

# lundin mining

**Annual Information Form  
For the Year Ended December 31, 2011**

**March 28, 2012**

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## DEFINITIONS

In this Annual Information Form all units are SI metric unless otherwise noted. Abbreviations are as defined below unless the context otherwise indicates:

**Ag** means silver.

**AIF** means this Annual Information Form.

**ARMC** means Amended and Restated Mining Convention.

**C\$** means Canadian dollars.

**CIM** means the Canadian Institute of Mining, Metallurgy and Petroleum.

**CIM Standards** means the definitions adopted by CIM Council on November 27, 2010, which were adopted by the Canadian Securities Administrators' in National Instrument 43-101.

**Co** means cobalt.

**Cu** means copper.

**DRC** means Democratic Republic of the Congo.

**dollars** or **\$** means United States dollars.

**€** means the Euro.

**Equinox** means Equinox Minerals Limited.

**EuroZinc** means EuroZinc Mining Corporation, which was acquired by the Company on October 31, 2006 and subsequently amalgamated with the Company effective November 30, 2006.

**FCX or Freeport** means Freeport-McMoRan Copper & Gold Inc., a senior copper mining company with headquarters in Phoenix, Arizona, that owns the majority of TF Holdings and is indirectly majority owner and Operator of TFM.

**Galmoy** means Galmoy Mines Ltd. (Ireland), a wholly-owned indirect subsidiary of the Company that owns the Galmoy mine located in Ireland.

**Gécamines** means La Générale des Carrières et des Mines, the GDRC state-owned mining company.

**GDRC** means the Government of the DRC.

**ha** means hectare.

**HSEC** means Health, Safety, Environment and Community.

**IFC** means the International Finance Corporation.

**Inmet** means Inmet Mining Corporation.

**Km** means kilometer.

**LOM** means Life of Mine.

**Lundin Mining** or the **Company** means Lundin Mining Corporation, including Lundin Mining Corporation and its subsidiaries.

**m** means metre.

**mm** means millimeter.

**MD&A** means Management's Discussion and Analysis of results of operations and financial condition of the Company for the fiscal year ended December 31, 2011, dated February 22, 2012.

**mtpa** means million tonnes per annum.

**National Instrument 43-101** means National Instrument 43-101 “Standards for Disclosure For Mineral Projects” adopted by the Canadian Securities Administrators.

**National Instrument 52-110** means National Instrument 52-110 “Audit Committees” adopted by the Canadian Securities Administrators.

**Ni** means nickel.

**NSR** means Net Smelter Return.

**OMX** means the NASDAQ OMX Nordic Exchange, Stockholm.

**Oz** means ounces.

**Pb** means lead.

**PD / Phelps Dodge** means Phelps Dodge Corporation.

**Qualified Person** means a qualified person within the meaning of National Instrument 43-101.

**Rights Plan** means Shareholder Rights Plan.

**Rio Narcea** means Rio Narcea Gold Mines, Ltd. (Canada), a wholly-owned indirect subsidiary of the Company that indirectly owns the Aguablanca mine located in Spain.

**Rio Tinto** means the Rio Tinto Group.

**SEDAR** means the System for Electronic Document Analysis and Retrieval.

**SEK** means Swedish kronor.

**SI** means International System of Units

**Silverstone** means Silverstone Resources Corp.

**Silver Wheaton** means Silver Wheaton Corp., which acquired Silverstone in May 2009.

**Somincor** means Sociedade Mineira de Neves-Corvo, S.A. (Portugal), a wholly-owned indirect subsidiary of the Company that owns the Neves-Corvo mine located in Portugal.

**Tenke Holdings** means Tenke Holdings Ltd. (Bermuda), a wholly-owned subsidiary of the Company that owns a minority interest in TF Holdings and a minority indirect interest in TFM.

**Tenke Mining** means Tenke Mining Corp. which was acquired by the Company on July 3, 2007 and subsequently amalgamated with the Company effective July 31, 2007.

**TF Holdings** means TF Holdings Limited (formerly, Lundin Holdings Ltd.), a Bermuda company owned 30% by Tenke Holdings and 70% by FCX that owns a controlling position of TFM.

**TFM** means Tenke Fungurume Mining Corp. SARL, a Congolese company that owns the Tenke Fungurume mine.

**Tenke Fungurume mine** means the deposits of copper, cobalt and associated minerals under mining concessions granted to TFM in 1996 at Tenke and Fungurume, Katanga Province, DRC.

**tpa/d** means tonnes per annum/day.

**TSX** means the Toronto Stock Exchange.

**Zinkgruvan** means Zinkgruvan Mining AB (Sweden), a wholly-owned indirect subsidiary of the Company that owns the Zinkgruvan mine located in Sweden.

**Zn** means zinc.

## CAUTIONARY NOTICE REGARDING FORWARD-LOOKING INFORMATION AND STATEMENTS

Certain of the statements made and information contained herein are "forward-looking information" and "forward-looking statements" within the meaning of applicable securities laws. The use of any of the words "expect", "anticipate", "continue", "estimate", "objective", "ongoing", "may", "will", "project", "should", "believe", "plans", "intends", "potential", "pro forma" and similar expressions are intended to identify forward-looking information or statements. Forward-looking information and statements are subject to a variety of risks and uncertainties which could cause actual events or results to differ from those reflected in the forward-looking information and statements, including, without limitation, risks and uncertainties relating to foreign currency fluctuations; risks inherent in mining including environmental hazards, industrial accidents, unusual or unexpected geological formations, ground control problems and flooding; risks associated with the estimation of mineral resources and reserves and the geology, grade and continuity of mineral deposits; the possibility that future exploration, development or mining results will not be consistent with the Company's expectations; the potential for and effects of labour disputes or other unanticipated difficulties with or shortages of labor or interruptions in production; actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; the inherent uncertainty of production and cost estimates and the potential for unexpected costs and expenses, commodity price fluctuations; uncertain political and economic environments; changes in laws or policies, foreign taxation, delays or the inability to obtain necessary governmental permits; the outcome of contract review processes and resolution of administrative disputes with government authorities; and other risks and uncertainties, including those described under *Risk Factors Relating to the Company's business in the Company's Annual Information Form* and in each management's discussion and analysis.

Forward-looking information and statements are, in addition, based on various assumptions including, without limitation, the expectations and beliefs of management, the assumed long term price of copper, lead, nickel and zinc; that the Company can access financing, appropriate equipment and sufficient labour and that the political environment where the Company operates will continue to support the development and operation of mining projects. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in the forward-looking information and statements. Accordingly, readers are advised not to place undue reliance on forward-looking information and statements.

The forward-looking information and statements contained in this Annual Information Form are made as of the date hereof and Lundin Mining undertakes no obligation to update publicly or revise any forward-looking information or statements, whether as a result of new information, future events or otherwise, except as required by applicable securities laws. The forward-looking information and statements contained herein are expressly qualified in their entirety by this cautionary statement.

## ITEM 1 INTRODUCTION

### 1.1. Date of Information

All information in this AIF is as of December 31, 2011 unless otherwise indicated.

### 1.2. Currency

The Company reports its financial results and prepares its financial statements in United States dollars. All currency amounts in this AIF are expressed in United States dollars, unless otherwise indicated. The United States dollar exchange rates for the Company's principal operating currencies and for the Canadian dollar are as follows:

As at December 31	2011	2010	2009
Canadian dollar (C\$)	1.0170	0.9946	1.0525
Euro (€)	0.7729	0.7484	0.6974
Swedish krona (SEK)	6.9234	6.7910	7.2125

### 1.3. Accounting Policies and Financial Information

Financial information is presented in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. Unless otherwise indicated, financial information contained in this AIF is presented in accordance with IFRS.

This AIF refers to various non-IFRS measures, such as "operating earnings" and "cash cost per pound", which are used by the Company to manage and evaluate operating performance at each of Lundin Mining's mines and are widely reported in the mining industry as benchmarks for performance, but do not have standardized meaning. To facilitate a better understanding of these measures as calculated by the Company, please refer to the MD&A where detailed descriptions and reconciliations, where applicable, have been provided.

### 1.4. Conversion Table

In this AIF, metric units may be used with respect to Lundin Mining's various mineral properties and operations. Conversion rates from imperial measures to metric units and from metric units to imperial measures are provided in the table set out below.

<u>Imperial Measure</u>	=	<u>Metric Unit</u>	=	<u>Imperial Measure</u>
2.47 acres		1 hectare	0.4047 hectares	1 acre
3.28 feet		1 metre	0.3048 metres	1 foot
0.62 miles		1 kilometre	1.609 kilometres	1 mile
2.2 pounds		1 kilogram	0.454 kilograms	1 pound
0.032 ounces (troy)		1 gram	31.1 grams	1 ounce (troy)
2,204.62 pounds		1 tonne	0.000454 tonnes	1 pound

### 1.5. Classification of Mineral Reserves and Resources

In this AIF, the definitions of proven and probable Mineral Reserves and measured, indicated and inferred Mineral Resources are those used by Canadian Securities Administrators and conform to the definitions utilized by the CIM in the CIM Guidelines. Where Mineral Resources are stated alongside Mineral Reserves, those Mineral Resources are inclusive of, not in addition to, the stated Mineral Reserves.

## ITEM 2            CORPORATE STRUCTURE

### 2.1.    Incorporation and Registered Office

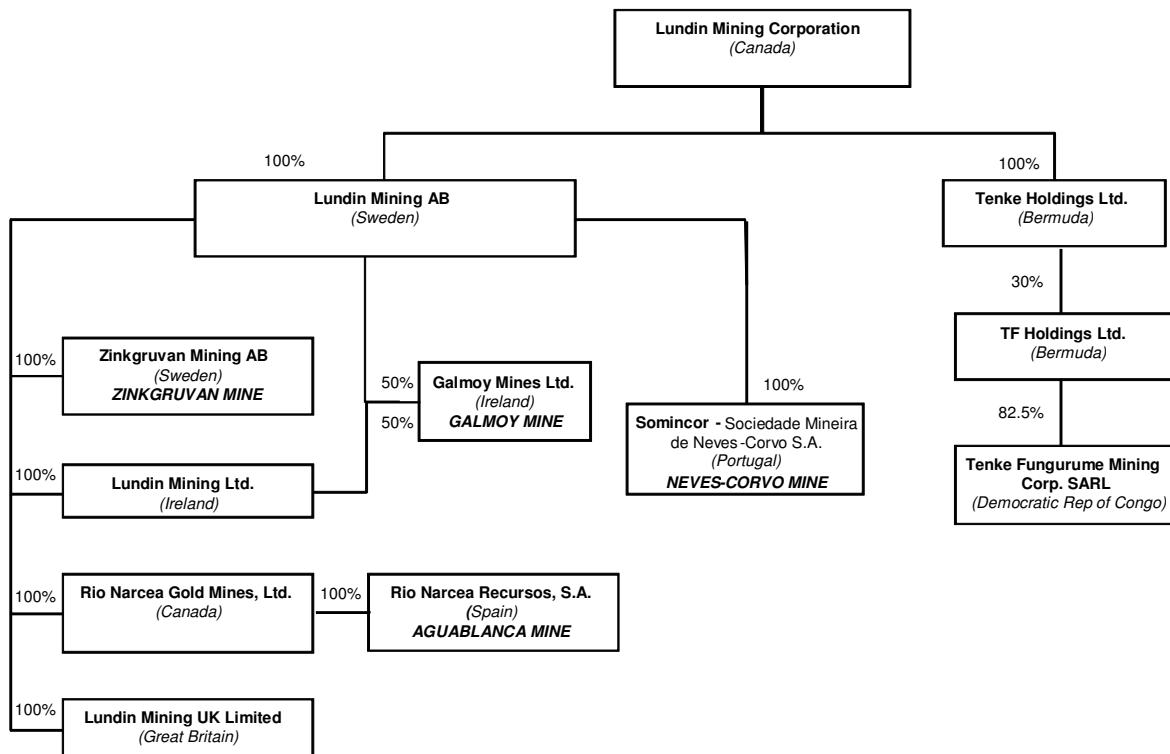
Lundin Mining was incorporated by Articles of Incorporation on September 9, 1994, under the Canada Business Corporations Act as South Atlantic Diamonds Corp. and subsequently changed its name to South Atlantic Resources Ltd. on July 30, 1996, and to South Atlantic Ventures Ltd. on March 25, 2002. The Company changed its name to Lundin Mining Corporation on August 12, 2004.

The Company amalgamated with EuroZinc effective November 30, 2006 and with Tenke Mining effective July 31, 2007.

As at December 31, 2011, the Company's registered and records office and corporate head office was located at 150 King Street West, Suite 1500, Toronto, Ontario, Canada M5H 1J9; telephone: +1 416 342 5560.

### 2.2.    Inter-Corporate Relationships

A significant portion of the Company's business is carried on through its various subsidiaries. The following chart illustrates, as at December 31, 2011, the Company's significant subsidiaries, including their respective jurisdiction of incorporation and the percentage of voting securities in each that are held by the Company either directly or indirectly:



\*On March 26<sup>th</sup>, 2012 the President and Prime Minister of the DRC signed a decree approving the bylaw changes for TFM. Accordingly, TF Holdings interest in TFM was reduced to 80.0% effective March 26<sup>th</sup>, 2012 in accordance to the signed agreements with the DRC government.

## **ITEM 3                   GENERAL DEVELOPMENT OF THE BUSINESS**

Lundin Mining is a diversified Canadian base metals mining company with operations in Portugal, Sweden, Spain and Ireland, producing copper, zinc, lead and nickel. In addition, Lundin Mining holds an equity stake in the Tenke Fungurume copper/cobalt mine in the Democratic Republic of Congo.

### **3.1.   Three Year History**

#### **2009**

- a) On February 23, 2009, the Company entered into an agreement with HudBay to terminate the arrangement agreement dated November 21, 2008 that provided for, among other things, a mutual release in respect of any and all rights in connection with or arising from the arrangement agreement.
- b) In March 2009, the Company announced the intention to voluntarily delist its common shares from the NYSE and at a future date, when permitted under SEC rules, to terminate its registration of its common shares with the Securities and Exchange Commission. The delisting of the Company's common shares from the New York Stock Exchange did not affect the listing of the Company's common shares on the TSX or the Swedish Depository Receipts on the OMX.
- c) In March 2009, the first copper cathode was produced by the Tenke Fungurume mine in the DRC. Initial high-grade oxide ore facilities at the Tenke Fungurume mine have been designed to produce approximately 115,000 metric tonnes of copper cathode and 8,000 tonnes of cobalt per annum.
- d) On April 27, 2009, the Company closed a bought-deal public offering for total gross proceeds of C\$188.6 million (\$155.8 million). The Company issued 92 million common shares of the Company at a price of C\$2.05 per share.
- e) On May 11, 2009, the Company entered into an agreement with HudBay consenting to the sale by HudBay of all of its shares in the Company. Pursuant to the agreement, the Company and HudBay terminated all continuing rights and obligations under the termination agreement dated February 23, 2009 and agreed to a mutual release in respect of any and all claims connected with or arising from the subscription agreement.
- f) On July 6, 2009, the Company completed the restructuring of its credit facility. The revised terms incorporated in the Third Amending Agreement provide for a three-year, fully-revolving credit facility of \$225 million.
- g) On September 18, 2009, the Company completed the sale of its 49% interest in the Ozernoe zinc project in Russia for gross proceeds of \$35 million. Proceeds of \$3.5 million were received upon closing, with the balance of \$31.5 million received over 10 months. This sale terminated all of the Company's rights and obligations related to the project.

#### **2010**

- a) On February 11, 2010, the Company announced an agreement with Astur Gold Corp. (formerly Dagilev Capital Corp.) for the sale of the Salave gold project in northern Spain. The sale was completed in April 2010.
- b) On February 16, 2010, underground mining employees at Neves-Corvo commenced a program of strikes. This action terminated on April 1, 2010 and an agreement was reached on May 14, 2010 to end industrial action at Neves-Corvo based on a new productivity arrangement.

- c) The Zinkgruvan copper plant was commissioned in the third quarter of 2010, and is expected to reach design production of 7,000 tpa of copper in 2013. The capital cost of the copper project was approximately \$40 million.
- d) On September 1, 2010, Lundin Mining's revolving credit facility agreement was amended, increasing the facility to \$300 million from \$225 million, and extending the term to September 2013. The amended facility provided additional flexibility for future growth projects and reduced carrying costs.
- e) In October 2010, the government of the DRC announced the conclusion of the review of TFM's mining contracts. The conclusion of the review process confirmed that TFM's existing mining contracts are in good standing and acknowledged the rights and benefits granted under those contracts. TFM's key fiscal terms, including a 30 percent income tax rate, a 2% mining royalty rate and a 1% export fee, will continue to apply and are consistent with the rates in the DRC's current Mining Code. In connection with the review, TFM made several commitments, which have been reflected in amendments to its mining contracts, including: an increase in the ownership interest of Gécamines, which is wholly owned by the government of the DRC, from 17.5% (non-dilutable) to 20.0% (non-dilutable), resulting in a decrease of Freeport's effective ownership interest from 57.75% to 56% and Lundin Mining's effective ownership interest from 24.75% to 24%; an additional royalty of \$1.2 million for each 100,000 tonnes of proven and probable copper reserves above 2.5 million tonnes at the time new reserves are established by FCX; additional payments totaling \$30 million to be paid in six equal installments of \$5 million upon reaching certain production milestones; conversion of \$50 million in intercompany loans to equity; a payment of approximately \$5 million for surface area fees and ongoing surface area fees of approximately \$0.8 million annually; incorporating clarifying language stating that TFM's rights and obligations are governed by the ARMC; and expanding Gécamines' participation in TFM management.

TFM has also reiterated its commitment to the use of local services and Congolese employment. In connection with the modifications, the annual interest rate on advances from TFM shareholders increases from a rate of LIBOR plus 2% to LIBOR plus 6%. In December 2010, the addenda to TFM's ARMC and Amended and Restated Shareholders' Agreement were signed by all parties and subject to implementation once a ratifying Presidential Decree was obtained. In addition, the change in Lundin Mining's effective ownership interest in TFM and the conversion of intercompany loans to equity will be given effect after obtaining approval of the modifications to TFM's bylaws.

- f) During October 2010, Lundin Mining announced that surface exploration drilling focusing on a prospective area close to the Neves-Corvo mine discovered a new high-grade, copper-rich massive sulphide deposit, Semblana, one kilometre to the northeast of the Zambujal copper-zinc orebody. Exploration drilling outlined an area of at least 600 metres by 250 metres of massive sulphide + stockwork mineralization in 7 drill holes. This new deposit remains open in several directions and appears to be almost flat-lying.
- g) During October 2010, Lundin Mining announced that Mr. Phil Wright, the President and CEO, would retire during the first half of 2011 and the Board of Directors appointed a committee to address the timing and manner of succession to ensure an orderly and effective transition.
- h) Mining operations at Aguablanca were suspended following a major slope failure on the main access ramp caused by heavy rainfall in the second week of December 2010. The mine has approximately five years of reserves remaining and it is expected that production will resume in 2012.

## 2011

- a) On January 12, 2011, Lundin Mining and Inmet announced that they entered into an arrangement agreement to merge and create Symterra Corp., a leading international copper producer. The transaction was valued at approximately C\$9 billion.
- b) On February 27, 2011, Lundin Mining announced that it had been advised by Equinox that Equinox intended to make an unsolicited take-over bid for the shares of Lundin Mining.
- c) On March 29, 2011, Lundin Mining and Inmet jointly announced the termination of the arrangement agreement dated January 12, 2011. Also on that day, Lundin Mining announced that its Board of Directors had adopted a limited duration Rights Plan to enable a full consideration of strategic alternatives.
- d) On April 18, 2011, Lundin Mining announced that the government of the DRC issued a Presidential Decree approving the amendments to the Tenke Fungurume Mining contracts and the decree was published in the DRC Official Gazette.

This decree formalized the conclusion of the review process by the DRC government and confirmed that the Tenke Fungurume contract's were in good standing, and acknowledged the parties' continuing commitment to the rights and benefits granted under the Tenke Fungurume Mining contracts.

- e) On April 25, 2011, Equinox announced the withdrawal of its offer to acquire the common shares of Lundin Mining. Subsequent to the hostile take-over bid for Lundin Mining, Equinox became subject to a take-over bid by Barrick Gold Corporation which was conditional on Equinox abandoning its bid for Lundin Mining.
- f) In late May 2011, Lundin Mining announced the conclusion of its strategic review process.
- g) On May 25, 2011, Lundin Mining announced the expiration of the Rights Plan, which was not renewed.
- h) In September 2011, the Company reported its Mineral Reserve and Resource estimates as at June 30, 2011. The full release can be found on the Company's website at [www.lundinmining.com](http://www.lundinmining.com).

The Company also announced the results of the Feasibility Study for the Lomabдор Phase I project. The Feasibility Study shows that Lombador Phase I can be developed as a profitable and value accretive extension to the Neves-Corvo mine, and would extend the mine life to at least 2026.

- i) On October 31, 2011, the Company announced the formal appointment of Mr. Paul Conibear as President and Chief Executive Officer, after having held the role on an interim basis following the retirement of Mr. Philip Wright on June 30, 2011.
- j) On November 1, 2011, the Company reported that FCX, as operator of the Tenke Fungurume mining operations, approved the undertaking of a second phase of the Tenke Fungurume mine which targets the addition of approximately 68,000 tonnes of copper cathode production annually. The Phase 2 Expansion is expected to increase copper production by 50% to approximately 195,000 tonnes of copper cathode and 15,000 tonnes of cobalt in hydroxide, targeted for completion in 2013. The expansion will cost approximately \$850 million and will include additional mining equipment, mill upgrades, acid plant expansion and a doubling of existing tank house capacity.
- k) In December 2011, the Company released an interim report on exploration activities including an initial Inferred Mineral Resource for the Sembla Copper Deposit located adjacent to its 100% owned Neves-Corvo mine in southern Portugal.

## 2012

- a) On January 23, 2012, Lundin Mining provided a summary of the results of the initial Future Underground Materials Handling Study (the "Study") for its Neves-Corvo mining complex in southern Portugal. This conceptual level study identified and evaluated the underground materials handling and access options necessary to pursue the exploitation of the deeper Lombador copper/zinc resources as well as the Semblana copper deposit which are adjacent to the Company's Neves-Corvo mine. Initial materials handling studies have indicated two preferred options; a conventional shaft system and a tunnel boring machine excavated decline tunnel equipped with conveyors. Trade off studies during 2012 will select a single option for advancement to feasibility study level with completion of this study anticipated by mid-2013
- b) At the end of February 2012, Lundin Mining provided a Reserve and Resource update for TFM.
- c) On March 26<sup>th</sup>, 2012 the President and Prime Minister of the DRC signed a decree approving the bylaw changes for TFM as announced in October 2010 and approved by Presidential Decree in April 2011. Accordingly, as of March 26<sup>th</sup>, 2012, Lundin Mining's effective ownership interest in TFM is reduced from 24.75% to 24% and \$50 million in intercompany loans has been converted to equity.

## ITEM 4 DESCRIPTION OF THE BUSINESS

Lundin Mining is a diversified base metals mining company with operations in Portugal, Sweden, Spain and Ireland, producing copper, zinc, lead and nickel. In addition, Lundin Mining holds a development project pipeline which includes an expansion project at its Neves-Corvo mine along with its equity stake in the world class Tenke Fungurume copper/cobalt mine in the Democratic Republic of Congo.

### 4.1 Principal Products and Operations

Lundin Mining's principal products and sources of sales are copper, zinc, lead and nickel concentrates from Neves-Corvo, Zinkgruvan and Aguablanca. Lundin Mining also holds a minority interest in TFM. Information related to Lundin Mining's segmented information is set forth in Note 2 to the consolidated annual financial statements for the year ended December 31, 2011. The MD&A discusses each operation that is separately defined as a segment.

Production from operations was as follows:

	2011	2010	2009
Copper (tonnes)	75,877	80,035	93,451
Zinc (tonnes) <sup>(1)</sup>	111,445	90,129	101,401
Lead (tonnes) <sup>(1)</sup>	41,130	39,568	43,852
Nickel (tonnes)	-	6,296	8,029
Copper (tonnes)	31,523	29,767	17,325
Tenke attributable (24.75%) <sup>(2)</sup>			

<sup>(1)</sup> Includes production from Galmoy mine which was originally planned to cease operational mining in mid-2009 but continues to mine and sell remnant high-grade ore.

<sup>(2)</sup> The Company's interest in Tenke was reduced to 24.0% on March 26<sup>th</sup>, 2012 as a result of signed modifications to Tenke Fungurume Mining's bylaws that reflect the signed agreements with the DRC government.

### 4.2 Employees

At the end of 2011, Lundin Mining has a total of approximately 1,500 employees and 1,300 contract employees located in Canada, United Kingdom, Portugal, Sweden, Spain and Ireland.

### 4.3 Health, Safety, Environment and Community

Lundin Mining's policy is to conduct its business responsibly and in a manner designed to protect our employees, adjacent communities and the natural environment. The Company is committed to achieving a safe, productive and healthy work environment and to upholding the values of human rights. Lundin Mining seeks to create sustainable value for employees, business partners and the communities in which we work. These commitments are described in the Company's HSEC policy.

The HSEC policy, approved by the Board of Directors, commits to compliance with legal requirements as a minimum and to go beyond those requirements where deemed appropriate.

HSEC planning is part of the Company's business planning processes to assess the potential safety, health and environmental effects of our activities and integrate these considerations into our operational decisions and processes.

The Company is committed to design, develop and operate its facilities with a view to minimizing the environmental impact of its operations; providing efficient use of energy, water and other resources; reducing or preventing pollution, limiting waste generation and disposal; and where waste must be disposed of, doing so responsibly.

The Company has in place closure plans for all its operations and these are reviewed and updated in accordance with relevant national legislation. Each mine has in place an agreed financial mechanism to

meet anticipated closure costs. Wherever practicable, the operations progressively rehabilitate areas no longer required for ongoing operations using environmentally sound methods.

Lundin Mining has a company-wide HSEC system that formalizes the Company's implementation of the HSEC policy supporting consistency across sites owned or operated by the Company, and clearly setting out expectations for HSEC management for joint ventures. The management system describes how the Company's operations and projects will comply with the Company's corporate values and the commitments.

The HSEC system exists to:

- Ensure that sound management practices and processes are in place in sites across the Company resulting in strong HSEC performance.
- Describe and formalize the expectations of the Company with respect to HSEC management.
- Provide a systematic approach to the identification of HSEC issues and ensure that a system of risk identification and risk management is in place.
- Provide a framework for HSEC responsibility and a systematic approach for the attainment of corporate HSEC objectives.
- Provide a structure to drive continuing improvement of HSEC programs and performance.

In applying the HSEC system, the Company engages its employees, contractors, the community, regulators and other interested parties to ensure that stakeholder concerns are considered in managing aspects of our business that have the potential to impact health, safety, the environment and communities.

The Company strives for continuous improvement in its HSEC performance through the development of objectives and targets. To achieve this, operations advise and train employees and contractors as necessary to meet HSEC undertakings and the operations establish clear accountabilities for employees, and especially managers, with respect to their HSEC performance.

To ensure that the Company meets its objectives and targets, management monitors and reviews performance and publically reports progress.

For further information on the Company's social and community programs and other HSEC information please consult Lundin Mining's Sustainability Report which is available on our website.

#### **4.4 Description of Properties**

The following descriptions of Lundin Mining's material properties, being Neves-Corvo, Zinkgruvan, Aguablanca, Galmoy and Tenke Fungurume, are based on filed technical reports, the 2011 Resource and Reserve Estimate Update and on the Company's previously filed material change reports, financial statements and MD&A. Unless noted otherwise, all of the technical reports referenced in this AIF have been filed on SEDAR under the Company's profile. For more detailed information in respect of Lundin Mining's properties, direct reference should be made to these technical reports.

##### **4.4.1 OPERATING MINES**

###### **4.4.1.1 NEVES-CORVO MINE**

###### **4.4.1.1.1 Project Description and Location**

The Neves-Corvo mine is owned and operated by the Portuguese company Somincor, which is a subsidiary of Lundin Mining. It is situated approximately 220 km southeast of Lisbon in the Alentejo district of southern Portugal. The mine site lies some 15 km southeast of the town of Castro Verde and exploits five major orebodies from an underground mine. The ore is processed on-site and tailings are

disposed of in the Cerro de Lobo impoundment some 3 km from the plant. Concentrates are dispatched by rail and road for onward shipping to customers.

The mining operations are contained within a mining concession contract between the State and Somincor covering 13.5 km<sup>2</sup>, located in the parishes of Santa Bárbara de Padrões and Senhora da Graça de Padrões, counties of Castro Verde and Almodôvar, district of Beja. The concession provides the rights to exploit the Neves-Corvo deposits for copper, zinc, lead, silver, gold, tin and cobalt for an initial period of fifty years (from November 24, 1994) with two further extensions of twenty years each.

This mining concession is in turn surrounded by the Castro Verde exploration concession, signed in 2006, covering an area of 549 km<sup>2</sup>. Somincor also holds one further neighbouring exploration concession, the Almodóvar concession, with an area of approximately 420 km<sup>2</sup>.

The mine is operated under an Integrated Pollution Prevention and Control Licence (IPPC) granted by the Portuguese Environmental Agency in 2008.

#### **4.4.1.1.2 Accessibility, Climate, Local Resource, Infrastructure and Physiography**

Neves-Corvo has good connections to the national road network which links with Faro to the south and Lisbon to the north. The mine has a dedicated rail link into the Portuguese rail network and to the port of Setúbal.

There are no major centres of population close to the mine, although a number of small villages with populations numbered in the hundreds lie within the mining concession. Most employees travel to the mine by company-provided buses or private cars.

The climate of the region is semi-arid with an average July temperature of 23°C (maximum 40°C) and an average minimum temperature in winter of 3.8°C. Rainfall averages 426 mm, falling mainly in the winter months.

The topography around the mine is relatively subdued, comprising low hills with minimal rock outcrop. The mine collar is 210 m above sea level. The area supports low intensity agriculture confined to stock rearing and the production of cork and olives.

Fresh water is supplied to the mine via a 400 mm diameter pipeline from the Santa Clara reservoir, approximately 40 km west of the mine. The mine is connected to the national grid by a single 150 kV, 50 MVA rated, overhead power line 22.5 km long.

The mining concession provides sufficient surface rights to accommodate the existing mine infrastructure and allow for expansion if required.

#### **4.4.1.1.3 History**

The Neves-Corvo ore bodies were discovered in 1977. The Portuguese company Somincor was established to exploit the deposit and by 1983, the Corvo, Graça, Neves and Zambujal sulphide deposits had been partially outlined, covering an area of some 1.5 km by 2 km. Rio Tinto became involved in the project in 1985, effectively forming a 49%:51% joint venture with the Portuguese government (EDM). The project was reappraised with eventual first production commencing from the Upper Corvo and Graça orebodies in January 1989.

During the development of the mine, high-grade tin ores were discovered, associated with the copper mineralization, which led to the rapid construction of a tin plant that was commissioned in 1990.

The railway link between Neves-Corvo and Setúbal was constructed between 1990 and 1992 for the shipment of concentrates and the hauling of sand for backfill on the return journey. This was followed between 1992 and 1994 by a major mine deepening exercise to access the Lower Corvo orebody through the installation of an inclined conveyor ramp linking the 700 and 550 levels.

In June 2004, EuroZinc acquired a 100% interest in Somincor for consideration of €128 million. In October 2006, EuroZinc merged with Lundin Mining and the Lundin Mining name was retained.

In 2006, zinc production was commenced at Neves-Corvo with processing through the modified tin plant. In June 2007, Silver Wheaton (formerly Silverstone) agreed to acquire 100% of the life-of-mine payable silver production from the mine, as the mine produces around 0.5 million ounces per year in copper concentrate. Zinc production was suspended in November 2008 due to the low prevailing zinc price. In September 2009, the decision was made to expand the zinc plant at an estimated cost of €43 million, to a design capacity of 50,000 tpa zinc in concentrate and first zinc production was achieved from the expanded plant in mid-2011.

In mid-2009, a copper tailings retreatment circuit was commissioned to recover both copper and zinc, and in late 2010, tailings disposal changed from subaqueous to paste methods at the Cerro do Lobo facility.

In October 2010, the copper rich Semblana deposit was discovered located one km to the northeast of the Zambujal copper-zinc orebody within the Castro Verde exploration concession. In December 2011, following extensive diamond drilling, an initial Inferred Mineral Resource was published. A high-resolution 3D seismic survey carried out in 2011 also identified several new exploration targets in the Neves Corvo vicinity.

A Feasibility Study on the Lombador Phase 1 Project, which contemplated mining this zinc rich orebody and expanding the overall zinc capacity at Neves Corvo to 2.5 mtpa, was completed in September 2011. A conceptual Future Materials Handling Study was initiated in late 2011 to examine options for the mining and extraction of the deeper Lombador and Semblana orebodies.

#### **4.4.1.1.4 Geological Setting**

Neves-Corvo is located in the western part of the Iberian Pyrite Belt, which stretches through southern Spain into Portugal and which has historically hosted numerous major stratiform volcano-sedimentary massive sulphide deposits.

The Neves-Corvo deposits occur within the Volcanic Sedimentary Complex, which consists of acid volcanics separated by shale units, with a discontinuous black shale horizon immediately below the lenses. Above the mineralization, there is a thrust-faulted repetition of volcano-sedimentary and flysch units. The whole assemblage has been folded into a gentle anticline oriented NW-SE which plunges to the southeast, resulting in orebodies distributed on both limbs of the fold. All the deposits have been affected by both sub-vertical and low angle thrust faults, causing repetition in some areas.

#### **4.4.1.1.5 Exploration**

Exploration work within the mining concession has concentrated primarily on the extension of known orebodies by both underground and surface drilling. Some of the Neves-Corvo orebodies have not been completely delineated. Drilling from both surface and underground in the last few years has identified significant new zinc and copper mineralization within the Lombador massive sulphide lens and associated stockworks, as well as important bridge fissural copper mineralization between the Lower Corvo, Neves and Lombador orebodies.

In 2010, a new massive sulphide deposit containing a zone of copper-rich sulphide mineralization was discovered by surface drilling. The new deposit, named Semblana, lies 1.3 km northeast of the Zambujal orebody and is located in the exploration concession that surrounds the mine. In 2011, surface exploration drilling focused on delineating the extent of Semblana and defining an initial Mineral Resource. In December 2011, a National Instrument 43-101 compliant Inferred Mineral Resource of 6.58 million tonnes grading 3.0% copper was announced. In addition, two new copper-rich discoveries were made in late 2011, located approximately 300 metres south of the Semblana resource and 1.4 km south of Semblana in the vicinity of the Tailings Management Facility.

A high resolution 3D seismic survey covering the area immediately east and southeast of the mine was also completed in 2011. This survey was successful in detecting both the Lombador and Semblana massive sulphide bodies in great detail, in addition to identifying several seismic reflectors that have similar characteristics to massive sulphide bodies. Drilling of one of these high-priority reflectors led to the discovery of the high-grade copper sulphides located just south of Semblana.

#### **4.4.1.1.6 Mineralization**

Six massive sulphide lenses have been defined at Neves-Corvo comprising Neves (divided into North and South), Corvo, Graça, Zambujal, Lombador (divided North, South and East), and Semblana. The base metal grades are segregated by the strong metal zoning into copper, tin and zinc zones, as well as barren massive pyrite. The massive sulphide deposits are typically underlain by stockwork sulphide zones which form an important part of the copper orebodies.

#### **4.4.1.1.7 Drilling**

Surface and underground exploration drilling is an ongoing operation at the mine with the work undertaken by both contractors and in-house drill rigs. The nominal hole spacing on the underground diamond drilling is between 17.5 m and 35 m, with surface drilling on a spacing of 75 m to 100 m. As a standard procedure, drill holes, which are all NQ size, are surveyed with an Eastman Single Shot or Reflex EZ-Shot tool at 30 m intervals, which provides an accurate location of the drill intersections.

In 2011, 77,031 m of drilling was completed from surface with 75 holes completed and 32,977 m was drilled from underground.

#### **4.4.1.1.8 Sampling and Analysis**

Industry standard exploration drill core splitting, sampling, insertion of QC samples and density measurement protocols and procedures are in place at Neves-Corvo. In addition to drill core sampling, underground grade control sampling is carried out using face sampling in the areas subject to drift-and-fill mining and short diamond drill holes in the bench-and-fill areas. Samples are prepared on-site and analyzed at either the mine's fully accredited assay laboratory facility or by the ALS Chemex laboratory in Vancouver, Canada.

#### **4.4.1.1.9 Security of Samples**

Data and sample security procedures that conform to industry standards are in place at Neves-Corvo. All drill cores are logged and photographed, and the cores and sampling splits are stored on-site. Traceability records prevent errors of identification and ensure sample history can be followed.

#### **4.4.1.1.10 Mineral Resource and Mineral Reserve Estimates**

Mineral Resources at Neves-Corvo are estimated using three dimensional interpretation and modelling methods with calculations performed using specialized software and in particular Leapfrog® and Vulcan® 3D. The Ordinary Kriging method of interpolation is used to estimate metal grades and a multiple regression formula using the estimated metal grades is used to estimate density.

Mineral Reserves are calculated by the Neves-Corvo mine planning department primarily using Vulcan® 3D software. Stoping volumes are cognisant of the method of access to allow for the cut-off grade boundary and include an allowance for planned and unplanned dilution and ore loss. An effective minimum mining width of 5 m is applied.

The Semblana mineral resource was modelled and estimated using Datamine Studio software. Metal grades were estimated using Ordinary Kriging or Inverse Distance Weighting. Bulk density was estimated using Inverse Distance Weighting.

Details of the June 2011 Mineral Resource and Reserve estimates for Neves-Corvo and Semblana are included in Schedule A, attached to this AIF.

#### **4.4.1.1.11 Mining Operations**

Neves-Corvo is a major underground mine. The principle means of mine access are provided by one vertical 5 m diameter shaft and a ramp from surface. The shaft is used to hoist ore from the 700 m level. The surface is nominally 1200 m above datum. A conveyor decline descends from the 700 m level to the 550 m level and provides ore hoisting from the deeper levels of the mine. The mine is highly mechanized and a number of different stoping methods are employed but the most significant are bench-and-fill and drift-and-fill. Backfill is provided by hydraulically placed sand, paste tailings and internally generated waste rock.

The treatment facility at Neves-Corvo comprises of two processing plants. The copper plant treats copper ores and has a maximum capacity of approximately 2.64 mtpa and the zinc plant (former tin plant) which treats zinc or copper ores was expanded to 1.0 mtpa capacity during 2011. Both processing plants comprise secondary crushing, rod and ball mill grinding circuits, flotation cells and concentrate thickening and dewatering. In mid-2009, modifications to the copper plant were completed to regrind and recover additional copper and zinc concentrate from the copper tailings stream.

Concentrates are transported by road to a Spanish smelter or by rail to a dedicated port facility at Setúbal, Portugal from where they are shipped to smelter customers.

Tailings disposal was changed from subaqueous to paste techniques during 2010 following approval by the Portuguese authorities. Tailings are thickened and pumped from a new facility located at the Cerro de Lobo tailings impoundment, 3 km from the mine site.

Copper and zinc concentrates from the mine are sold to a variety of smelter customers that are primarily European based. Multi-year sales contracts are normally agreed with customers and treatment, refining and penalty charges are typical of those for copper and zinc sulphide concentrates.

The mine operates under an IPPC licence (No.18/2008) granted by the Portuguese Environmental Agency in 2008. The licence includes conditions covering Environmental Management Systems, tailings and waste rock disposal, water and energy consumption, emissions to atmosphere, emissions to water courses and water treatment, noise, industrial waste disposal, emergency and closure planning. Key environmental issues include the acid-generating potential of the ore and waste rocks; the close proximity of the Oeiras River to the mine site; the groundwater is a significant aquifer and connects to local water supplies and the Oeiras River; and the dispersal of dust and noise from the mine site. The mine permit requires that closure plans for the mine are updated every 5 years, and an accumulating closure fund is in place to cover final closure costs.

The corporation tax rate in Portugal is 27.5%, and a local tax of 1.5% is also payable. For 2012 and 2013, an extra tax rate of 3% for profits between €1.5 million and €10 million will be applicable, increasing to 5% for profits above €10 million. Royalties are either a profit-related royalty of 10%, or a revenue-based royalty of 1% (at the State's discretion). The payment may be reduced by 0.25% of the revenue-based royalty provided that the corresponding amount of such percentage is spent on mining development investment.

The current copper Mineral Reserves at Neves-Corvo will support a mine life of around 10 years with copper production, based on currently known reserves, gradually decreasing, and planned zinc production increasing. Exploration efforts will continue to be focused on discovering new high-grade copper resources. Underground development of the Lombador Phase 1 area will continue in 2012 and an exploration drive to enable infill drilling of the deeper Lombador mineralisation will be started. Expansion of the surface zinc plant to 2.5 mtpa has been put on hold pending advancement of a strategic study on future underground access and materials handling systems. Initial materials handling studies have indicated two preferred options; a conventional shaft system and a tunnel boring machine excavated

decline tunnel equipped with conveyors. Trade off studies during 2012 will select a single option for advancement to feasibility study level with completion of this study anticipated by mid-2013.

#### **4.4.1.1.12 Exploration and Development**

Surface drilling will focus on enlarging the Semblana copper mineral resource and testing the numerous seismic reflector targets. Underground drilling will focus on upgrading the Lombador North and South, Neves North and South, Zambujal and Corvo orebodies. Additional high resolution 3D seismic surveying is also planned to extend coverage towards generating additional targets for drill testing.

Further information on the Neves-Corvo mine can be obtained by referencing the following technical reports filed on SEDAR:

1. Reserves and Resource Update, Neves-Corvo, Portugal dated May 2008 and prepared by Neil Burns.
2. Technical Report on the Neves-Corvo Mine, Southern Portugal dated October 2007 and prepared by Mark Owen and Owen Mihalop of Wardell Armstrong International Ltd.

#### **4.4.1.2 ZINKGRUVAN MINE**

##### **4.4.1.2.1 Project Description and Location**

The Zinkgruvan mine is located approximately 200 km south west of Stockholm in south-central Sweden. The mine site is some 15 km from the town of Askersund and comprises a deep underground mine, a processing plant and associated infrastructure and tailings disposal facilities. Concentrates are trucked from the mine to the inland port of Otterbäcken on Lake Vänern from where they are shipped via canal and sea to European smelter customers.

The mining operations are contained within two exploitation concessions covering the deposit and its immediate area. The "Zinkgruvan Concession" was amalgamated from a large number of smaller rights in 2000, has an area of 254 ha and is valid until 2025. The neighboring "Klara Concession" was granted in 2002, has an area of 355 ha and is valid until 2027. These concessions are automatically extendable for periods of 10 years provided the concession is being regularly exploited. In addition, the mine currently holds exploration concessions in the area totaling 10,096 ha. For exploitation concessions granted before 2005, there are no mining royalties in Sweden.

The mine is currently operated under an Environmental Licence granted by the Swedish authorities that is valid until December 2017.

##### **4.4.1.2.2 Accessibility, Climate, Local Resource, Infrastructure and Physiography**

Zinkgruvan has good local road access and is close to the main E18 highway linking Stockholm and Oslo. Rail and air links are available at the town of Örebro some 60 km distant. Lake Vänern, the largest lake in Sweden, is some 100 km distant and provides access to coastal shipping via a series of inland canals and the port of Göteborg.

The climate of the area is mild in the summer with average temperatures of 18°C, while in the winter temperatures are below freezing with a lowest average of -4°C in February. Annual rainfall is approximately 750 mm with modest snowfalls during the winter months.

The topography around the mine comprises gently rolling terrain approximately 175 m above sea level. The area is largely forested and is bisected by slow-moving streams in shallow valleys.

There is ready access to power, telephone lines and domestic water and industrial water sources. The mine owns sufficient freehold surface land to accommodate the existing and planned mine infrastructure.

#### **4.4.1.2.3 History**

The Zinkgruvan deposit has been known since the sixteenth century but it was not until 1857 that large scale production commenced under the ownership of the Belgian Vieille Montagne Company. The processing plant for these operations was initially based in Åmmeberg on the shores of Lake Vättern with ore transported approximately 5 km from the mine site by narrow gauge railway.

In the mid-1970s, a decision was made to significantly expand production to 600,000 tpa. A new shaft, P2, was sunk to access deeper ore and a new concentrator and tailings facility established adjacent to the mine site.

In 1990, Vieille Montagne merged with Union Minière, and in 1995, North Limited of Australia acquired Zinkgruvan mine. In August 2000, Rio Tinto became the owner of the mine following its acquisition of North. In June 2004, Lundin Mining purchased the mine from Rio Tinto.

In December 2004, Silver Wheaton agreed to purchase the LOM silver production from the Zinkgruvan mine. In October 2007, the Zinkgruvan Expansion Programme was announced, a project to increase ore production by 300,000 tpa through the addition of copper to the current zinc-lead production.

In late 2010, the copper plant was commissioned and during 2011 modifications were made to allow this plant's 300,000 tpa ore capacity to be used to also treat zinc/lead ores. In November 2010, an access ramp from the surface to the underground workings was completed, allowing a significant increase in the mine's operational flexibility.

#### **4.4.1.2.4 Geological Setting**

Zinkgruvan is located in the south-west corner of the Proterozoic aged Bergslagen greenstone belt. The district is composed of a series of small, elongated basins with felsic metavolcanics overlain by metasediments. The basins are surrounded by mainly granitoid intrusions of which the oldest are the same age as the metavolcanics.

The Zinkgruvan deposit is situated in an east-west striking synclinal structure. The tabular-shaped Zn-Pb-Ag orebodies occur in a 5 m to 25 m thick stratiform zone in the upper part of the metavolcanic-sedimentary group. The orebody is 5 km long and is proven to a depth of 1,500 m below surface. A major sub-vertical fault splits the ore deposit in two parts, the Knalla mine to the west and the Nygruvan to the east.

#### **4.4.1.2.5 Exploration**

Exploration has focused primarily on replacing depleted resources initially by exploring the Nygruvan and Burkland areas at depth and more recently in the Knalla area to the west. Due to the depth of the exploration areas and relatively complex geometry, future exploration will be done by underground drilling. Additional underground development is required in order to provide drill platforms to fully evaluate the potential of new zones intersected from surface drilling.

#### **4.4.1.2.6 Mineralization**

The Zinkgruvan orebodies are dominated by sphalerite and galena and are generally massive, well banded and stratiform. Remobilization of galena and silver has occurred in response to metamorphism and deformation, and is most pronounced in the lead-rich western extension of Nygruvan and in the Burkland area.

Copper stockwork mineralization has been identified in the structural hanging wall of the Burkland deposit. Chalcopyrite is the main copper mineral and occurs as coarse disseminations and patches within a marble host rock.

#### **4.4.1.2.7 Drilling**

Underground exploration, comprising resource and stope definition drilling, is carried out on an ongoing basis. Stope definition holes are drilled from underground with intersections typically on 15 m by 20 m centres. All drill holes are surveyed at 3 m intervals using Maxibore surveying equipment which provides an accurate location of the drill intersections. In 2011, 21,000 m of drilling was completed from underground.

#### **4.4.1.2.8 Sampling and Analysis**

Industry standard exploration drill core splitting, sampling, insertion of QC samples and density measurement protocols and procedures are in place. Samples are prepared on-site and sent to ACME's laboratory in Vancouver, Canada for assay.

#### **4.4.1.2.9 Security of Samples**

Data and sample security procedures that conform to industry standards are in place at Zinkgruvan. All drill core is logged and photographed, and the cores and sampling splits are stored on-site in a new purpose built facility at the mine site. Traceability records prevent errors of identification and ensure sample history can be followed.

#### **4.4.1.2.10 Mineral Resource and Reserve Estimates**

Mineral resources at Zinkgruvan are estimated using two methods: the polygonal method and 3D block modelling. The polygonal method is generally used at the early stages of resource assessment and is carried out on parts of Nygruvan, Mellanby, Borta Bakom and Sävsjön. The remaining areas of Nygruvan and all of Burkland are estimated using block modelling with Microstation® AutoCad and Prorok® software. Ordinary Kriging is used for grade estimation and density estimation uses a regression formula based on estimated metal grades.

Mineral Reserves are calculated from the resources using Prorok® and Microstation® software. A zinc equivalent cut-off is applied together with dilution and mining recovery factors that are based on the mine's long operating experience.

Details of the June 2011 Mineral Resource and Reserve estimate for Zinkgruvan are included in Schedule A, attached to this AIF.

#### **4.4.1.2.11 Mining Operations**

Zinkgruvan is an underground mine with a long history. Mine access is currently via three shafts, with the principle P2 shaft providing hoisting and man access to the 800 m and 850 m levels with the shaft bottom at 900 m. A ramp connecting the underground workings with surface was completed in 2010 and now provides vehicle access direct to the mine. A system of ramps is employed to exploit resources below the shaft and the deepest mine level is now at 1,130 m below surface. The mine is highly mechanized and uses longhole primary secondary panel stoping in the Burkland area of the mine, sublevel benching in the Nygruvan area and in the Cecilia area. All stopes are backfilled with either paste tailings and cement or waste rock.

The processing plant is located adjacent to the P2 shaft. The run-of-mine ore is secondary crushed and then ground in an AG and ball mill circuit. A bulk flotation concentrate is produced initially before further flotation to separate zinc and lead concentrates. The concentrates are thickened and filtered and then stockpiled under cover. Tailings are pumped some 4 km to a dedicated tailings impoundment from which decant water is returned to the process.

A separate 0.3 mtpa copper treatment line in the processing plant was commissioned during 2010, and copper production has commenced. This line was further modified to allow it the flexibility to treat zinc-lead ore as well as copper during 2011.

Current Mineral Reserves at Zinkgruvan are sufficient for a mine life in excess of 10 years and the mine is able to fund all currently planned capital programmes through cash flow.

Zinc and lead concentrates from the mine are sold to a variety of European smelters. Multi-year sales contracts are normally agreed upon with customers and treatment, refining and penalty charges are typical of those for zinc and lead sulphide concentrates. The lead concentrates are particularly high grade and contain elevated levels of silver.

The mine is currently operated under an Environmental Licence granted by the Swedish authorities that is valid until December 2017. The licence includes conditions covering production levels, tailings disposal, water discharge limits, hazardous materials, process chemicals, water recirculation, noise levels, dust pollution, waste handling, energy use and closure planning.

The corporation tax rate in Sweden is 26.3% and Zinkgruvan does not pay mining royalties.

#### **4.4.1.2.12 Exploration and Development**

Exploration activities in 2012 will focus on converting inferred Mineral Resources to indicated resources through in-fill definition drilling, defining new inferred resource through down-dip step-out drilling of existing Mineral Resources and continuing exploration drives in order to establish underground drill platforms to allow drilling of deep extensions of known orebodies.

Further information on Zinkgruvan mine can be obtained by referencing the following technical report filed on SEDAR:

1. Mineral Reserves and Mineral Resources of the Zinkgruvan Mine in South-Central Sweden dated March 2009 and prepared by Per Hedström, Lars Malmström and Doug Syme, current or former employees of Zinkgruvan Mining AB.

#### **4.4.1.3 AGUABLANCA MINE**

##### **4.4.1.3.1 Project Description and Location**

The Aguablanca mine is located approximately 100 km north of Seville in the Extremadura region of southern Spain. The mine lies some 30 km south of the town of Monesterio, and comprises an open pit mine, processing plant and associated waste and tailings management facilities. Concentrates from the mine are trucked to the port of Huelva for onward shipping to customers.

In December 2010, a significant slope failure occurred that affected the main access ramp to the open pit and led to a suspension of mine and mill operations. Mining operations recommenced in August 2011 and processing is expected to restart in the second half of 2012. Remaining Mineral Reserves at the mine represent around 5 years of production.

The mining rights for Aguablanca are covered under a *Reserva Definitiva a Favor del Estado* which consists of 95 contiguous claims covering an area of 2,862 ha. The *Reserva Definitiva* is valid for 30 years from June 2003 and is extendable for a further 30 years. Mining royalties of 2% of Net Smelter Return are payable to the Spanish state.

The mine operates under environmental permits granted by the Spanish Government. These permits cover all aspects of the operations including tailings management and project closure and were obtained in June 2003.

##### **4.4.1.3.2 Accessibility, Climate, Local Resource, Infrastructure and Physiography**

Aguablanca has excellent road connections to the new A66 national highway which runs northwards from Seville and connects by a further national highway to the port of Huelva. The mine site lies approximately

10 km east of this road and is adjacent to the village of El Real de la Jara. There is ready access to power, telephone lines, and domestic and industrial water sources.

There are no major population centres close to the mine, although a number of small villages with populations numbered in the hundreds do lie close to the mine. Most employees travel to the mine by private cars.

The climate of the region is Mediterranean with relatively mild winters and hot dry summers. The mine lies at an elevation of 450 to 500 m above sea level in an area of low hills with moderate relief. Vegetation comprises trees and bushes forming classic Mediterranean forest, with local meadows comprising grass, oak, cork and olive trees.

The mine owns sufficient freehold surface land to accommodate the existing and planned mine infrastructure.

#### **4.4.1.3.3 History**

Exploration for nickel and copper mineralization has been carried out in the Aguablanca area since the mid-1980s. The Aguablanca deposit was discovered in 1993/4 following stream sediment sampling and subsequent diamond drilling by a Presur (Spanish state)/Rio Tinto Minera joint venture. The Aguablanca project was acquired by Rio Narcea in mid-2001 from the then owner Presur/Atlantic Copper S.A..

Construction of the Aguablanca mine started in November 2003 with first commercial production commencing in January 2005 and the first shipment of concentrate in May of the same year. With the commencement of the open pit mine, a 2.7 km long underground decline was developed to allow exploration of the mineralization beneath the planned open pit.

The Aguablanca mine was acquired by Lundin Mining in July 2007 through its purchase of Rio Narcea.

#### **4.4.1.3.4 Geological Setting**

The area of the Aguablanca nickel-copper deposit is underlain by mafic and ultramafic rocks of the Aguablanca Stock (AS), which has intruded carbonate rocks of Cambrian age. The AS is a small gabbroic intrusion (approximately 2.3 km<sup>2</sup>) located along the northern contact of the much larger Santa Olalla Pluton (SOP). The northern and southern limits of the SOP are marked by major fault zones. A well developed contact metamorphic aureole surrounds the AS and SOP exemplified by skarn mineralization. Aguablanca represents a somewhat unique example of a magmatic sulphide breccia hosted by gabbro and gabbro-norites.

#### **4.4.1.3.5 Exploration**

Lundin Mining holds exploration rights over an area of 1,864 km<sup>2</sup>, largely to the north and west of Aguablanca, known as the Ossa Morena. Additional exploration potential exists for nickel-copper and copper-gold mineralization within this area.

#### **4.4.1.3.6 Mineralization**

There are two mineralized bodies at Aguablanca. The larger South or Main Zone is some 400 m long on strike and dips steeply to the north. It has widths of up to 100 m and a known depth of over 600 m. The North Zone is also steeply dipping, 125 m long, up to 50 m thick and has a known depth of 300 m.

Three main types of sulphide mineralization have been recognized and are currently mined separately before blending from stockpiles.

#### **4.4.1.3.7 Drilling**

A total of approximately 3,400 m of drilling was completed in late 2009 - early 2010 in order to increase the data density between the 250 and the 350 mine levels. No other exploration drilling was carried out in 2010 nor in 2011.

#### **4.4.1.3.8 Sampling and Analysis**

Grade control sampling is carried out using open hole percussion rigs drilling 8 m deep holes on the open pit benches.

Samples are prepared on site and analysed at the mine's assay laboratory facility. Repeat samples are sent to the OMAC laboratory in Ireland for analysis.

#### **4.4.1.3.9 Security of Samples**

Data and sample security procedures that conform with industry standards are in place at Aguablanca. All drill core has been labelled, logged and photographed, and the cores and sampling splits are all stored on site. A bar code tagging system is in place at the mine.

#### **4.4.1.3.10 Mineral Resource and Reserve Estimates**

Mineral resources at Aguablanca were estimated at 30 June 2011 using three dimensional geological block modelling methods and specialised software (Datamine®). The Ordinary Kriging method of interpolation was used to estimate six metal grades (Ni, Cu, Pt, Pd, Co and Au) and the Inverse Distance Squared method was used for the density estimation.

Mineral Reserves were estimated from the June 2011 Mineral Resource block model within a re-optimised open pit shell produced by Golder Associates (using the specialised software Whittle® Four-X) in March 2011.

Details of the June 2011 Mineral Resource and Reserve estimate for Aguablanca are included in Schedule A attached to this AIF.

#### **4.4.1.3.11 Mining Operations**

The Aguablanca mine is a single open-pit mine. Mining operations recommenced in August 2011 with a new mining contractor using a conventional drill and blast, and truck and shovel fleet. The pit is mined with 8 m benches and the final slopes are designed with a double bench configuration. Waste rock is stacked to the immediate north of the open pit and the waste dumps form the downstream wall of the tailings impoundment.

Processing operations are expected to restart in the second half of 2012. Run-of-mine ore is stockpiled, blended and then primary crushed. The crushed ore is conveyor fed to a conventional grinding and flotation circuit to produce a bulk nickel-copper concentrate. The concentrate is thickened and filtered to produce a filter cake suitable for onward transport. The concentrate is truck hauled approximately 125 km to Huelva port from where it is shipped to customer smelter facilities. Tailings from the process plant are pumped to a fully lined tailings impoundment to the north of the plant site area. Decant water from the tailings dam is returned to the process plant.

All bulk nickel-copper concentrate produced from the Aguablanca operation is sold under a single, long-term contract. Principle payable metals are nickel and copper with by-product payments made for platinum, palladium, cobalt and gold, and the payment terms are typical of those for bulk nickel/copper sulphide concentrates.

The Aguablanca Mine operates under environmental permits granted by the Spanish Government. These permits include conditions covering environmental management systems, tailings and waste rock

disposal, water and energy consumption, emissions to atmosphere, emissions to water courses and water treatment, noise, industrial waste disposal, emergency and closure planning. Key environmental issues include; the potential lack of water during drought periods; the dispersal of dust and noise from the mine site; and mine site rehabilitation.

The corporation tax rate in Spain is 30% and royalties of 2% of NSR apply.

#### **4.4.1.3.12 Exploration and Development**

In 2012, continued regional exploration in the Ossa Morena area is planned.

An underground mining study was initiated in late 2011 to define potential high grade feed to supplement open pit production.

Further information on Aguablanca mine can be obtained by referencing the following recent technical report filed on SEDAR:

1. Technical Report on the Aguablanca Ni-Cu deposit, Extremadura Region, Spain for Lundin Mining Corporation dated March 2009 and prepared by Juan Alvarez, Sia Khosrowshahi and Juan Pablo Gonzalez of Golder Associates Global Iberica, S.L.U.

#### **4.4.1.4 GALMOY MINE**

The Galmoy zinc-lead mine is located in south-central Ireland in County Kilkenny. Galmoy is an underground mine with most of the workings between 100 m and 160 m below surface. The primary access is by a decline and mine production is carried out by room-and-pillar and by bench-and-fill methods. The Galmoy flow sheet employed a conventional SAG-ball mill grinding circuit with differential flotation for the production of lead and zinc concentrates. Tailings were placed in a fully lined, multi-phase impoundment at the mine site.

The Galmoy mine ceased concentrate production at the end of the second quarter 2009. The closure plan for the mine is being followed with the mill now dismantled and sold, and rehabilitation of the tailings management facility underway. Closure activities will continue in 2012 and the restricted cash closure fund accumulated during the mine life will continue to be drawn to meet the closure obligations.

In late 2009, following approval from the relevant Irish authorities, a test batch of high-grade ore was mined and trucked to an adjacent mine for treatment. This was successful and further ore deliveries were made in 2010 and 2011, and will continue until mid-2012.

Details of the June 2011 Mineral Resource and Reserve estimate for Galmoy are included in Schedule A, attached to this AIF.

#### **4.4.1.5 TENKE FUNGURUME MINE**

##### **4.4.1.5.1 Property Description and Location**

TFM's copper-cobalt deposits comprise one of the world's largest known copper-cobalt resources. The deposits are located on contiguous concessions which total in excess of 1,500 km<sup>2</sup>. These concessions are located in Katanga Province, DRC, approximately 175 km northwest of Lubumbashi, the provincial capital.

Construction started in late 2006 on open-pit and oxide ore processing facilities designed to produce 115,000 tpa of cathode copper and over 8,000 tpa of cobalt in hydroxide. Commissioning of the copper facilities occurred at the end of the first quarter 2009, and of the cobalt hydroxide facilities at the end of the second quarter. By year end 2009, full name plate capacities for both products were being achieved. Subsequent debottlenecking and plant upgrades have allowed expansion to increase to 132,000 tpa of cathode copper and approximately 11,000 tpa cobalt. A Phase 2 Expansion of the plant was announced

in November 2011, which will see production increase to at least 195,000 tpa of copper cathode and 15,000 tpa cobalt hydroxide.

This is one of several stages of development contemplated with the objective of ultimately producing in upwards of 500,000 tpa of copper mining multiple deposits concession-wide.

#### **4.4.1.5.2 Accessibility, Climate, Local Resources, Infrastructure and Physiography**

The main highway, railroad and power line connecting Kolwezi and Likasi with Lubumbashi pass through the concessions. Scheduled air services are available between Lubumbashi and the capital Kinshasa, as well as from Johannesburg, South Africa and Zambia. An airstrip constructed on the concession can accommodate freight aircraft and small passenger jets. Most copper and cobalt product and bulk mine consumables are transported primarily by truck and to an extent by rail between Tenke and ports in Durban, South Africa and Dar-es-Salaam, Tanzania.

The site climate is characterized as mild, rainy, sub-tropical mid-latitude with dry winters, with three seasons. The average annual rainfall is approximately 1,150 mm. Monthly average temperatures are 28°C (max); 20°C (min) in September and 22°C (max); 13°C (min) in June.

Tailings facilities are located to the north of the process plant site and a first raise of the initial facility was completed during 2010. The current tailings storage location is of sufficient size to handle the majority of currently proven/probable reserves. Other adjacent areas have been identified to provide life-of-mine storage capacity. A potential location for a future sulphide concentrator has been identified as have potential heap leach pad areas.

Electrical power is provided from the national grid. The local Nseke hydro power station is being renovated and expanded as part of the project and new local power lines have been constructed. Water from local boreholes supplements runoff water collected and the project is operated in line with a zero discharge water management philosophy.

The dominant landform is the Dipeta Syncline, an east-west trending valley approximately 15 km long and 3 km wide. The Dipeta River runs along the valley bottom while the Kwatebala, Tenke (formerly called Goma) and Fwaulu orebodies lie on the north-western crest of this valley. The orebodies presently form hills and ridges rising to elevations of about 1,500 m above sea level and up to 170 m above adjacent valleys. The plant site elevation is 1,200 m above sea level. The ore deposits lie on a surface water divide, with waters to the north flowing into the Mofya River and waters to the south flowing into the Dipeta River.

The flora of the concessions is dominated by an agricultural mosaic of croplands and fallow fields. The second most common vegetation type is miombo woodland. The third most common type of vegetation is degraded miombo woodland (miombo woodland that has been impacted by agricultural clearing activity). Copper-cobalt vegetation types occupy less than five percent of the area.

#### **4.4.1.5.3 History and Development Terms**

The Tenke Fungurume deposits have a history dating back to at least 1917. A controlling interest in the concessions was acquired from Gécamines following a lengthy tender process, and in November 1996, pursuant to a mining convention and TFM formation agreement, the concessions were transferred to TFM in exchange for a series of transfer bonus payments and other significant commercial and development commitments. TF Holdings paid Gécamines the first stage of the transfer payments (\$50 million) in May 1997.

In December 1998, Tenke Mining concluded an option agreement with BHP Copper Inc. (now BHP Billiton ("BHPB")) which established a formal structure for BHPB to acquire, directly or indirectly, a controlling interest in the Tenke Fungurume project. In December 2000, Phelps Dodge entered into an agreement with BHPB, whereby Phelps Dodge had the opportunity to earn up to one-half of BHPB's

position. On September 13, 2002, BHPB's rights and obligations under the option agreement with the Corporation were formally transferred to Phelps Dodge.

As a result of the DRC's new 2002 World Bank sponsored mining code and other developments resulting from the DRC conflict, an extensive renegotiation process commenced upon formation of the transitional government in 2003, which successfully concluded with amended agreements ("Amended Agreements") in late 2005. Pursuant to the terms agreed in the Amended Agreements, the single purpose joint venture company, TF Holdings then controlled 70:30 by Phelps Dodge and Tenke Mining, agreed to pay Gécamines an additional US\$50 million in stages based on pre-agreed development-related milestones. In accordance with shareholding agreements finalized between Phelps Dodge and Tenke Mining in January 2004, Phelps Dodge was obligated to fund \$42.5 million of this balance, with Tenke Mining funding the remaining \$7.5 million.

Upon the entry into force of the Amended Agreements, TF Holdings paid Gécamines \$15 million leaving \$35 million due according to the following milestone schedule: \$5 million on a positive build decision; \$10 million on commencement of commercial operations; and \$10 million on each of the two successive anniversaries of commencement of commercial operations. As the deposits have been brought to the 'exploitation stage', TFM enjoys all rights and privileges with respect to mining activity including surface usage. A positive build decision was made in December 2006 by then operator Phelps Dodge.

Under the terms of the Amended Agreements, TF Holdings committed to start the first phase of facilities with a minimum production level of 40,000 tpa copper and associated cobalt. In fact, initial facilities were ultimately designed for a capacity of 115,000 tpa copper production. The Amended Agreements contain objectives without guarantee of reaching in excess of 130,000 tpa copper production by year 5 and 400,000 tpa by year 11 of operations, subject to a number of qualifications including DRC conditions and markets.

TFM was established in December 1996 under the DRC Companies Act and formed for the purpose of developing the deposits of copper, cobalt and associated minerals under mining concession n° 198<sup>1</sup> and mining concession n° 199<sup>2</sup> granted to TFM in 1996 at Tenke and Fungurume. In early 2007, Freeport acquired Phelps Dodge, which resulted in them taking over as operator and owner of a 70% interest in TF Holdings. In mid- 2007, Lundin Mining acquired Tenke Mining, resulting in Lundin Mining controlling the remaining 30% of TF Holdings. This resulted in FCX indirectly holding 57.75% of TFM, and Lundin Mining indirectly holding 24.75% of TFM. Gécamines held the balance of ownership – 17.5% by way of a directly held carried interest in TFM.

In accordance with the Amended Agreements, a Base Metals Royalty is payable at the rate of 2% of net sales. In addition, a 1% net sales metals export duty applies. Full repatriation of funds is allowed, subject to a 10% expatriated dividends withholding tax. Income tax is payable at the rate of 30% and certain other minor taxes and duties apply as defined in TFM's Amended Agreements consistent with the 2002 DRC Mining Code Title IX. In addition to the 15% of the Base Metals Royalty that is defined to be repatriated by the GDRC to the region of the mine, TFM has committed to a 0.3% net sales social fund, to be administered annually to benefit local communities.

In February 2008, the Ministry of Mines, Government of the DRC, sent a letter seeking comment on proposed material modifications to the mining contracts for the Tenke Fungurume concession, including the amount of transfer payments payable to the government, the government's percentage ownership and involvement in the management of the mine, regularization of certain matters under Congolese law and the implementation of social plans.

In October 2010, the government of the DRC announced the conclusion of the review of Tenke Fungurume Mining SARL's mining contracts. The conclusion of the review process confirmed that TFM's existing mining contracts are in good standing and acknowledged the rights and benefits granted under

<sup>1</sup> Renumbered n° 123 by the *Cadastre Minier Certificat d'Exploitation* n° CAMI/CE/940/2004 dated November 3, 2004; subsequently divided and renumbered n° 123, n° 9707 and n° 9708 by the *Ministère des Mines* through Ministerial Decree dated February 20, 2009.

<sup>2</sup> Renumbered n° 159 by the *Cadastre Minier Certificat d'Exploitation* n° CAMI/CE/941/2004 dated November 3, 2004; subsequently divided and renumbered n° 159, n° 4728 and n° 4729 by the *Ministère des Mines* through Ministerial Decree dated July 7, 2006.

those contracts. TFM's key fiscal terms, including a 30% income tax rate, a 2% mining royalty rate and a 1% export fee, will continue to apply and are consistent with the rates in the DRC's current Mining Code. In connection with the review, TFM made several commitments, which have been reflected in amendments to its mining contracts, including: an increase in the ownership interest of Gécamines, which is wholly owned by the government of the DRC, from 17.5% (non-dilutable) to 20.0% (non-dilutable), resulting in a decrease of Freeport effective ownership interest from 57.75% to 56% and Lundin Mining's effective ownership interest from 24.75% to 24%; an additional royalty of \$1.2 million for each 100,000 tonnes of proven and probable copper reserves above 2.5 million tonnes at the time new reserves are established by FCX; additional payments totalling \$30 million to be paid in six equal installments of \$5 million upon reaching certain production milestones; conversion of \$50 million in intercompany loans to equity; a payment of approximately \$5 million for surface area fees and ongoing surface area fees of approximately \$0.8 million annually; incorporating clarifying language stating that TFM's rights and obligations are governed by the ARMC; and expanding Gécamines' participation in TFM management. TFM has also reiterated its commitment to the use of local services and Congolese employment. In connection with the modifications, the annual interest rate on advances from TFM shareholders increases from a rate of LIBOR plus 2% to LIBOR plus 6%.

In December 2010, the addenda to TFM's ARMC and Amended and Restated Shareholders' Agreement were signed by all parties. In April 2011 the amended agreements were ratified by a Presidential Decree. On March 26, 2012 the President and Prime Minister of the DRC signed a decree approving the bylaw changes for TFM. Accordingly, the change in Lundin Mining's ownership interest in TFM and the conversion of intercompany loans to equity is now effective.

#### **4.4.1.5.4 Geological Setting**

The Tenke Fungurume copper-cobalt deposits are typical of those that comprise the Central African Copperbelt. The Copperbelt is located in a major geological structure called the Lufilian Arc, a 500 km fold belt that stretches from Kolwezi in the southern DRC to Luanshya in Zambia. The deposits of the Tenke Fungurume district are located at the northernmost apex of the arc. The arc formed between the Angolan Plate to the southeast and Congo Plate to the northwest during the late Neoproterozoic, approximately 650 to 600 million years before present (Ma). Rocks in the arc are exposed in a series of tightly folded and thrust anticlines and synclines, generally trending east-west to southeast-northwest in the southern DRC. The Tenke Fungurume group of sediment hosted copper cobalt deposits occurs near the base of a thick succession of sedimentary rocks belonging to the Katanga System of Proterozoic age (1050-650 Ma).

The older rocks of the basement complex belonging to the Kibara Supergroup form the framework within which the Katangan sediments were deposited and consist of granitic rocks and metamorphosed sediments. Sedimentation took place in shallow intra-cratonic basins bounded by rifts. A series of cratonic events of Pan African age (650 Ma to 500 Ma) resulted in extensive deformation of these rocks. The principal tectonic event is referred to as the Lufilian Orogeny and this led to the formation of the Lufilian Arc. All of the major Zambian and Congolese copper-cobalt deposits are located along this 500 km long arcuate structure, which extends from Kolwezi in the Congo to Luanshya in Zambia. The Tenke and Fungurume deposits are located in the northernmost apex of the arc.

#### **4.4.1.5.5 Exploration and Concession Potential**

The mineral concessions have been subject to multiple phases of exploration over time. Exploration in 2011 focused on finding additional high-grade oxide resources and the investigation of deeper mixed and sulphide mineralization. A total of 78,742 m of diamond drilling was completed during 2011 in 439 individual holes on 10 different deposits.

In addition to the diamond drilling programmes, green field exploration was carried out during 2011 with surface mapping of numerous, unworked écailles, and regional stream sediment and soil geochemistry sampling over the entire concession.

Due to data and time availability, many of the known deposits have yet to be assessed with mineral resource and reserve models. The Tenke Fungurume concessions remain extensively under-explored.

#### **4.4.1.5.6 Mineralization**

The copper-cobalt mineralization is mainly associated with two dolomitic shale horizons (RSF and SDB respectively), each ranging in thickness from 5 m to 15 m, separated by 20 m of cellular silicified dolomite (RSC).

The main economic minerals present are malachite, chrysocolla, bornite, and heterogenite. Primary copper and cobalt mineralogy is predominately chalcocite, digenite, bornite, and carrollite. Oxidation has resulted in widespread alteration producing malachite, pseudomalachite, chrysocolla (hydrated copper silicate) and heterogenite.

The primary copper-cobalt mineral associations are homogeneous in both mineralized zones and any variations are due to the effect of oxidation and supergene enrichment. Consequently the mineral assemblages can be grouped into three main categories dependent upon the degree of alteration – oxide, mixed and sulphide zones. Dolomite and quartz are the main gangue minerals present. Dolomite or dolomitic rocks make up the bulk of the host strata. Weathering of the host rocks is normally depth-related, intensity decreasing with increasing depth, producing hydrated iron oxides and silica at the expense of dolomite, which is leached and removed.

#### **4.4.1.5.7 Drilling**

The exploration and drilling history of Tenke Fungurume deposits began in 1919. UMHK explored the surface and drilled exploration core holes between 1919-1921, 1942-1951 and 1958-1968. Gécamines conducted exploration and drilling 1968-70 and 1981-1991. SMTF carried out exploration and core drilling 1971-1976. TFM carried out additional core drilling in 1997. These campaigns totalled 186,376 m of drilling plus mapping, trenching and exploration adits. Exploration core drilling carried out by PD/FCX between 2006 and the end of 2011 comprised 2,325 core holes totaling approximately 366,000 m. Reverse circulation drilling was used locally to drill through unmineralized waste. The 2011 exploration drilling took place on Kwatebala, Fwaulu, Tenke, Fungurume, Lutanda, Mambilima, Pumpi, Zakeo and Zikule.

In 2012, exploration will be targeted at the replacement of the mineralization depleted, further increases in high grade oxide resources and ongoing investigation of deeper mixed and sulphide resources. A further 100,000 m of drilling is planned, including infill and deeper drilling on the known orebodies of Fungurume, Mambilima, Mwadinkomba, Pumpi, Sefu and Tenke together with green field target drilling on Kamalondo and the Mwadinkomba Anticline.

In 2012, an underground bulk sample of mixed/sulphide mineralization will be obtained via a small shaft and underground development in the Fungurume orebody for metallurgical testwork purposes.

#### **4.4.1.5.8 Sampling and Analysis**

Industry standard exploration drill core splitting, sampling, QC sample insertion and density measurement protocols have been followed by Phelps Dodge and subsequently by FCX. An independent audit to review sampling activities with respect to quality assurance, quality control and sample security was completed in the first quarter 2009. In addition to drill core and drill cutting sampling, open-pit grade control sampling is carried out using a trench cutting tool.

Samples are prepared on-site and analyzed at the mine's assay laboratory facility. Strict QA/QC protocols are in place including placement and assaying of duplicates, blanks and check samples. A computerized Laboratory Information Management System is used to manage data.

#### **4.4.1.5.9 Security of Samples**

Data and sample security procedures that conform to industry standards are in place. All drill cores are logged and photographed and the cores and sampling splits are stored on-site. These and other traceability records prevent errors of identification and ensure sample history can be followed.

#### **4.4.1.5.10 Mineral Resource and Mineral Reserve Estimates**

The current mineral resources at Tenke Fungurume have been estimated with 12 deposit models within the concessions: Kwatebala, Tenke, Fwaulu, Mwadinkomba, Kansalawile, Fungurume, Fungurume V1/VI Extension, Katuto, Shinkusu, Kazinyanga, Mambilima and Pumpi.

Mineral Resources have been estimated using three dimensional modelling methods with Minesight® software being used for geological modeling. Grade estimation has been carried out using specially developed Local Anisotropy Kriging (LAK) techniques to account for the narrow and complex nature of the orebodies.

The open-pit designs were optimized for all the twelve deposits listed above. Datamine NPV Scheduler was used for nine of the deposits with Tenke Fungurume and Katuto being evaluated using Minesight® as it uses a rotated model. In each case, a Lerch Grossman algorithm was used to maximize the gross value of the pit. Pits were designed with 38 degree inter-ramp slope angle, 35 degree overall slope angle and double 5 m benches between berms. Input parameters to the open-pit optimizations were updated in 2011 and include revisions to the mine operating costs, cobalt recovery factors and the gangue acid consumption estimations.

Dilution is potentially a significant issue as mineralized zones are long, typically narrow (6 m to 15 m wide), faulted and folded, and contacts are relatively sharp. To address this issue, the resource and reserve models have block dimensions of 5 m by 2.5 m by 2.5 m; the ore mining fleet uses small equipment and 0.625 m ore cuts broken by the surface miners. For mine planning purposes, resource grades are reduced by 5% to account for anticipated grade dilution during operations. A Minesight® ore control system based on the reserve block model and refined by trench sampling is used to control the selectivity of mining.

Details of the December 2011 resource and reserve estimate for Tenke Fungurume are included in Schedule A, attached to this AIF.

#### **4.4.1.5.11 Mining Operations**

The Tenke Fungurume operation mines copper-cobalt oxide ores by open-pit mining techniques. Continuous miners are used to break the ore, and drill and blast is employed in the waste rock. Conventional loaders and trucks transport the ore to the crusher or stockpiles and the waste to dumps. Larger mining equipment is currently being introduced to enable increased mining rates. In 2011, production was sourced primarily from the Kwatebala orebody with some Tenke ore also being mined for the first time towards year end. The other orebodies are scheduled to be mined in a number of phases over time.

The latest proven process technology is being used to extract copper and cobalt. Copper is extracted using standard SAG milling, sulphuric acid leach, solvent extraction and electro-winning to produce copper cathode. Solution from the copper SXEW plant feeds the cobalt plant where cobalt hydroxide is produced through purification and precipitation processes. Copper is marketed with guidance from FCX's global copper marketing programme. Cobalt is sold as cobalt hydroxide under contract and on the spot market.

Nominal daily mill feed of oxide ore has increased from the original design of 8,000 tpd to 11,000tpd following several phases of plant debottlenecking and upgrading. Planned copper production levels have increased from 115,000 tpa to 132,000 tpa.

Capital investment of approximately \$2.0 billion was made for the initial project facilities, which included aspects to support major future expansions. This included a \$140 million loan to accomplish a multi-year provincial hydro power rehabilitation project to provide reliable power to the project and national grid. Total power available to the project resulting from the power loan investment under agreement with SNEL (DRC power authority) is in excess of 200 MW to support expansions, which is more than sufficient for current plans.

A Phase 2 expansion of Tenke Fungurume is currently underway which will increase annual copper production by 50% to approximately 195,000 tonnes copper cathode and 15,000 tonnes cobalt hydroxide. The \$850 million expansion includes additional mining equipment, mill upgrades, acid plant expansion and a doubling of the existing tank house capacity. The expansion is due for completion in 2013 and will result in an excess of SX-EW capacity. During 2011, test scale on/off heap leach pads were also constructed on site to evaluate the potential of commencing heap leaching of the low grade ores that are currently being mined and stockpiled, and future utilization of the excess SX-EW capacity.

Further expansion studies for Tenke Fungurume are also underway with mining and processing scenarios for future mixed and sulphide mineralization being evaluated by FCX.

#### **4.4.1.5.12 Environmental and Social Aspects**

The project has been developed in accordance with Equator Principles, Voluntary Principles of Security and Human Rights, applicable World Bank/IFC standards and the Extractive Industries Transparency Initiative. Development and operation are subject to a number of DRC laws, regulations, standards dealing with the protection of public health, public safety and the environment. Permits and authorizations are in place for construction and operation.

Key environmental issues addressed by the project include mitigation of damage to sensitive indigenous flora unique to highly mineralized areas of the DRC copper belt, design of the project to zero discharge objectives, and adoption of fully plastic-lined process water and tailings storage impoundments. As this is the first commercial development of mining on the concessions, there are no known existing environmental liabilities.

Key social investments addressed during project development include extensive community consultation, stimulation of both direct and indirect employment – during the initial phase of construction, employment peaked at more than 8,000 DRC nationals. The Phase 2 Expansion Project employed more than 2,000 people. Operations direct employment is greater than 4,000 personnel, most who are DRC citizens. Indirect effects are expected to be responsible for more than 5,000 jobs created in the region.

Other social investments include medical, fresh water supply, education, agricultural and regional infrastructure investments in power, roads and border crossings.

#### **4.4.1.5.13 Reference Reports**

Further information on the Tenke Fungurume mine can be obtained by referencing the following technical report filed on SEDAR:

1. Technical Report for the Tenke Fungurume mine dated March 31, 2011 prepared by John Nilsson, P.Eng, of Nilsson Mine Services Ltd. and Ronald G. Simpson, P.Geo, of GeoSim Services Inc.
2. Technical Report for the Tenke Fungurume mine dated December 15, 2011 prepared by John Nilsson, P.Eng, of Nilsson Mine Services Ltd., Ronald G. Simpson, P.Geo, of GeoSim Services Inc. and William McKenzie, P.Eng, of Global Project Management Corporation.

### **4.4.2 MINE CLOSURES**

Lundin Mining acquired the Vueltas del Rio mine in Honduras, as part of the acquisition of Rio Narcea in 2007. Reclamation of the property is ongoing.

Production ceased in 2008 at the Storliden zinc-copper mine in northern Sweden. A rehabilitation programme has been completed in accordance with the approved closure plan and the site is now subject to a long-term monitoring program.

## **ITEM 5 RISKS AND UNCERTAINTIES**

### **5.1 Risks and Uncertainties**

The Company is subject to various risks and uncertainties, including but not limited to those listed below.

#### ***Metal Prices***

Metal prices, primarily copper, zinc and lead are key performance drivers and fluctuations in the prices of these commodities can have a dramatic effect on the results of operations. Prices fluctuate widely and are affected by numerous factors beyond the Company's control. The prices of metals are influenced by supply and demand, exchange rates, inflation rates, changes in global economies, and political, social and other factors. The supply of metals consists of a combination of new mine production and existing stocks held by governments, producers and consumers.

If the market prices for metals fall below the Company's full production costs and remain at such levels for any sustained period of time, the Company may, depending on hedging practices, experience losses and may determine to discontinue mining operations or development of a project at one or more of its properties. If the prices drop significantly, the economic prospects of the mines and projects in which the Company has an interest could be significantly reduced or rendered uneconomic. Low metal prices will affect the Company's liquidity, and if they persist for an extended period of time, the Company may have to look for other sources of cash flow to maintain liquidity until metal prices recover.

#### ***Credit Risk***

The Company is exposed to various counterparty risks. The Company is subject to credit risk through its trade receivables. The Company manages this risk through evaluation and monitoring process such as using the services of credit agencies. The Company transacts with credit worthy customers to minimize credit risk and if necessary, employs pre-payment arrangements and the use of letters of credit, where appropriate, but cannot always be assured of the solvency of its customers. Credit risk relating to derivative contracts arises from the possibility that a counterparty to an instrument with which the Company has an unrealized gain fails to settle the contracts.

#### ***Foreign Exchange Risk***

The Company's revenue from operations is received in United States dollars while most of its operating expenses will be incurred in Euro and SEK. Accordingly, foreign currency fluctuations may adversely affect the Company's financial position and operating results. The Company does not currently engage in foreign currency hedging activities.

#### ***Derivative Instruments***

The Company may, from time to time, manage exposure to fluctuations in metal prices and foreign exchange rates by entering into derivative instruments approved by the Company's board of directors. The Company does not hold or issue derivative instruments for speculation or trading purposes. These derivative instruments are marked-to-market at the end of each period and may not necessarily be indicative of the amounts the Company might pay or receive as the contracts are settled.

#### ***Reclamation Funds and Mine Closure Costs***

As at December 31, 2011, the Company had \$54.4 million in a number of reclamation funds that will be used to fund future site reclamation and mine closure costs at the Company's various mine sites. The Company will continue to contribute annually to these funds as required, based on an estimate of the future site reclamation and mine closure costs as detailed in the closure plans. Changes in environmental laws and regulations can create uncertainty with regards to future reclamation costs and affect the funding requirements.

The Company has received regulatory approval for closure at its Galmoy mine in 2011 and closure activities remain on schedule. Remnant high grade ore continues to be mined and is sent to an adjacent mine for processing. Mining activity is expected to conclude in the first half of 2012. Current mining activity does not have a significant effect on closure activities.

Rehabilitation programs were largely completed at the Storliden mine during 2010 following production shutdown in 2008. The site is subject to ongoing monitoring for several years following the completion of closure activities. The Company also has ongoing long-term monitoring programs in place associated with legacy mining operations previously carried on in Honduras under the ownership of a subsidiary of Rio Narcea Gold Mines Ltd., which was acquired by the Company in 2007.

Closing a mine can have significant impact on local communities and site remediation activities may not be supported by local stakeholders. The Company endeavors to mitigate this risk by reviewing and updating closure plans regularly with external stakeholders over the life of the mine and considering where post-mining land use for mining affected areas has potential benefits to the communities.

In addition to the immediate closure activities, including ground stabilization, infrastructure demolition and removal, top soil replacement, re-grading and re-vegetation, closed mining operations require long-term surveillance and monitoring.

Site closure plans have been developed and amounts accrued in the Company's financial statements to provide for mine closure obligations. Future remediation costs for inactive mines are estimated at the end of each period, including ongoing care, maintenance and monitoring costs. Changes in estimates at inactive mines are reflected in earnings in the period an estimate is revised. Actual costs realized in satisfaction of mine closure obligations may vary materially from management's estimates.

#### ***Competition***

There is competition within the mining industry for the discovery and acquisition of properties considered to have commercial potential. The Company competes with other mining companies, many of which have greater financial resources than the Company, for the acquisition of mineral claims, leases and other mineral interests as well as for the recruitment and retention of qualified employees and other personnel.

#### ***Foreign Countries and Regulatory Requirements***

The Company's operations in Portugal, Sweden, Ireland and Spain are subject to various laws and environmental regulations. The implementation of new or the modification of existing laws and regulations affecting the mining and metals industry could have a material adverse impact on the Company.

The Company has a significant investment in mining operations located in the DRC. The carrying value of this investment and the Company's ability to advance development plans may be adversely affected by political instability and legal and economic uncertainty. The risks by which the Company's interest in the DRC may be adversely affected include, but are not limited to, political unrest, labour disputes, invalidation of governmental orders, permits, agreements or property rights; risk of corruption including violations under U.S. and Canadian foreign corrupt practices statutes, military repression, war; civil disturbances, criminal and terrorist actions, arbitrary changes in laws, regulations, policies, taxation, price controls and exchange controls, delays in obtaining or the inability to obtain necessary permits, opposition to mining from environmental or other non-governmental organizations, limitations on foreign ownership, limitations on the repatriation of earnings, limitations on mineral exports, and high rates of inflation and increased financing costs. These risks may limit or disrupt the Company's projects, restrict the movement of funds or result in the deprivation of contractual rights, or the taking of property by nationalization, expropriation or other means without fair compensation. Africa's status as a developing continent may make it more difficult for the Company to obtain any required exploration, development and production financing for its projects.

There can be no assurance that industries which are deemed of national or strategic importance in countries in which the Company has operations or assets, including mineral exploration, production and development, will not be nationalized. The risk exists that further government limitations, restrictions or requirements, not presently foreseen, will be implemented. Changes in policy that alter laws regulating

the mining industry could have a material adverse effect on the Company. There can be no assurance that the Company's assets in these countries will not be subject to nationalization, requisition or confiscation, whether legitimate or not, by an authority or body.

In addition, in the event of a dispute arising from foreign operations, the Company may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada. The Company also may be hindered or prevented from enforcing its rights with respect to a governmental instrumentality because of the doctrine of sovereign immunity. It is not possible for the Company to accurately predict such developments or changes in laws or policy or to what extent any such developments or changes may have a material adverse effect on the Company's operations.

### ***Mining and Processing***

The Company's business operations are subject to risks and hazards inherent in the mining industry, including, but not limited to, unanticipated variations in grade and other geological problems, water conditions, surface or underground conditions, metallurgical and other processing problems, mechanical equipment performance problems, the lack of availability of materials and equipment, the occurrence of accidents, labour force disruptions, force majeure factors, unanticipated transportation costs, and weather conditions, any of which can materially and adversely affect, among other things, the development of properties, production quantities and rates, costs and expenditures and production commencement dates.

The Company's processing facilities are dependent upon continuous mine feed to remain in operation. Insofar as the Company's mines may not maintain material stockpiles of ore or material in process, any significant disruption in either mine feed or processing throughput, whether due to equipment failures, adverse weather conditions, supply interruptions, labour force disruptions or other causes, may have an immediate adverse effect on results of operations of the Company.

The Company periodically reviews mining schedules, production levels and asset lives in its LOM planning for all of its operating and development properties. Significant changes in the LOM Plans can occur as a result of experience obtained in the course of carrying out mining activities, new ore discoveries, changes in mining methods and rates, process changes, investments in new equipment and technology, metal price assumptions, and other factors. Based on this analysis, the Company reviews its accounting estimates and in the event of an impairment may be required to write-down the carrying value of a mine or mines. This complex process continues for the economic life of every mine in which the Company has an interest.

### ***Mine Development Risks***

The Company's ability to maintain, or increase, its annual production of copper, zinc, lead, nickel and other metals will be dependent in significant part on its ability to bring new mines into production and to expand existing mines. Although the Company utilizes the operating history of its existing mines to derive estimates of future operating costs and capital requirements, such estimates may differ materially from actual operating results at new mines or at expansions of existing mines. The economic feasibility analysis with respect to any individual project is based upon, among other things, the interpretation of geological data obtained from drill holes and other sampling techniques, feasibility studies (which derive estimates of cash operating costs based upon anticipated tonnage and grades of ore to be mined and processed), precious and base metals price assumptions, the configuration of the orebody, expected recovery rates of metals from the ore, comparable facility and equipment costs, anticipated climatic conditions, estimates of labour, productivity, royalty or other ownership requirements and other factors. Some of the Company's development projects are also subject to the successful completion of final feasibility studies, issuance of necessary permits and other governmental approvals and receipt of adequate financing. Although the Company's feasibility studies are generally completed with the Company's knowledge of the operating history of similar orebodies in the region, the actual operating results of its development projects may differ materially from those anticipated, and uncertainties related to operations are even greater in the case of development projects.

### ***Environmental and Other Regulatory Requirements***

All phases of mining and exploration operations are subject to government regulation including regulations pertaining to environmental protection. Environmental legislation is becoming stricter, with increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and heightened responsibility for companies and their directors, officers and employees. There can be no assurance that possible future changes in environmental regulation will not adversely affect the Company's operations. As well, environmental hazards may exist on a property in which the Company holds an interest, which were caused by previous or existing owners or operators of the properties and of which the Company is not aware at present. Operations at the Company's mines are subject to strict environmental and other regulatory requirements, including requirements relating to the production, handling and disposal of hazardous materials, pollution controls, health and safety and the protection of wildlife. The Company may be required to incur substantial capital expenditures in order to comply with these requirements. Any failure to comply with the requirements could result in substantial fines, delays in production, or the withdrawal of the Company's mining licenses.

Government approvals and permits are required to be maintained in connection with the Company's mining and exploration activities. With the exception of Aguablanca's water licenses (see Infrastructure), the Company has all the required permits for its operations as currently conducted; however, there is no assurance that delays will not occur in connection with obtaining all necessary renewals of such permits for the existing operations or additional permits for any possible future changes to the Company's operations, including any proposed capital improvement programs. Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions. Parties engaged in mining operations may be required to compensate those suffering loss or damage by reason of the mining activities and may be liable for civil or criminal fines or penalties imposed for violations of applicable laws or regulations. Amendments to current laws, regulations and permitting requirements, or more stringent application of existing laws, may have a material adverse impact on the Company resulting in increased capital expenditures or production costs, reduced levels of production at producing properties or abandonment or delays in development of properties.

### ***Mineral Resource and Reserve Estimates***

The Company's reported Mineral Resources and Mineral Reserves are only estimates. No assurance can be given that the estimated Mineral Resources and Mineral Reserves will be recovered or that they will be recovered at the rates estimated. Mineral Resource and Mineral Reserve estimates are based on limited sampling, and, consequently, are uncertain because the samples may not be representative. Mineral Resource and Mineral Reserve estimates may require revision (either up or down) based on actual production experience. Market fluctuations in the price of metals, as well as increased production costs or reduced recovery rates, may render certain Mineral Resources and Mineral Reserves uneconomic and may ultimately result in a restatement of estimated resources and/or reserves. Moreover, short-term operating factors relating to the Mineral Resources and Mineral Reserves, such as the need for sequential development of ore bodies and the processing of new or different ore grades or types, may adversely affect the Company's profitability in any particular accounting period.

### ***Estimation of Asset Carrying Values***

The Company annually undertakes a detailed review of the LOM Plans for its operating properties and an evaluation of the Company's portfolio of development projects, exploration projects and other assets. The recoverability of the Company's carrying values of its operating and development properties are assessed by comparing carrying values to estimated future net cash flows and/or market values for each property.

Factors which may affect the recoverability of carrying values include, but are not limited to, metal prices, capital cost estimates, mining, processing and other operating costs, grade and metallurgical characteristics of ore, mine design and timing of production. In the event of a prolonged period of depressed prices, the Company may be required to take material write-downs of its operating and development properties.

### ***Funding Requirements and Economic Volatility***

The Company does not have unlimited financial resources and there is no assurance that sufficient additional funding or financing will be available to the Company or its direct and indirect subsidiaries on acceptable terms, or at all, for further exploration or development of its properties or to fulfill its obligations under any applicable agreements. Failure to obtain such additional funding could result in the delay or indefinite postponement of the exploration and development of the Company's properties.

Lundin Mining is a multinational company and relies on financial institutions worldwide to fund its corporate and project needs. Instability of large financial institutions may impact the ability of the Company to obtain equity or debt financing in the future and, if obtained, on terms favourable to the Company. Disruptions in the capital and credit markets as a result of uncertainty, changing or increased regulation of financial institutions, reduced alternatives or failures of significant financial institutions could adversely affect the Company's access to the liquidity needed for the business in the longer term.

The Company's access to funds under its Revolving Credit Facility is dependent on the ability of the financial institutions that are parties to the facility to meet their funding commitments. Those financial institutions may not be able to meet their funding requirements if they experience shortages of capital and liquidity or if they experience excessive volumes of borrowing requests within a short period of time. Moreover, the obligations of the financial institutions under the Revolving Credit Facility are several and not joint and, as a result, a funding default by one or more institutions does not need to be made up by the others. Such disruptions could require the Company to take measures to conserve cash until the markets stabilize or until alternative credit arrangements or other funding for the Company's business needs can be arranged.

### ***Uninsurable Risks***

Exploration, development and production operations on mineral properties involve numerous risks, including unexpected or unusual geological operating conditions, rock bursts, cave-ins, fires, floods, earthquakes and other environmental occurrences, as well as political and social instability. It is not always possible to obtain insurance against all such risks and the Company may decide not to insure against certain risks because of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any further profitability and result in increasing costs and a decline in the value of the securities of the Company. The Company does not maintain insurance against political risks.

### ***No Assurance of Titles or Boundaries***

Although the Company has investigated the right to explore and exploit its various properties and obtained records from government offices with respect to all of the mineral claims comprising its properties, this should not be construed as a guarantee of title. Other parties may dispute the title to a property or the property may be subject to prior unregistered agreements and transfers or land claims by aboriginal, native, or indigenous peoples. The title may be affected by undetected encumbrances or defects or governmental actions. The Company has not conducted surveys of all of its properties, and the precise area and location of claims or the properties may be challenged.

### ***Partner in the Tenke Fungurume Mine***

The Company's partner in the Tenke Fungurume copper/cobalt project is Freeport-McMoRan Copper & Gold Inc. There may be risks associated with this partner of which the Company is not aware.

### ***Tax***

The Company runs its business in different countries and strives to run its business in as tax efficient a manner as possible. The tax systems in certain of these countries are complicated and subject to changes. By this reason, future negative effects on the result of the Company due to changes in tax regulations cannot be excluded. Repatriation of earnings to Canada from other countries may be subject to withholding taxes. The Company has no control over withholding tax rates.

### ***Employee Relations***

A prolonged labour disruption at any of the Company's mining operations could have a material adverse effect on the Company's ability to achieve its objectives with respect to such properties and its operations as a whole.

***Infrastructure***

Mining, processing, development and exploration activities depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges and power and water supplies are important determinants which affect capital and operating costs. Unusual or infrequent weather phenomena, sabotage or government, and other interference in the maintenance or provision of such infrastructure could adversely affect the activities and profitability of the Company.

During recent years, the water supply has been the object of political debate between the region in which Aguablanca operates and the neighbouring region. The Company is continuing to advance its application with central and regional authorities to obtain all of the water licences required to satisfy all of its supply requirements.

***Key Personnel***

The Company is dependent on a relatively small number of key employees, the loss of any of whom could have an adverse effect on the Company. The Company does not have key person insurance on these individuals.

**ITEM 6 DIVIDENDS AND DISTRIBUTIONS****6.1 Dividends and Distributions**

There are no restrictions which prevent the Company from paying dividends. The Company has not paid dividends on its common shares in the last five years and it has no present intentions of paying any dividends on its common shares, as it anticipates that all available funds will be invested to finance the growth of its business. The directors of the Company will determine if and when dividends should be declared and paid in the future, based on the Company's financial position at the relevant time.

**ITEM 7 DESCRIPTION OF CAPITAL STRUCTURE****7.1 General Description of Capital Structure**

The authorized share capital of the Company consists of an unlimited number of common shares without nominal or par value, and one special share without nominal or par value. The special share is not issued and outstanding at this time.

The holders of common shares are entitled to receive notice of and attend all meetings of shareholders with each common share held entitling the holder to one vote on any resolution to be passed at such shareholder meetings. The holders of Common Shares are entitled to dividends if, as and when declared by the board of directors of the Company. The common shares are entitled, upon liquidation, dissolution or winding up of the Company, to receive the remaining assets of the Company available for distribution to shareholders.

## **ITEM 8 MARKET FOR SECURITIES**

### **8.1 Exchange Listings**

The Common Shares of the Company are traded in Canada on the TSX under the symbol "LUN". In Sweden, the Common Shares are represented by Swedish Depository Receipts which trade on the O-list of the NASDAQ OMX Nordic Exchange under the symbol "LUMI".

### **8.2 Trading Price and Volume**

The following table provides information as to the monthly high and low closing prices of the Company's Common Shares during the 12 months of the most recently completed financial year, as well as the volume of shares traded for each month on the TSX:

<b>Month</b>	<b>High (C\$)</b>	<b>Low (C\$)</b>	<b>Volume</b>
January 2011	7.55	7.31	104,868,400
February 2011	7.35	7.13	101,105,000
March 2011	7.60	7.38	146,896,700
April 2011	8.19	8.00	166,894,200
May 2011	8.55	8.36	188,045,700
June 2011	6.91	6.68	107,878,900
July 2011	7.20	6.99	85,906,300
August 2011	5.65	5.29	170,229,900
September 2011	4.74	4.50	89,482,100
October 2011	4.18	3.94	145,174,000
November 2011	3.79	3.65	100,323,800
December 2011	4.01	3.87	73,150,700

## **ITEM 9 ESCROWED SECURITIES**

### **9.1 Escrowed Securities**

There are no Lundin Mining securities in escrow.

## **ITEM 10 DIRECTORS AND OFFICERS**

### **10.1 Name, Address, Occupation and Security Holding of Directors and Officers**

The Board of Directors of the Company is currently comprised of eight directors who are elected annually and whose term of office will expire at the Company's annual meeting scheduled to be held May 11, 2012. Each director holds office until the next annual meeting of shareholders or until his successor is duly elected unless his office is earlier vacated in accordance with the by-laws of the Company. The names, provinces and countries of residence of each of the directors and officers of the Corporation as at the date of this AIF, their respective positions and offices held with the Company, their principal occupations within the preceding five years and the number of securities of the Company owned by them as at the date of this AIF is set forth in the following table:

Name, residence and current position(s) held in the Company	Principal occupations for last five years	Served as director since	Number of securities owned (directly or indirectly) or controlled at present <sup>(1)</sup>
<b>Lukas H. Lundin</b> British Columbia, Canada <i>Chairman and Director</i>	Chairman and a director of the Company; chairman, president and/or director of a number of publicly traded resource-based companies which include Denison Mines Corp., Fortress Minerals Corp., Lucara Diamond Corp., Lundin Petroleum AB, NGEx Resources Inc., Sirocco Mining Inc. and Vostok Nafta Investment Ltd.	September 9, 1994	2,271,449 common shares
<b>Paul K. Conibear</b> British Columbia, Canada <i>President, Chief Executive Officer and Director</i>	President and Chief Executive Officer since June 30, 2011, Senior Vice President, Corporate Development since October 2009; Senior Vice President, Projects, of the Company from July 2007 to October 2009; President and Chief Executive Officer of Suramina Resources Inc. from June 11, 2007 to September 30, 2007; President and Chief Executive Officer of Tenke Mining Corporation from November 26, 2002 to July 13, 2007.	June 30, 2011	699,904 common shares <sup>(3)</sup>
<b>Colin K. Benner</b> British Columbia, Canada <i>Director</i>	Interim President of Troon Ventures Ltd. and President of CKB Mining Inc. and a director of a number of publicly traded companies; Executive Chairman of Creston Moly Corp. from August 2009 to September 2011; Vice Chairman and Chief Executive Officer of Skye Resources Inc. from March to August 2008; Chairman of PBC Coals Inc. from August 2007 to October 2008; Vice Chairman and Chief Executive Officer of Lundin Mining Corporation from October 2006 to April 2007; Vice Chairman and Chief Executive Officer of EuroZinc Mining Corporation from December 2004 to October 2006 and prior to this President and Chief Executive Officer of Breakwater Resources Ltd.	October 31, 2006	40,000 common shares
<b>Donald K. Charter</b> Ontario, Canada <i>Director</i>	President and CEO, and director of Corsa Coal Corp. since August 2010; since January 2006, he has been the President of 3Cs Corporation, his private consulting and investment company, and a director sitting on a number of public company boards.	October 31, 2006	21,424 common shares
<b>John H. Craig</b> Ontario, Canada <i>Director</i>	Lawyer, partner of Cassels Brock & Blackwell LLP.	June 11, 2003	213,849 common shares

Name, residence and current position(s) held in the Company	Principal occupations for last five years	Served as director since	Number of securities owned (directly or indirectly) or controlled at present <sup>(1)</sup>
<b>Brian D. Edgar</b> British Columbia, Canada <i>Director</i>	Chairman of Silver Bull Resources, Inc.; director of a number of publicly traded companies.	September 9, 1994	230,000 common shares
<b>Dale C. Peniuk C.A.</b> British Columbia, Canada <i>Director</i>	Chartered Accountant; financial consultant to the mining industry; formerly an assurance partner with KPMG LLP, Chartered Accountants; director of a number of publicly traded companies.	October 31, 2006	17,600 common shares <sup>(2)</sup>
<b>William A. Rand</b> British Columbia, Canada <i>(Lead) Director</i>	President and director of Rand Edgar Investment Corp.; director of a number of publicly traded companies.	September 9, 1994	223,424 common shares
<b>João Carrêlo</b> United Kingdom <i>Executive Vice President and Chief Operating Officer</i>	Executive Vice President and Chief Operating Officer of the Company since April 2007; Chief Operating Officer of the Company in Iberia from October 2006 to March 2007. Chief Operating Officer for EuroZinc from June 2005 to October 2006.	N/A	10,000 common shares
<b>James A. Ingram</b> Ontario, Canada <i>Corporate Secretary</i>	Corporate Secretary of the Corporation since February 2010; Vice President, Secretary and General Counsel with Hudson's Bay Company from March 1998 to July 2009.	N/A	Nil
<b>Marie Inkster</b> Ontario, Canada <i>Chief Financial Officer</i>	Chief Financial Officer of the Company since May 2009; Vice President, Finance of the Company from September 2008 to April 30, 2009; Vice President, Finance, GBS Gold International Inc. from September 2007 to June 2008; LionOre Mining International Ltd., last position held being that of Vice President/Controller from 2002 to 2007.	N/A	30,200
<b>Julie Lee Harris</b> Ontario, Canada <i>Senior Vice President, Corporate Development</i>	Senior Vice President, Corporate Development since November 2011; President and Chief Operating Officer, Energizer Resources Inc. from September 2009 to September 2011, Senior Vice President, General Counsel and Secretary, Sherritt International Corp. from May 2006 to October 2008.	N/A	Nil
<b>Jinhee Magie</b> Ontario, Canada <i>Vice President, Finance</i>	Vice President, Finance of the Company since May 2009; Director of Finance of the Company from September 2008 to April 2009; formerly, Director of Corporate Compliance, LionOre Mining International Ltd.	N/A	5,000 common shares

<b>Name, residence and current position(s) held in the Company</b>	<b>Principal occupations for last five years</b>	<b>Served as director since</b>	<b>Number of securities owned (directly or indirectly) or controlled at present <sup>(1)</sup></b>
<b>Paul McRae</b> United Kingdom Senior Vice President, Projects	Senior Vice President, Projects of the Company since January 2012; Project Director, AMEC from June 2009 to December 2011; Project Director of the Company from February 2008 to May 2009; Project Director, AMEC from August 2003 to January 2008.	N/A	Nil
<b>Peter Nicoll</b> Ontario, Canada <i>Vice President Health, Safety, Environment and Community</i>	Vice President, Health, Safety, Environment and Community of the Company since July 2008; Vice President, Safety, Health, Environment and Corporate Social Responsibility of Uranium One from August 2007 to June 2008; Director, Office of Environmental Health and Safety, University of Toronto, February 2006 to August 2007.	N/A	Nil
<b>Neil O'Brien</b> Ontario, Canada <i>Senior Vice President, Exploration and Business Development</i>	Senior Vice President, Exploration and New Business Development of the Company since March, 2007; Vice President, Exploration of the Company from September 2005 to February 2007.	N/A	62,000 common shares
<b>Mikael Schauman</b> Sweden <i>Vice President, Marketing</i>	Vice President, Marketing of the Company since February 2007; formerly Senior Non-Ferrous Concentrates Trader at Mitsui & Co. Metals (USA), Inc.	N/A	Nil

<sup>(1)</sup> On a non-diluted basis. The information as to common shares beneficially owned has been provided by the directors and officers themselves.

<sup>(2)</sup> Includes 15,000 common shares registered in the name of Mr. Peniuk's spouse and 100 common shares registered in the name of Mr. Peniuk's child.

<sup>(3)</sup> Includes 80,850 common shares registered in the name of Mr. Conibear's spouse.

Certain directors of the Company have other business interests and do not devote all of their time to the affairs of the Company. See "Conflicts of Interest" below.

The directors and officers of the Company hold, as a group, a total of 3,842,850 common shares, representing 0.6% of the number of common shares of the Company issued and outstanding as at the date hereof.

There are currently four standing committees of the board. These committees are the Audit Committee, the Corporate Governance and Nominating Committee, the Health, Safety, Environment and Community Committee and the Human Resources/Compensation Committee. The following table identifies the members of each of these Committees:

Audit Committee	Human Resources and Compensation Committee	Corporate Governance and Nominating Committee	Health, Safety, Environment and Community Committee
Dale C. Peniuk (Chair) Donald K. Charter William A. Rand	Donald K. Charter (Chair) Dale C. Peniuk William A. Rand	Brian D. Edgar (Chair) John H. Craig Dale C. Peniuk	Colin K. Benner (Chair) Paul K. Conibear Brian D. Edgar

## 10.2 Corporate Cease Trade Orders or Bankruptcies

Except as noted below, no director or executive officer of the Company is, as at the date of this AIF, or was within 10 years before the date of this AIF, a director, chief executive officer or chief financial officer of any company (including Lundin Mining), that:

- (a) was subject to: (i) a cease trade order; (ii) an order similar to a cease trade order; or (iii) an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days (collectively, an "order") that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer, or
- (b) was subject to an order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

Mr. Edgar and Mr. Rand were directors of New West Energy Services Inc. (formerly Lexacal Investment Corp.) (TSX-V) when, on September 5, 2006, a cease trade order was issued against that company by the British Columbia Securities Commission for failure to file its financial statements within the prescribed time. The default was rectified and the order was rescinded on November 9, 2006.

Except as noted below, no director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company:

- a) is, as at the date of this AIF, or has been within the 10 years before the date of this AIF, a director or executive officer of any company (including Lundin Mining) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets, state the fact; or
- b) has, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

Mr. Benner was a director of Tahera Diamond Corporation ("Tahera") which, on January 16, 2008, was granted creditor protection by the Ontario Superior Court of Justice under the Companies' Creditor Arrangement Act ("CCAA"). Mr. Benner resigned as a director of Tahera on September 29, 2008. Pursuant to a number of extensions, Tahera remained under CCAA protection and was sold to a third party.

Ms. Inkster was Vice President, Finance of GBS Gold International Inc. ("GBS") from September 2007 to June 2008. On September 15, 2008, GBS put its Australian group of subsidiaries into voluntary liquidation proceedings. In March 2009, GBS announced that it had agreed to transfer its remaining valued assets to the secured promissory noteholders pursuant to the terms of a note indenture and

general security deed entered into on May 27, 2008. The shares of GBS have been suspended from trading on the NEX board and it has effectively ceased business.

The foregoing information, not being within the knowledge of the Company, has been furnished by the respective directors, officers and any controlling shareholder of the Company individually.

### **10.3 Penalties or Sanctions**

No director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company, has been subject to:

- a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

### **10.4 Conflicts of Interest**

The Company's directors and officers may serve as directors or officers of other companies or have significant shareholdings in other resource companies and, to the extent that such other companies may participate in ventures in which the Company may participate, the directors of the Company may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. In the event that such a conflict of interest arises at a meeting of the Company's directors, a director who has such a conflict will abstain from voting for or against the approval of such participation or the terms of such participation. From time to time, several companies may participate in the acquisition, exploration and development of natural resource properties, thereby allowing for their participation in larger programs, the involvement in a greater number of programs or a reduction in financial exposure in respect of any one program. It may also occur that a particular company will assign all or a portion of its interest in a particular program to another of these companies due to the financial position of the company making the assignment. In accordance with the laws of Canada, the directors or the Company are required to act honestly, in good faith and in the best interests of the Company. In determining whether or not the Company will participate in a particular program and the interest therein to be acquired by it, the directors will primarily consider the degree of risk to which the Company may be exposed and the financial position at that time.

The directors and officers of the Company are aware of the existence of laws governing the accountability of directors and officers for corporate opportunity and requiring disclosure by the directors of conflicts of interest and the Company will rely upon such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of its directors and officers. All such conflicts will be disclosed by such directors or officers in accordance with the *Canada Business Corporations Act* and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law. Other than as disclosed above, the directors and officers of the Company are not aware of any such conflicts of interest in any existing or contemplated contracts with or transactions involving the Company.

## ITEM 11 AUDIT COMMITTEE

### 11.1 Overview

The Audit Committee of the Company's board of directors is principally responsible for recommending to the Company's board of directors the external auditor to be nominated for election by the Company's shareholders at each annual general meeting and approving the compensation of such external auditor, overseeing the work of the external auditor, reviewing the Company's annual and interim financial statements, MD&A and press releases regarding earnings before they are reviewed and approved by the board of directors and publicly disseminated by the Company, and reviewing the Company's financial reporting procedures with respect to the public disclosure of financial information extracted or derived from its financial statements.

### 11.2 Audit Committee Mandate/Charter

The Company's Board of Directors has adopted an audit committee mandate (the "Mandate") which sets out the audit committee's purpose, procedures, organization, powers, roles and responsibilities. The complete Mandate is attached as Schedule B to this AIF.

### 11.3 Composition of the Audit Committee

Below are the details of each audit committee member, including his name, whether he is independent and financially literate as such terms are defined under National Instrument 52-110 and his education and experience as it relates to the performance of his duties as an audit committee member. The qualifications and independence of each member is discussed below and in the Company's Management Information Circular, dated May 19, 2011, prepared in connection with the Company's annual meeting of shareholders held on June 24, 2011, a copy of which is available under the Company's profile on the SEDAR website at [www.sedar.com](http://www.sedar.com).

Member Name	Independent <sup>(1)</sup>	Financially Literate <sup>(2)</sup>	Education and Experience Relevant to Performance of Audit Committee Duties
Dale C. Peniuk (Chair)	Yes	Yes	Mr. Peniuk is a chartered accountant and a graduate of the University of British Columbia (B.Comm). Mr. Peniuk was an assurance partner with KPMG LLP Canada from 1996 to 2006 and was the leader of their British Columbia mining practice. In addition to Lundin Mining, he is presently a director and audit committee Chair of Argonaut Gold Inc., Capstone Mining Corp., Rainy River Resources Ltd., and Sprott Resource Lending Corp.
Donald K. Charter	Yes	Yes	Mr. Charter has both an Honours B.A. in economics and an LLB, both from McGill University. Mr. Charter has attained financial experience and exposure to accounting and financial issues in his current role as a director of several publicly traded Canadian companies, and in his previous roles as Chairman and Chief Executive Officer of Dundee Securities Corporation and as Executive Vice President of Dundee Corporation and Dundee Wealth Management.
William A. Rand	Yes	Yes	Mr. Rand is a retired corporate and securities lawyer and mining executive with a B.Comm. from McGill University (Honours in Economics and Major in Accounting), who has been a member of a number of boards and audit committees of public companies for over 30 years. Through this education and experience, Mr. Rand has experience overseeing and assessing the performance of companies and public accountants with respect to the preparation, auditing and evaluation of financial statements.

- (1) A member of an audit committee is independent if the member has no direct or indirect material relationship with the Company which could, in the view of the board of directors, reasonably interfere with the exercise of a member's independent judgment, or is otherwise deemed to have a material relationship pursuant to NI 52-110.
- (2) An individual is financially literate if he has the ability to read and understand a set of financial statements that present a breadth of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues and can reasonably be expected to be raised by the Company's financial statements.

#### **11.4 Audit Committee Oversight**

Since the commencement of the Company's most recently completed financial year, there has not been a recommendation of the Audit Committee to nominate or compensate an external auditor which was not adopted by the Company's Board.

#### **11.5 Pre-Approval Policies and Procedures**

All audit and non-audit services performed by the external auditor are pre-approved by the Audit Committee.

#### **11.6 External Auditor Service Fees (By Category)**

The following table discloses the fees billed to the Company by its external auditors during the financial year ended December 31, 2011. Services billed in C\$, SEK or € were translated using average exchange rates that prevailed during 2011.

Fiscal Year Ending	Audit Fees <sup>(1)</sup>	Audit-Related Fees <sup>(2)</sup>	Tax Fees <sup>(3)</sup>	All other Fees <sup>(4)</sup>
December 31, 2011	\$714,375	\$106,548	\$39,890	\$598,760
December 31, 2010	\$952,663	\$91,545	\$22,961	\$35,056

- (1) Audit fees represent the aggregate fees billed by the Company's auditors for audit services.
- (2) Audit-related fees represent the aggregate fees billed for assurance and related services by the Company's auditors that are reasonably related to the performance of the audit or review of the Company's financial statements and not disclosed in the Audit Fees column.
- (3) Tax fees represent the aggregate fees billed for professional services rendered by the Company's external auditor for tax compliance, tax advice and tax planning.
- (4) All other fees represent the aggregate of fees billed for products and services provided by the Company's auditors other than services reported under clauses (1), (2) and (3) above.

PricewaterhouseCoopers LLP, Chartered Accountants, have prepared the Independent Auditors' Report dated February 22, 2012 in respect of the Company's consolidated financial statements as at December 31, 2011, December 31, 2010 and January 1, 2010 and for the years ended December 31, 2011 and 2010. PricewaterhouseCoopers LLP have advised the Company that they are independent in accordance with the rules of professional conduct of the Institute of Chartered Accountants of Ontario.

## **ITEM 12            LEGAL PROCEEDINGS AND REGULATORY ACTIONS**

### **12.1    Legal Proceedings**

The Company is not currently a party to any material legal proceedings; however, from time to time, the Company may become party to routine litigation incidental to Lundin Mining's business.

### **12.2    Regulatory Actions**

No penalties or sanctions were imposed by a court relating to securities legislation or by a securities regulatory authority during the Company's recently completed financial year, nor were there any other penalties or sanctions imposed by a court or regulatory body against the Company that would likely be considered important to a reasonable investor in making an investment decision, nor were any settlement agreements entered into before a court relating to securities legislation or with a securities regulatory authority during the Company's recently completed financial year.

## **ITEM 13            INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

### **13.1    Interest of Management and Others in Material Transactions**

To the best of the Company's knowledge, none of the directors, officers or principal shareholders of the Company, and no associate or affiliate of any of them, has or has had any material interest in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or will materially affect the Company other than the agreement entered into between the Company and HudBay dated November 21, 2008 which was terminated pursuant to a Termination Agreement between the Company and HudBay dated February 23, 2009. In this connection, Messrs. Colin K. Benner and Donald K. Charter, both of whom are directors of the Company, were also directors of HudBay. Mr. Benner formerly served as Chief Executive Officer of the Company from October 2006 to March 2007 and as the Chief Executive Officer of Skye Resources Inc. prior to its acquisition by HudBay in August 2008 and as interim CEO of HudBay from March 9, 2009 to March 23, 2009. Mr. Benner also served as Vice Chairman of the Company from October 2006 to January 2008. Mr. John H. Craig, a director of the Company, is a partner of Cassels Brock & Blackwell, LLP, Canadian legal advisor to HudBay in connection with the Arrangement.

## **ITEM 14            TRANSFER AGENTS AND REGISTRARS**

### **14.1    Transfer Agents and Registers**

The transfer agent and registrar for the common shares of the Company is Computershare Investor Services Inc. at its principal offices in Vancouver, British Columbia and Toronto, Ontario.

## **ITEM 15            MATERIAL CONTRACTS**

### **15.1    Material Contracts**

There were no other contracts, other than those entered into in the ordinary course of business, that were material to the Company and that were entered into between January 1, 2011 and up to the date of this AIF or that were entered into prior to January 1, 2002 and remain in effect during 2011, other than as follows:

- (a) Credit Agreement dated May 28, 2007, First Amending Agreement and Second Amending Agreement and Waiver dated May 15, 2008 and March 6, 2009, respectively, and the Third Amending Agreement dated July 6, 2009 between the Company and the Bank of Nova Scotia et al, pursuant to which the Company secured a five-year \$225 million non-revolving and a \$575 million revolving credit facility for general corporate purposes collateralized by shares owned by the Company in its subsidiaries. These loan facilities were used in part to acquire 100% of the issued and outstanding shares of Rio Narcea Gold Mines, Ltd. ("Rio Narcea").

Following the purchase of Rio Narcea, the Company sold its Tasiast gold project for \$225 million and retired the non-revolving credit facility.

(b) Amended and Restated Credit Agreement dated September 1, 2010 between the Company and the banking syndicate comprising Bank of Nova Scotia, Bank of Montreal, WestLB AG, ING Bank N.V., Export Development Canada and Skandinaviska Enskilda Banken AB, to increase the amount of the revolving credit facility from \$225 million to \$300 million. The restated agreement is for a full three- year term to September 2013, with reduced borrowing costs.

## **ITEM 16 INTERESTS OF EXPERTS**

### **16.1 Interests of Experts**

The Qualified Persons as defined by NI 43-101 who have supervised the preparation of the Company's Mineral Reserve and Mineral Resource estimates during 2011 or authored portions of the technical reports disclosed in this AIF are as follows:

- Messrs. John Nilsson, P.Eng., Nilsson Mine Services Ltd., and Ronald G. Simpson, P.Geo, GeoSim Services Inc. in respect of the Tenke Fungurume Mineral Resource and Mineral Reserve estimate;
- Messrs. John Nilsson, P.Eng., Nilsson Mine Services Ltd., Ronald G. Simpson, P.Geo, GeoSim Services Inc. and William McKenzie, P.Eng. Global Project Management Corporation in respect of the Tenke Fungurume technical report.
- Messrs. Graham Greenway, Corporate Resource Geologist, and Stephen Gatley, Director Technical Services, both employees of Lundin Mining, in respect of the Neves-Corvo Mineral Resource and Mineral Reserve estimate;
- Mr Graham Greenway, Corporate Resource Geologist, Lundin Mining, in respect of the Sembla Mineral Resource estimate.
- Mr. Neil Burns and Messrs. Mark Owen and Owen Mihalop of Wardell Armstrong International Ltd., in respect of the Neves-Corvo technical reports;
- Messrs. Graham Greenway, Corporate Resource Geologist, and Stephen Gatley, Director Technical Services, both employees of Lundin Mining, in respect of the Zinkgruvan Mineral Resource and Mineral Reserve estimate;
- Messrs. Per Hedström, Doug Syme and Lars Malmström, Resource Manager, an employee of Zinkgruvan Mining AB, in respect of the Zinkgruvan technical report;
- Messrs. Graham Greenway, Corporate Resource Geologist, and Stephen Gatley, Director Technical Services, both employees of Lundin Mining, in respect of the Aguablanca Mineral Resource and Mineral Reserve estimate;
- Messrs. Juan Alvarez, Sia Khosrowshahi and Juan Pablo Gonzalez of Golder Associates Global Iberica, S.L.U., and Mr. Stephen Gatley, an employee of Lundin Mining (author of the section entitled "Additional Requirements for Development and Production Properties") in respect of the Aguablanca technical report.; and
- Mr. Paul McDermott, Technical Services Superintendent, an employee of Galmoy mine, in respect of the Galmoy Mineral Resource and Mineral Reserve.

The above noted qualified persons have reviewed and approved the summaries of the properties for which they have been involved and approve the related scientific and technical disclosure in this AIF, including the Mineral Reserve Table included in Schedule A.

PricewaterhouseCoopers LLP, Chartered Accountants, have prepared the Independent Auditors' Report dated February 22, 2012 in respect of the Company's consolidated financial statements as at December 31, 2011, December 31, 2010 and January 1, 2010 and for the years ended December 31, 2011 and

2010. PricewaterhouseCoopers LLP have advised the Company that they are independent in accordance with the rules of professional conduct of the Institute of Chartered Accountants of Ontario.

No person or company named or referred to under this Item beneficially owns, directly or indirectly, 1% or more of any class of the Corporation's outstanding securities.

## **ITEM 17 ADDITIONAL INFORMATION**

### **17.1 Additional Information**

Additional information regarding the Company is available on SEDAR website at [www.sedar.com](http://www.sedar.com). Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, if any, and securities authorized for issuance under equity compensation plans is contained in the Company's Management Information Circular dated May 19, 2011 prepared in connection with the annual meeting of shareholders of the Company held on June 24, 2011. Additional financial information is provided in the consolidated financial statements of the Company as at December 31, 2011, December 31, 2010 and January 1, 2010, and for the years ended December 31, 2011 and 2010, together with auditors' report thereon and the notes thereto, and MD&A for the year ended December 31, 2011.

# RESOURCE AND RESERVE ESTIMATE – 2011

## SCHEDULE A

### Mineral Reserves

Category	000's Tonnes	Contained Metal 000's (Ounces millions)												
		Cu %	Zn %	Pb %	Ag g/t	Ni %	Co %	Cu T	Zn T	Pb T	Ag Oz	Ni T	Co T	Lundin Interest
<b>Copper</b>														
<b>Neves-Corvo</b>	Proven	23,235	3.2	1.0	0.3	44		737	230	75	33			100%
	Probable	4,508	2.3	0.5	0.4	45		105	25	17	7			100%
	<b>Total</b>	<b>27,744</b>	<b>3.0</b>	<b>0.9</b>	<b>0.3</b>	<b>44</b>		<b>842</b>	<b>254</b>	<b>92</b>	<b>39</b>			<b>100%</b>
<b>Zinkgruvan</b>	Proven	2,768	2.6	0.4		32		72	11		3			100%
	Probable	78	2.4	0.4		29		2	-		-			100%
	<b>Total</b>	<b>2,846</b>	<b>2.6</b>	<b>0.4</b>		<b>32</b>		<b>74</b>	<b>11</b>		<b>3</b>			<b>100%</b>
<b>Tenke</b>	Proven	54,142	3.3			0.4		1,763				193	24%	
<b>Fungurume</b>	Stockpiles	14,480	1.1			0.4		160				58	24%	
	Probable	87,038	2.8			0.3		2,471				257	24%	
	<b>Total</b>	<b>155,660</b>	<b>2.8</b>			<b>0.3</b>		<b>4,393</b>				<b>509</b>	<b>24%</b>	
<b>Zinc</b>														
<b>Neves-Corvo</b>	Proven	19,361	0.4	7.1	1.6	67		70	1,380	316	42			100%
	Probable	3,769	0.4	8.0	2.1	64		14	301	80	8			100%
	<b>Total</b>	<b>23,130</b>	<b>0.4</b>	<b>7.3</b>	<b>1.7</b>	<b>66</b>		<b>84</b>	<b>1,680</b>	<b>396</b>	<b>49</b>			<b>100%</b>
<b>Zinkgruvan</b>	Proven	8,212		9.3	4.8	103		764	394	27				100%
	Probable	2,442		9.0	2.9	60		220	71	5				100%
	<b>Total</b>	<b>10,654</b>		<b>9.2</b>	<b>4.4</b>	<b>93</b>		<b>983</b>	<b>465</b>	<b>32</b>				<b>100%</b>
<b>Galmoy</b>	Proven	201		16.5	6.2	56		33	12	0				100%
	Probable	3		11.0	1.2	10		-	-	-				100%
	<b>Total</b>	<b>204</b>		<b>16.4</b>	<b>6.1</b>	<b>55</b>		<b>33</b>	<b>12</b>	<b>0</b>				<b>100%</b>
<b>Nickel</b>														
<b>Aguablanca</b>	Proven	6,214	0.4			0.6		25				37	100%	
	Probable	332	0.2			0.3		1				1	100%	
	<b>Total</b>	<b>6,546</b>	<b>0.4</b>			<b>0.6</b>		<b>26</b>				<b>38</b>	<b>100%</b>	
Note: totals may not summate correctly due to rounding								Lundin's share						
								<b>2,080</b>	<b>2,963</b>	<b>966</b>	<b>124</b>	<b>38</b>	<b>122</b>	

### Mineral Resources - inclusive of reserves

Category	000's Tonnes	Contained Metal 000's (Ounces millions)												
		Cu %	Zn %	Pb %	Ag g/t	Ni %	Co %	Cu T	Zn T	Pb T	Ag Oz	Ni T	Co T	Lundin Interest
<b>Copper</b>														
<b>Neves-Corvo</b>	Measured	37,621	3.2	1.2	0.4	49		1,193	451	147	59			100%
	Indicated	7,688	2.3	0.9	0.5	49		175	68	36	12			100%
	Inferrered	28,490	1.8	0.9	0.4	40		524	259	100	37			100%
<b>Semblana</b>	Inferrered	6,578	3.0	0.6	0.2	24		194	40	11	5			100%
<b>Zinkgruvan</b>	Measured	5,304	2.2	0.5		29		117	27		5			100%
	Indicated	172	2.5	0.3		35		4	1		-			100%
	Inferrered	772	2.2	0.2		36		17	2		1			100%
<b>Tenke</b>	Measured	117,974	3.0			0.3		3,496				370	24%	
<b>Fungurume</b>	Indicated	378,457	2.5			0.2		9,393				927	24%	
	Inferrered	246,599	2.0			0.2		4,809				594	24%	
<b>Zinc</b>														
<b>Neves-Corvo</b>	Measured	61,252	0.4	6.1	1.4	59		221	3,724	833	117			100%
	Indicated	18,094	0.4	6.5	1.7	53		63	1,172	300	31			100%
	Inferrered	32,985	0.4	4.9	1.2	55		119	1,610	386	58			100%
<b>Zinkgruvan</b>	Measured	8,464		11.0	5.5	119		931	466	32				100%
	Indicated	5,494		10.4	4.6	93		571	253	16				100%
	Inferrered	5,572		9.6	3.2	69		535	178	12				100%
<b>Galmoy</b>	Measured	689		15.6	3.1	26		107	21	1				100%
	Indicated	131		10.5	0.8	7		14	1	-				100%
	Inferrered	7		9.2	0.4	8		1	-	-				100%
<b>Nickel</b>														
<b>Aguablanca</b>	Measured	11,320	0.5			0.6		55				65	100%	
	Indicated	1,210	0.2			0.3		2				4	100%	
	Inferrered	442	0.1			0.3		1				1	100%	
	Lundin's share not including Inferrered Resources							<b>4,923</b>	<b>7,066</b>	<b>2,057</b>	<b>273</b>	<b>69</b>	<b>311</b>	

## **Notes on Mineral Reserves and Resources Table**

Mineral Reserves and Resources are shown on a 100 percent basis for each mine. Mineral Resources for all operations are inclusive of Mineral Reserves and all estimates, with the exception of Tenke Fungurume, are prepared as at June 30, 2011. The Tenke Fungurume estimate is dated December 31, 2011.

Estimates for all 100% owned operations are prepared by or under the supervision of a Qualified Person as defined in National Instrument 43-101. The Tenke Fungurume Mineral Resources and Mineral Reserves are estimated by the operator Freeport-McMoRan Copper & Gold Inc. ("Freeport"). The Mineral Reserves are prepared to SEC standards while the Mineral Resources shown in the text and the table are not reported under United States SEC guidelines, but are reported under the National Instrument 43-101 Canadian guidelines. The estimate methodology was reviewed by Lundin Mining's independent Qualified Persons.

Except as noted below, Mineral Reserves have been calculated using assumed long-term average prices of US\$2.50/lb copper, US\$1.00/lb zinc, US\$0.90/lb lead, US\$8.50/lb nickel and exchange rates of EUR/USD 1.35 and USD/SEK 7.50. Mineral Reserves at Tenke Fungurume have been calculated using assumed long-term average prices of US\$2.00/lb copper and US\$10.00/lb cobalt.

### **Neves-Corvo**

The Mineral Resources are reported above cut-off grades of 1.0% for copper and 3.0% for zinc. The copper Mineral Reserves are reported above a cut-off of 1.4% while for zinc Mineral Reserves a cut-off of 5.0% is used for orebodies other than Lombador. For the Lombador Phase 1 a zinc cut-off of 6.0% was applied for Mineral Reserve reporting. Mineral Reserves and Resources for Neves-Corvo were estimated by the mine's geology and mine engineering departments under the guidance of Nelson Pacheco, Chief Geologist and Fernando Cartaxo, Chief Mine Planning Engineer. Qualified Persons are Graham Greenway, Group Resource Geologist and Stephen Gatley, Director Technical Services, both employed by Lundin Mining.

### **Semblana**

The Mineral Resource is reported above a cut-off grade of 1.0% copper. The Mineral Resource estimate for Semblana was prepared by Graham Greenway who is also the Qualified Person for the project.

### **Zinkgruvan**

The zinc Mineral Resources and Reserves are reported above a 3.7% zinc equivalent cut-off. The Copper Mineral Resources and Reserves are reported above cut-off grades of 1.0% copper and 1.8% copper respectively. The Zinkgruvan Mineral Resource and Reserve estimates are prepared by the mine's geology and mine engineering department under the guidance of Lars Malmström, Resource Manager, employed by Zinkgruvan mine. Qualified Persons are Graham Greenway and Stephen Gatley.

### **Aguablanca**

The Mineral Resources and Reserves are reported above a 0.18% nickel cut off. Mineral Resources and Reserves for Aguablanca were estimated by the mine's geology and mine engineering departments under the guidance of César Martínez and Jorge Llidó. Qualified Persons are Graham Greenway and Stephen Gatley.

### **Galmoy**

The Mineral Resources are reported above a cut-off of 4.5% zinc equivalent. The Mineral Reserves are those tonnes above a 6.0% zinc equivalent cut off that are amenable to mining and treatment at an adjacent mine. The Qualified Person responsible for the Galmoy Mineral Resource and Reserve estimate is Paul McDermott, Technical Services Superintendent, an employee of Galmoy mine.

### **Tenke Fungurume**

Lundin Mining holds an effective 24.0% interest in the Tenke Fungurume copper and cobalt concessions in the DRC and figures in this Schedule utilize 24.0% for Lundin Mining attributable metal quantities.

The Mineral Resources are an estimate of what is mineralized material in the ground based on a cut-off of 1.30% copper equivalent and a cobalt to copper factor of 4.00 without assigning economic probability. The 2011 Mineral Reserves are based on smoothed pit designs for measured and indicated resources. Mineral Resources are inclusive of Mineral Reserves with the exception of the stockpile material. The Mineral Resource (not reported under United States SEC guidelines) and Reserve estimates (reported under United States SEC guidelines) for Tenke have been prepared by Freeport staff and reviewed by independent consultants and Qualified Persons John Nilsson, P.Eng. of Nilsson Mine Services Ltd and Ron Simpson P.Geo. of GeoSim Services Inc., on behalf of Lundin Mining.

**A. PURPOSE**

The overall purpose of the Audit Committee (the "Committee") is to ensure that the Corporation's management has designed and implemented an effective system of internal financial controls, to review and report on the integrity of the consolidated financial statements of the Corporation and to review the Corporation's compliance with regulatory and statutory requirements as they relate to financial statements, taxation matters and disclosure of material facts.

**B. COMPOSITION, PROCEDURES AND ORGANIZATION**

1. The Committee shall consist of at least three members of the Board of Directors (the "Board"), all of whom shall be "independent directors", as that term is defined in Multilateral Instrument 52-110, "Audit Committees".
2. All of the members of the Committee shall be "financially literate" (i.e. able to read and understand a set of financial statements that present a breadth and level of complexity of the issues that can reasonably be expected to be raised by the Corporation's financial statements).
3. At least one member of the Committee shall have accounting or related financial expertise (i.e. able to analyze and interpret a full set of financial statements, including the notes thereto, in accordance with generally accepted accounting principles).
4. The Board, at its organizational meeting held in conjunction with each annual general meeting of the shareholders, shall appoint the members of the Committee for the ensuing year. The Board may at any time remove or replace any member of the Committee and may fill any vacancy in the Committee.
5. Unless the Board shall have appointed a chair of the Committee or in the event of the absence of the chair, the members of the Committee shall elect a chair from among their number.
6. The secretary of the Committee shall be designated from time to time from one of the members of the Committee or, failing that, shall be the Corporation's Corporate Secretary, unless otherwise determined by the Committee.
7. The quorum for meetings shall be a majority of the members of the Committee, present in person or by telephone or other telecommunication device that permits all persons participating in the meeting to speak and to hear each other.
8. The Committee shall have access to such officers and employees of the Corporation and to the Corporation's external auditors, and to such information respecting the Corporation, as it considers to be necessary or advisable in order to perform its duties and responsibilities.
9. Meetings of the Committee shall be conducted as follows:
  - (a) the Committee shall meet at least four times annually at such times and at such locations as may be requested by the Chair of the Committee. The external auditors or any member of the Committee may request a meeting of the Committee;
  - (b) the external auditors shall receive notice of and have the right to attend all meetings of the Committee;
  - (c) the Chair of the Committee shall be responsible for developing and setting the agenda for Committee meetings and determining the time and place of such meetings;
  - (d) the following management representatives shall be invited to attend all meetings, except executive sessions and private sessions with the external auditors:
    - (i) Chief Executive Officer; and
    - (ii) Chief Financial Officer.

- (e) other management representatives shall be invited to attend as necessary; and
- (f) notice of the time and place of every meeting of the Committee shall be given in writing to each member of the Committee a reasonable time before the meeting.

10. The internal auditors and the external auditors shall have a direct line of communication to the Committee through its chair and may bypass management if deemed necessary. The Committee, through its Chair, may contact directly any employee in the Corporation as it deems necessary, and any employee may bring before the Committee any matter involving questionable, illegal or improper financial practices or transactions.

11. The Committee shall have authority to engage independent counsel and other advisors as it determines necessary to carry out its duties, to set and pay the compensation for any advisors employed by the Audit Committee and to communicate directly with the internal and external auditors.

## **C. ROLES AND RESPONSIBILITIES**

1. The overall duties and responsibilities of the Committee shall be as follows:
  - (a) to assist the Board in the discharge of its responsibilities relating to the Corporation's accounting principles, reporting practices and internal controls and its approval of the Corporation's annual and quarterly consolidated financial statements;
  - (b) to establish and maintain a direct line of communication with the Corporation's internal and external auditors and assess their performance;
  - (c) to ensure that the management of the Corporation has designed, implemented and is maintaining an effective system of internal financial controls; and
  - (d) to report regularly to the Board on the fulfilment of its duties and responsibilities.
2. The duties and responsibilities of the Committee as they relate to the external auditors shall be as follows:
  - (a) to recommend to the Board a firm of external auditors to be engaged by the Corporation, and to verify the independence of such external auditors;
  - (b) to review and approve the fee, scope and timing of the audit and other related services rendered by the external auditors;
  - (c) review the audit plan of the external auditors prior to the commencement of the audit;
  - (d) to review with the external auditors, upon completion of their audit:
    - (i) contents of their report;
    - (ii) scope and quality of the audit work performed;
    - (iii) adequacy of the Corporation's financial and auditing personnel;
    - (iv) co-operation received from the Corporation's personnel during the audit;
    - (v) internal resources used;
    - (vi) significant transactions outside of the normal business of the Corporation;
    - (vii) significant proposed adjustments and recommendations for improving internal accounting controls, accounting principles or management systems; and
    - (viii) the non-audit services provided by the external auditors;
  - (e) to discuss with the external auditors the quality and not just the acceptability of the Corporation's accounting principles; and
  - (f) to implement structures and procedures to ensure that the Committee meets the external auditors on a regular basis in the absence of management.
3. The duties and responsibilities of the Committee as they relate to the Corporation's internal auditors are to:

- (a) periodically review the internal audit function with respect to the organization, staffing and effectiveness of the internal audit department;
- (b) review and approve the internal audit plan; and
- (c) review significant internal audit findings and recommendations, and management's response thereto.

4. The duties and responsibilities of the Committee as they relate to the internal control procedures of the Corporation are to:

- (a) review the appropriateness and effectiveness of the Corporation's policies and business practices which impact on the financial integrity of the Corporation, including those relating to internal auditing, insurance, accounting, information services and systems and financial controls, management reporting and risk management;
- (b) review compliance under the Corporation's Business Conduct Policy and to periodically review this policy and recommend to the Board changes which the Committee may deem appropriate;
- (c) review any unresolved issues between management and the external auditors that could affect the financial reporting or internal controls of the Corporation; and
- (d) periodically review the Corporation's financial and auditing procedures and the extent to which recommendations made by the internal audit staff or by the external auditors have been implemented.

5. The Committee is also charged with the responsibility to:

- (a) review the Corporation's quarterly statements of earnings, including the impact of unusual items and changes in accounting principles and estimates and report to the Board with respect thereto;
- (b) review and approve the financial sections of:
  - (i) the annual report to shareholders;
  - (ii) the annual information form;
  - (iii) prospectuses; and
  - (iv) other public reports requiring approval by the Board,and report to the Board with respect thereto;
- (c) review regulatory filings and decisions as they relate to the Corporation's consolidated financial statements;
- (d) review the appropriateness of the policies and procedures used in the preparation of the Corporation's consolidated financial statements and other required disclosure documents, and consider recommendations for any material change to such policies;
- (e) review and report on the integrity of the Corporation's consolidated financial statements;
- (f) review the minutes of any audit committee meeting of subsidiary companies;
- (g) review with management, the external auditors and, if necessary, with legal counsel, any litigation, claim or other contingency, including tax assessments that could have a material effect upon the financial position or operating results of the Corporation and the manner in which such matters have been disclosed in the consolidated financial statements;
- (h) review the Corporation's compliance with regulatory and statutory requirements as they relate to financial statements, tax matters and disclosure of material facts;
- (i) develop a calendar of activities to be undertaken by the Committee for each ensuing year and to submit the calendar in the appropriate format to the Board of Directors following each annual general meeting of shareholders; and
- (j) establish procedures for:

- (i) the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal accounting controls, or auditing matters; and
- (ii) the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters.