued in 2012). All camp infrastructure required for the exploration program currently exists at the Lupin Mine site, which has previously been screened by the Nunavut Impact Review Board under file 99WR053 and approved by the Nunavut Water Board under Water Licence 2AM-LUP0914.

Company:	LMI
Project:	Lupin Mine, Nunavut
Company Address:	201 – 750 W Pender St, Vancouver, BC, V6C 2T7
Telephone:	604-682-3366
Email:	<a href="mailto:wosborne@elginmining.com">wosborne@elginmining.com</a>
Attention:	Wayne Osborne, Project Manager

Effective date: 30 March 2013

#### **Distribution List:**

Patrick Downey	Chief Executive Officer
Jim Currie	Chief Operating Officer
Wayne Osborne	Project Manager
Peter Tam	Chief Financial Officer
Michele Jones	Manager, Corporate Affairs
David Vokey	Sr. Environmental Coordinator
Karyn Lewis	General Administration

## **1.2 Site Location**

The Lupin Mine is located in Kitikmeot Region, Nunavut, 400 km north of Yellowknife, Northwest Territories and 285 km southeast of Kugluktuk. The airport serving this site is at 65° 46'00" N; 111° 14'41" W. The site is on the western shore of Contwoyto Lake, approximately 60 km south of the Arctic Circle (Figure 1).

## **1.3 Environmental and Sustainable Development Policy**

Elgin Mining Inc. and its subsidiaries (collectively, "Elgin Mining") are committed to maintaining a safe, clean, compliant and respectful work environment. Elgin Mining looks to our employees, contractors and managers to adopt and grow a culture of social responsibility and environmental excellence. Together we achieve this by:

- Promoting environmental stewardship in all tasks. Nothing is too important that it cannot be done in a clean and responsible manner. We strive towards maintaining a zero-incident work place.
- Recognizing that we have a shared responsibility as stewards of the environment in which we operate. We will not walk away from a non-compliant act.
- Identifying, managing and mitigating environmental, business and social risks in an open, honest and transparent manner.
- Planning our work so it is done in the cleanest possible manner and executing work according to plan.
- Continually improving environmental and operational performance by setting and reviewing achievable targets.
- Providing appropriate and necessary resources in the form of training, personnel and capital, including that required for closure planning and reclamation.
- Managing our materials and waste streams, maintaining a high degree of emergency response preparedness and minimizing our operational footprint to maintain environmental protection at all stages of project development.
- Procuring goods and services locally, where available, and favouring suppliers with environmentally and socially responsible business practices.
- Seeking to understand, learn from and mitigate the root causes of environmental incidents and near misses when they do occur.
- Employing systems and technology to achieve compliance, increase efficiency and promote industry best practices in development, operations and environmental stewardship.
- Working with stakeholders to identify and pursue opportunities for sustainable social and economic development and capacity building.



- Conducting early and ongoing stakeholder engagement relevant to the stage of project and mine development and operation.
- Recognizing diversity in the workplace and building meaningful relationships with all stakeholders in a timely, collaborative and transparent manner.

Through implementation of this policy, Elgin Mining seeks to earn the public's trust and be recognized as a respectful and conscientious employer, neighbor and environmental steward.

*Approved by the Board of Directors on August 10th, 2012*

#### **1.4 LMI Purpose and Scope**

The purpose of this report is to fulfill annual reporting requirements under Part B Item 2 of Licence 2AM-LUP0914 for 2012. The Report is structured as per Schedule B1 of the Water Licence.

#### **1.5 Overview of Care and Maintenance Activities**

Activities at the Lupin site in 2012 include work associated with the care and maintenance of the site as well as an exploration program, under Water Licence 2BE-LEP1217. The activities included:

- Water was withdrawal from Contwoyto Lake and there was sewage disposal throughout 2012.
- There was an unauthorized discharge from the Sewage Lakes Disposal Facility in June due to an overflow during the spring freshet. It was estimated that a total of 1,296 m<sup>3</sup> of water was released downstream. The water sample taken on 02June determined that the release met the effluent quality limits of the Water Licence.
- There were discharges from the Tailings Containment Area (TCA), and the Sewage Lake Disposal Facility and the Bulk Fuel Storage Facilities during 2012. All effluent was tested to determine that it met the discharge limits prior to and during discharge. The TCA discharge was reported to Environment Canada as well.
- Maintenance earth works were conducted on the internal dam separating the Upper Sewage Lake from the Lower Sewage Lake.
- Maintenance earth works were conducted on the Dam 3 of the TCA.
- The TCA was inspected by a Geotechnical Engineer.
- The fuel storage and delivery systems underwent considerable improvements in 2012. A fuel containment report was prepared following a site inspection by a qualified engineer. LMI has committed to addressing the elements in this report from 2013 to 2015.

## **2 Monthly and Annual Quantities and Sampling Schedule B1 (a-e)**

Water withdrawal from Contwoyto Lake and sewage disposal in 2012 was continuous for the entire year. Water was withdrawn from LUP-01. Sewage and grey water were collected in a sewage tank at the 1300 and 800 wing of the accommodation buildings. The tank was then hauled to the Upper Sewage

Lake wherein waste was deposited. Grey water originating from office cabin use was deposited in a leaching pit adjacent to the guesthouse (Figure 4).

Effluent from the sewage lakes system was discharged from LUP-14 in 2012 in June and July.

Tailings Containment Area effluent was discharged from LUP-10 in 2012 in September. (1,066,836 m<sup>3</sup>, Table 1). Pond1 was then drawn down 400,000 m<sup>3</sup> in October.

There was no mine water discharged from LUP-11.

At the request of AANDC a sample was collected below the lube storage area and tested for hydrocarbons.

Reportable quantities of water and waste are presented in Table 1, and station locations are identified in Figure 2. Data collected under Schedule B1 (e) can be found in Appendix 1.



#### Legend



Project Location

Coordinate System: NAD\_1983\_UTM\_Zone\_12N

Map Sources/Notes:  
Various Canadian Government Websites - Feb 2012



1:15,000,000

Approved By: AL  
Project No.: LUP  
File Name: Lup-13-08-01-LocationMap-A.mxd

Prepared By: PW  
Date Revised: 17 Apr 2013

Project:

**Lupin Project**

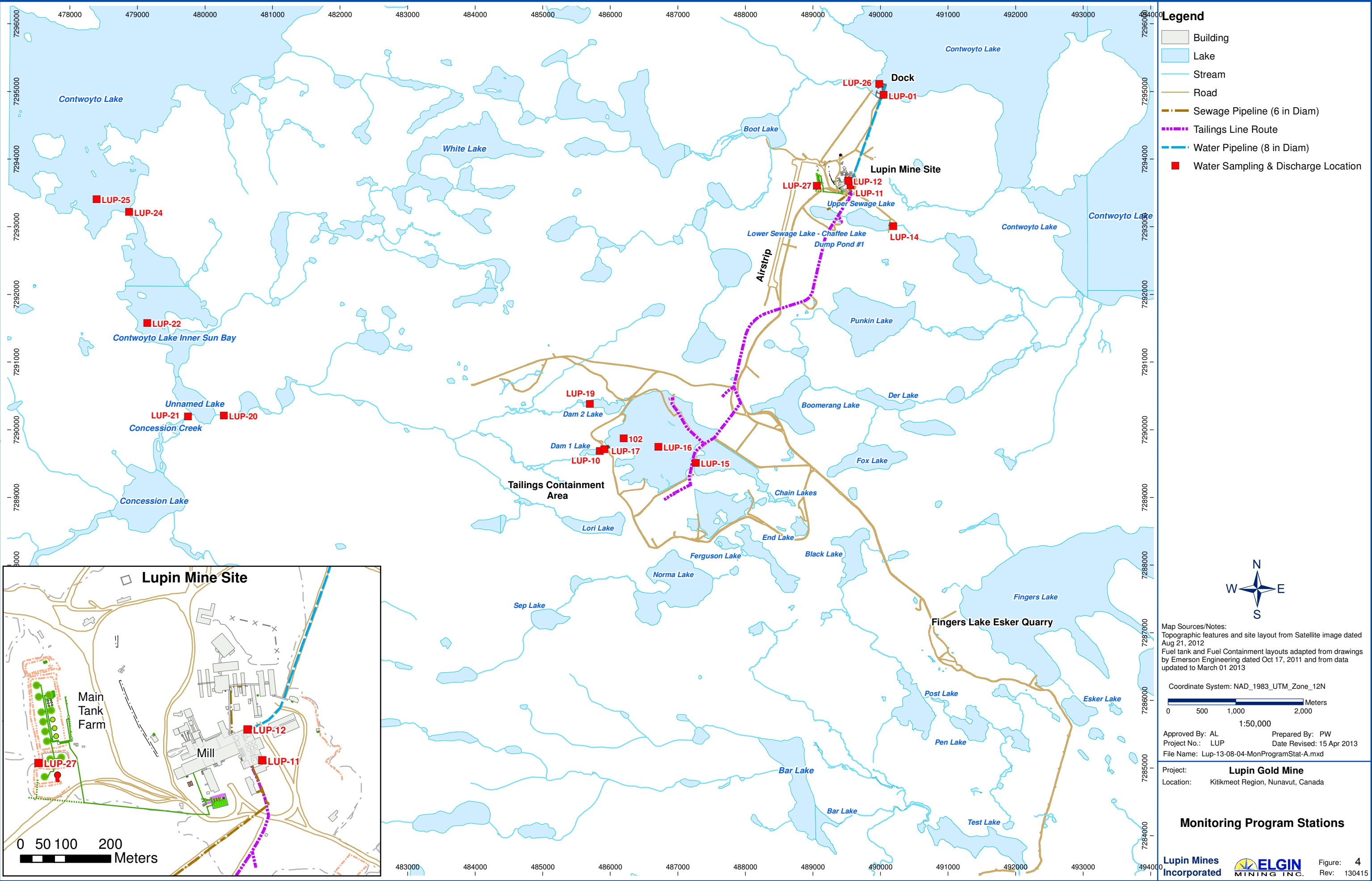
Location: Kitikmeot Region, Nunavut, Canada

#### Location Map

**Lupin Mines  
Incorporated**



Figure:  
Rev: 130417



**Table 1: Reportable Quantities of Water and Waste, Lupin Mine, 2012**

Station	Location	Monthly Quantity (m <sup>3</sup> )												Annual (m <sup>3</sup> )
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
LUP-01	Freshwater Intake	95.7	108.5	163.1	170.2	161.1	230.3	223.4	204.5	193.6	172	130	65.5	<b>1917.9</b>
LUP-10	Pond 2 Discharge at Dam 1 A	1,066,836 in September												<b>1,066,836</b>
LUP-11	Mine water Discharge	Not Active												<b>0</b>
LUP-12	Mill Tailings	Not Active												<b>0</b>
LUP-14	Treated Sewage Effluent Discharge (includes early June over flow 1,296 m <sup>3</sup> )						2,629	216,000						<b>218,629</b>
LUP-15	Discharge from Pond 1 into Pond 2	400,000 in October												<b>400,000</b>
LUP-16	Pond 2 at Centre	Sampled for Pond 2 Discharge period												<b>0</b>
LUP-17	Pond 2 upstream of LUP-10	Sampled for Pond 2 Discharge period												<b>0</b>
LUP-19	East End of Seep Creek in Dam 2 Lake	Not active												<b>0</b>
LUP-20	West End of Seep Creek	Sampled for Pond 2 Discharge period												<b>0</b>
LUP-21	North End of Concession Creek	Sampled for Pond 2 Discharge period												<b>0</b>
LUP-22	Inner Sun Bay Near Centre	Sampled for Pond 2 Discharge period												<b>0</b>
LUP-24	Inner Sun Bay Near Narrows	Sampled for Pond 2 Discharge period												<b>0</b>
LUP-25	Outer Sun Bay	Sampled for Pond 2 Discharge period												<b>0</b>
LUP-26	Contwoyto Lake east of intake	Not Active												<b>0</b>
LUP-27	Bulk Fuel Storage Facility	0	0	0	0	0	804	0	0		0	0	0	<b>804</b>

### 3 Inspections, Schedule B1 (f)

A Water Use Inspection was conducted by Aboriginal Affairs and Northern Development Canada (AANDC) in July 2012. A summary of the inspection and follow up correspondence is presented in Table 2 below. The documents referenced are contained in Appendix 2.

Environment Canada conducted an inspection 25 September. Water samples were taken from the end-of-pipe discharge from the TCA release into the environment. No report has been issued to LMI.

**Table 2: AANDC Inspection July 5 and 6, 2012**

Inspection Item	Action Taken
<p>July 5 and 6 Inspection discussions and Inspection Report (hand-written Licensee copy)</p> <p>Salt spill in burn pit to be cleaned up.</p> <p>Fuel transfer to occur over containment throughout site.</p> <p>Hydrocarbon contamination is a significant issue throughout the site. Heavy contamination is noted in most berms and the satellite tank farm obviously overtopped and released contamination to the outside environment.</p> <p>The hazardous waste storage area has open/exposed barrels and heavy contamination.</p> <p>Sampling in pond beneath this area is required.</p>	<p>Reply to the Inspection Report on July 27 to address immediate concerns of the Inspector.</p> <p>Area of spilt salt was cleaned up July 7.</p> <p>Drip pans have been put in service for all fuel transfers immediately.</p> <p>An assessment of hydrocarbon contamination is to be undertaken in 2013 and a remediation plan developed. A legacy spill report was filed with the NT-NU Spill Line for the satellite tank farm.</p> <p>The barrels sealed and shipped off site for disposal.</p> <p>A soil sample was collected where the ponding water had been observed. The results met residential land use soil quality objectives for hydrocarbon fractions F2 to F4. ALS certificate L1189243 reports the test results and is included in Appendix 1.</p>
<p>By October 31, 2012: A draft compliance plan that outlines every article in the licences in non-compliance and suggests actions and timelines.</p>	<p>A Plan (Oct 31/12) outlining compliance processes LMI was undertaking to address issues identified in the July 5 and 6 Inspection Report, as well as previously received 2011 Inspection Report.</p>
<p>Inspection Report issued November 28, 2012 by AANDC included the following 'Summary of Actions Required':</p> <p>A copy of the 'implementation plan' developed from the geotechnical inspection is to be submitted to the inspector immediately.</p> <p>Submit risk assessment to Inspector.</p>	<p>The general recommendations from the 2012 geotechnical inspection had been incorporated into the compliance plan in October. These were reiterated in the 27 December 2012 response.</p> <p><i>Lupin Mine Site 2012 Geotechnical Inspection Follow-up Risk Assessment and Water Quality Review (April 2013)</i></p>

<p>The 2011 Annual Report is to be amended to reflect 2011 drilling activity and be resubmitted.</p> <p>Update Care and Maintenance Plan, Waste Management Plan and Interim Abandonment Reclamation Plan.</p> <p>Determine why the Board has not approved 2012 plans.</p> <p>Prevent windblown migration of tailings from TCA; conduct progressive reclamation of the TCA.</p> <p>As-built plans and drawings of modifications or construction are to be filed with the Board and copied to the Inspector.</p> <p>Engineer's assessment of secondary containment areas and the submission of a work plan.</p> <p>QA/QC plan submitted to the Board.</p>	<p>is included in Appendix 2.</p> <p>Table 3 below provides the breakdown of water used for camp and drilling purposes in 2011.</p> <p>Updated plans are appended to this Annual Report.</p> <p>LMI has requested an update from the Board on the status of the plan approvals.</p> <p>Mitigation measures for windblown tailings and progressive reclamation of the TCA is described in the <i>Care and Maintenance Plan</i> submitted with this Annual Report.</p> <p>As-built plans and drawings of modifications to existing infrastructure for work planned for in 2013.</p> <p>The updated <i>Fuel Containment Management Strategy</i> submitted with this Annual Report provides details of the assessment and the work plan.</p> <p>The <i>Water Quality Monitoring Plan and Quality Assurance/ Quality Control Plan</i> is included as an Appendix to the <i>Liquid Waste Management Plan</i> as part of the <i>Care and Maintenance Plan</i> submitted with this Annual Report.</p>
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**Table 3: Quantities of Freshwater use for camp and drilling purposes in 2011**

Location	Monthly Quantity (m <sup>3</sup> )												Annual (m <sup>3</sup> )
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
Total Freshwater Intake	0	0	0	0	0	0	0	0	6.8	9.5	146	277.2	<b>439.5</b>
Amount used for camp use	0	0	0	0	0	0	0	0	6.8	9.5	40	40	<b>96.3</b>
Amount used for drilling purposes	0	0	0	0	0	0	0	0	0	0	106	237.2	<b>343.2</b>

#### **4 Modifications and Maintenance: Water Supply and Waste, Schedule B1 (g)**

No physical work was carried out on the water supply facility in 2012.

A limited geotechnical inspection of the Sewage Lakes Disposal Facility dikes on September 22, 2011 noted signs of stress and slope instability of interior dikes and pond levels which may be higher than design and/or operational limits. Stabilization measures were conducted in 2012 on the internal dam separating the Upper Sewage Lake from the Lower Sewage Lake.

## **5 Unauthorized Discharges, Schedule B1 (h)**

There was an unauthorized discharge of effluent from LUP-14 (Sewage Lakes Disposal Facility) in early June, 2012 due to an overflow during the spring freshet. Verbal notification was provided to AANDC immediately. This was also reported in the June monthly report to the Nunavut Water Board and in the 15 June notice to commence discharge from the facility issued to AANDC. It was estimated that a total of 1,296 m<sup>3</sup> of water was released downstream. Water quality samples collected in October and November 2011 at the intake to the discharge siphon met the effluent quality limits as reported in the November 2011 monthly report and 2011 Annual Report. The Lower Sewage Lake was tested when the overflow was discovered on 02 June and the release met the effluent quality limits of the Water Licence.

## **6 Plans, Reports and Manuals, Schedule B1 (i)**

Overall, report revisions have focused on the change in ownership and modifications required to reflect current site conditions. The 2012 *Liquid Waste and Stormwater Management Plan* and the *Discharge Procedure: Tailing Containment Area and Sewage Lakes Disposal Facility* have been combined into a single *Liquid Waste Management Plan*. The 2012 *Sampling Procedure: Tailings Containment Area and Sewage Lakes Disposal Facility* has been replaced by the *Water Quality Monitoring Plan and Quality Assurance Quality/ Control Plan*. Specific content changes are summarized in the document control table of each plan. The revised plans can be found in the appendices.

## **7 Reclamation to Tailings Cover, Schedule B1 (j)**

No reclamation activities as it relates to the tailings cover occurred in 2012. LMI is currently investigating options to restart mine operations. Until such time as this work is advanced, the property will remain under Care and Maintenance; final reclamation works will not be initiated.

## **8 Public Consultation, Schedule B1 (k)**

The following stakeholder engagement activities conducted by LMI in 2012:

- On January 16, 2012 LMI made a presentation to the Kitikmeot Inuit Association (KIA) Board as to the status of Lupin and Ulu mines.
- On January 23, 2012 LMI met with the KIA at the Mineral Exploration Roundup in Vancouver, BC and provided an update.
- On March 06, 2012 LMI met with the KIA at Prospectors and Developers Association of Canada convention in Toronto, ON and provided an update on Lupin and Ulu.
- May 29 – 31, 2012 LMI met with the KIA as well as various elders and community members in Kugluktuk and updated them on activities planned for each site.
- On April 15 – 20, 2012 LMI made a presentation at the Nunavut Mining Symposium in Iqaluit.
- LMI provided sponsorship to communities at the Kitikmeot Trade Show; Kugluktuk Recreation Frolics; Kugluktuk Summer Games; Kugluktuk Christmas Events; and to the Kugluktuk Hockey Team. The total value of the sponsorship was approximately \$10,000.00.



## **9 Abandonment and Reclamation, Schedule B1 (l)**

No progressive abandonment and reclamation works occurred in 2012. Works planned for 2013 include:

- Addressing uncovered tailings in TCA;
- Conducting an assessment of the current status of tailings cover in the TCA;
- Developing remedial plans and updating the *Interim Abandonment and Restoration Plan* based on the results of the tailings cover assessment;
- Managing water internally within the TCA and repairing dams as recommended by the geotechnical engineer; and
- Upgrading the fuel containment systems and decommissioning of outdated infrastructure over the next three years. Work in the main tank farm to inspect and re-certify the tanks and associated system is planned, as well as the installation of a new fuel dispensing module, and eventually decommission the satellite tank farm when the new fuel module is commissioned.

## **10 Mine Reclamation Liability, Schedule B1 (m)**

LMI has updated the assessment of current mine reclamation liability. Current reclamation liabilities are estimated at \$21.2 million. The estimate prepared by the previous owner MMG in 2010 was \$17.9 million. LMI has adjusted MMG's estimate to reflect inflation and the volume of hydrocarbon contaminated soil has been increase from 7,500 m<sup>3</sup> to 40,000 m<sup>3</sup>. The revised RECLAIM assessment is provided in Appendix 7.

## **11 Other, Schedule B1 (n)**

No additional details on water use or waste disposal were requested by the Board by November 1, 2012.

## Appendices

## **Appendix 1: Data Generated Under the Monitoring Plan**

## **Appendix 2: 2012 Inspection Report and Follow Up**

### **Appendix 3: Spill Contingency Plan**

## **Appendix 4: Interim Abandonment and Reclamation Plan**

## **Appendix 5: Care and Maintenance Plan**

## **Appendix 6: Reclamation Liability Estimate**