



**ANNUAL INFORMATION FORM**

**Fiscal year ended December 31, 2014**

**March 29, 2015**

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In this Annual Information Form, unless otherwise specified, all dollar amounts are expressed in Canadian dollars.

*This document contains certain forward-looking information. This forward-looking information includes, or may be based upon, estimates, forecasts, and statements as to management's expectations with respect to, among other things, the size and quality of the Company's mineral resources, progress in permitting and development of mineral properties, timing and cost for placing the Company's mineral projects into production, costs of production, amount and quality of metal products recoverable from the Company's mineral resources, demand and market outlook for metals and coal and future metal and coal prices. Forward-looking information is based on the opinions and estimates of management as well as certain assumptions at the date the information is given (including, in respect of the forward-looking information contained in this document, assumptions regarding the Company's ability to arrange necessary financing and obtain all necessary permits for its projects and the capital and operating costs of its projects). However, such forward-looking information is subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information. These factors include the inherent risks involved in the exploration and development of mineral properties, uncertainties with respect to the receipt or timing of required permits and regulatory approvals, the uncertainties involved in interpreting drilling results and other geological data, fluctuating metal and coal prices, the possibility of project cost overruns or unanticipated costs and expenses, uncertainties relating to the availability and costs of financing needed in the future, uncertainties related to metal recoveries and other factors. See "Description of the Business - Risk Factors". Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that mineral resources will be converted into mineral reserves. Readers are cautioned to not place undue reliance on forward-looking information because it is possible that predictions, forecasts, projections and other forms of forward-looking information will not be achieved by the Company. The forward-looking information contained herein is made as of the date hereof and the Company assumes no responsibility to update them or revise it to reflect new events or circumstances, except as required by law.*

## **CORPORATE STRUCTURE**

### **Name, Address and Incorporation**

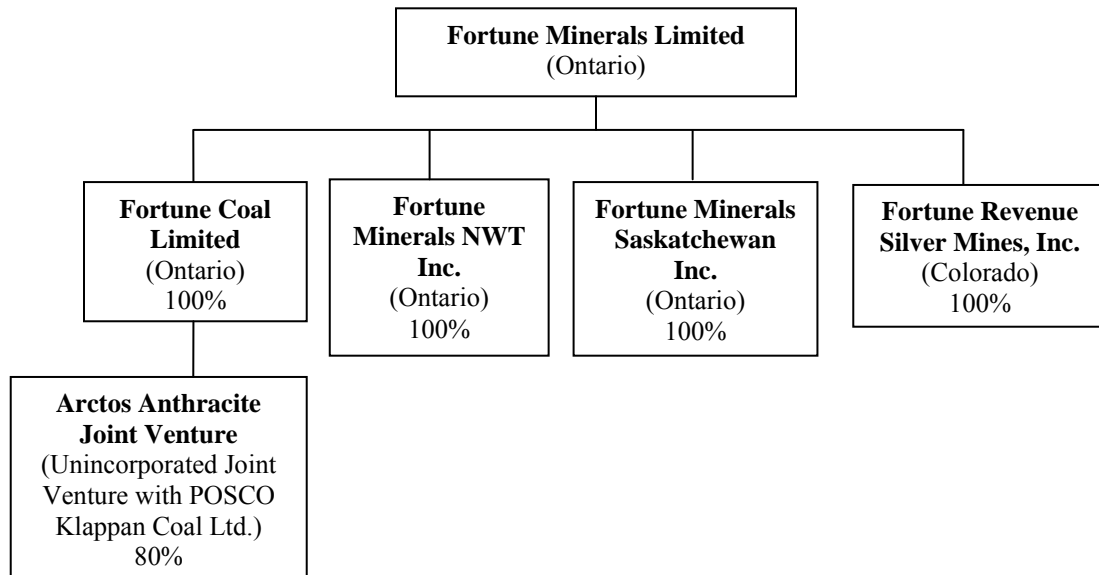
Fortune Minerals Limited ("FML", "the Company", or "Fortune") was incorporated by certificate of incorporation under the laws of the Province of Ontario dated August 2, 1988. By certificate and articles of amendment dated March 2, 1989, FML amended its articles to remove the private company restrictions from its articles. By certificate and articles of amendment dated July 28, 1997, FML amended its articles to subdivide the common shares on a three-for-one basis.

The Company has four material subsidiaries, Fortune Minerals Saskatchewan Inc. ("FMSI"), Fortune Minerals NWT Inc. ("FMNI"), Fortune Coal Limited ("FCL"), and Fortune Revenue Silver Mines, Inc. ("FRSMI"), all of which are wholly-owned by FML. All such subsidiaries were incorporated under the laws of the Province of Ontario with the exception of FRSMI which was incorporated under the laws of the state of Colorado. Unless the context otherwise requires, the terms "Fortune" and "the Company" where used herein refer to Fortune Minerals Limited, Fortune Minerals Saskatchewan Inc., Fortune Minerals NWT Inc., Fortune Coal Limited and Fortune Revenue Silver Mines, Inc. on a consolidated basis. In 2011, FCL entered into an unincorporated joint venture, the Arctos Anthracite Joint Venture ("Arctos JV") with POSCO Canada Ltd. ("POSCAN") and POSCO Klappan Coal Ltd., a wholly owned subsidiary of POSCAN. FCL's 80% interest in the Arctos JV is accounted for by the Company as a joint operation using proportionate consolidation.

FML's registered and head office is located at Suite 1600, 148 Fullarton Street, London, Ontario, N6A 5P3, its telephone number is (519) 858-8188 and its fax number is (519) 858-8155. FML is a reporting issuer in Ontario, Quebec, British Columbia and Alberta.

## Intercorporate Relationships

The following diagram sets forth the organizational structure of FML and its material affiliates:



## GENERAL DEVELOPMENT OF THE BUSINESS

### Three Year History

Fortune is a diversified mining and resource development company with one mine that is in commissioning, several mineral deposits in the advanced exploration and development stage, and exploration projects, located in Canada and the United States of America (“U.S.A.”). The Company is currently focused on its most recent acquisition, the Revenue Silver Mine (“RSM”) and advancing it through commissioning toward commercial production and the NICO gold-cobalt-bismuth-copper deposit (“NICO”) in the Northwest Territories (“NWT”). As part of the development of the NICO deposit, Fortune has purchased lands near Saskatoon, Saskatchewan, where it proposes to construct a hydrometallurgical process plant to process bulk concentrates produced from the NICO property to high value metal products (the “Saskatchewan Metals Processing Plant” or the “SMPP”). Based on completed feasibility studies to date, both the Arctos and NICO projects contain reserves to support mining operations. In addition, the Company owns, through the Arctos JV, an 80% interest in the Arctos anthracite metallurgical coal deposits (“Arctos”) in British Columbia, the Sue-Dianne copper-silver-gold deposit (“Sue-Dianne”) and other exploration projects in the NWT. Fortune is pursuing growth of shareholder value through assembly, development and operation of high quality mineral resource projects. The Company’s strategy is currently focused on the RSM and NICO.

In pursuit of its strategy, Fortune is: (i) building and enhancing existing relationships with Aboriginals, local communities, government representatives and other stakeholders who may be impacted by and benefit from the RSM, NICO and SMPP projects; (ii) obtaining environmental and operational permits for RSM, NICO and the SMPP; and, (iii) engaging with potential strategic and financing partners, evaluating potential transactions and acquiring the funding for the development, construction and successful commercial production of the RSM and NICO projects.

#### *Year Ended December 31, 2012*

During 2012, exploration and evaluation cash expenditures by the Company on its properties were \$10,315,094, of which \$5,329,629 was spent on NICO and \$4,981,520 was spent on Arctos. Expenditures on plant and equipment for mining properties were \$2,489,465, which included: the purchase of the land near Saskatoon, Saskatchewan on which the Company plans to construct the Saskatchewan Metals Processing Plant; permitting and engineering activities for the SMPP; and, storage and insurance costs of the Hemlo Assets located at various staging locations.

As part of the agreement establishing the Arctos JV (the “Arctos JV Agreement”), entered into in 2011, an initial budget was completed, focused on engaging with aboriginal and other local communities and building stakeholder support for Arctos, securing permits, and conducting more detailed engineering to support permitting and mine planning. The funding required to construct both the Lost Fox Mine at Arctos and railway infrastructure is currently estimated at \$788.6 million, which would result in POSCAN’s total contribution to the Arctos JV being \$157.7 million, or 20%, and Fortune’s contribution being \$630.9 million, or 80%. Based on an assumed financing scenario of 70% debt and 30% equity, Fortune’s equity requirement is currently estimated to be \$189 million over the life of the construction phase. During the year ended December 31, 2012, the Company undertook various activities as part of the initial program and budget.

During 2012, the Company retained Marston Canada Ltd. (“Marston”), acquired by Golder Associates Limited (“Golder”) in 2011, to update the geological model, coal reserves and feasibility study for the Lost Fox deposit area. The updated definitive feasibility study that was completed incorporates the results of additional drilling and survey data for the Lost Fox deposit area, which together with updated operating and capital costs, confirms an increase in reserves and robust economics for the Arctos project. See “Description of the Business-Arctos Anthracite Coal Project”. In addition, the Company engaged environmental, permitting and community and government relation consultants including Stantec, DPRA Canada and Fleishman Hillard, to assist with advancing the Arctos environmental assessment (“EA”) process and community relations activities. To advance the EA process, the Company conducted additional environmental baseline work required, primarily along the rail route and drafted application information requirements. The Company also engaged in various

activities to enhance relationships with key groups, including impacted local communities and First Nations and government regulators. The Company held numerous meetings during 2012 with the Tahltan and Gitksan First Nations, federal government ministries, regulators, and other interested parties.

During 2012, the Company's business activities related to NICO were focused on critical path activities required to advance permitting and financing the NICO mine and concentrator and SMPP.

The Company advanced the EA process for the permitting of the NICO mine and mill during 2012 as information requests from interested parties related to the Company's Developers Assessment Report ("DAR") were responded to and public hearings sessions were completed. On October 22, 2012 the public registry was closed, a significant milestone in the EA process. The Mackenzie Valley Review Board ("MVRB") then prepared its Report of Environmental Assessment and Reasons for Decisions ("EA Report") for the Minister of Aboriginal Affairs and Northern Development Canada ("AANDC"). While the EA Report and recommendation were under review by the Minister, the Company advanced discussions with the Tlicho Government towards completing agreements on the NICO development.

In addition, the Company completed the front-end engineering and design ("FEED") study and updated mineral reserves. The FEED study, by Jacobs Minerals Canada ("Jacobs"), included several other engineering companies, and culminates more than three years of geological modelling, mine, infrastructure and process plant engineering, and metallurgical test work to improve the project and reduce risk from capital cost escalation and commodity price volatility. With this FEED study completed, Fortune was well positioned to advance its pursuit of strategic partners and secure project financing to develop the NICO project. See "Description of the Business-NICO Gold-Cobalt-Bismuth-Copper Deposit".

In 2012, Fortune continued working on engineering updates based on additional market data of customer needs related to various forms of metal products, and First Nations input, with trade-off studies and optimization of the NICO concentrator and SMPP design and processes in order to refine capital and operating cost estimates. Specifically, in the second quarter of 2012, successful pilot plant tests were completed for the production of cobalt sulphate, proving that a battery-grade cobalt sulphate product used to make high performance rechargeable batteries can be produced. Battery-grade cobalt sulphate is the preferred product by many battery manufacturers that would otherwise need to process metals to produce the sulphate and also results in improved economics due to lower operating costs and higher sales prices. As a result of changes made to the detailed engineering and planning for NICO during the fourth quarter of 2012, the Company determined that certain Hemlo assets previously acquired for use at NICO would no longer be required. Due to the changes to the project and mine plan, the Company decided to sell the assets that will no longer be utilized at NICO and recorded an impairment charge of \$5,431,239.

#### ***Year Ended December 31, 2013***

During 2013, exploration and evaluation cash expenditures by the Company on its properties were \$13,975,717, of which \$6,057,845 was spent on NICO and \$7,939,401 was spent on Arctos. Expenditures on plant and equipment for mining properties and corporate assets were \$526,267, which included: permitting and engineering activities for the SMPP; storage costs of Hemlo Assets located at various staging locations; and, additions of corporate assets to support growth of the Company.

During 2013, Fortune received a strategic investment of \$11.7 million from Procon Resources Inc. ("Procon") in exchange for 29.25 million newly issued common shares at \$0.40 per share, resulting in Procon holding a 19.4% ownership stake in the Company on a non-diluted basis. As a result of this investment, Mr. Edward Yurkowski, Chief Executive Officer of Procon, joined Fortune's Board of Directors. The strategic investment of \$11.7 million from Procon was used by Fortune to advance NICO. Fortune and Procon worked together to advance the NICO project towards commencing commercial construction activities, including negotiating project financing arrangements and completing detailed engineering and a project execution plan.

In 2013, the Company also undertook various activities as part of the initial Arctos JV program and budget. The Company continued to engage environmental, permitting and community and government relation

consultants including Stantec, DPRA Canada and Fleishman Hillard, to assist with advancing the Arctos EA process and community relations activities. During the year, Fortune submitted a revised Project Description to the British Columbia Environmental Assessment Office (“BCEAO”) and the Canadian Environmental Assessment Agency (“CEAA”), which included: extending the Dease Lake railway line in northwest British Columbia 150 km to the proposed mine along the existing railway roadbed; updates to reflect a three million tonne per annum production rate; and, modifications to reduce environmental impacts. The CEAA subsequently accepted the Project Description and the BCEAO issued a Section 10 order that determined the project to be reviewable and requires the EA to proceed. The BCEAO had also submitted a request to the CEAA for “substitution”, which would streamline the EA process under a single regulatory body in BC, making the EA more efficient with the elimination of unnecessary duplication. On May 31, 2013, CEAA granted substitution of the environmental assessment to the BCEAO. The BCEAO has convened a working group which consists of First Nations representatives and various government subject matter experts. The first meeting of the working group took place in 2013 and the next meeting is scheduled to take place in the second quarter of 2014. In 2013, the Company conducted additional baseline work, primarily along the rail route and the mine site. The Company also engaged in various activities to enhance relationships with key groups, including impacted local communities and First Nations and government regulators. The Company held numerous meetings during the year with representatives from the Tahltan and Gitksan First Nations, federal government ministries, regulators, and other interested parties.

In 2013, Fortune also conducted engineering studies in support of the Arctos project, including a mine access road study by AllNorth Consultants Limited, a power line routing study by Valard Power, and a prefeasibility level study of the railway construction between Minaret and the mine site. A sub-agreement was also completed with CN Rail (“CN”) for the engineering work to upgrade the existing railway south of Minaret to Fort Saint James where the Dease Lake Line requires upgrading to accommodate efficient use of coal unit trains (in progress). Negotiations are also underway with CN for a framework agreement on how the railway will be operated and costs recovered by the Arctos JV from third-party users. Additional LiDAR imagery was conducted for the mine, access road and power line routes. In addition, a summer field program was carried out at the Arctos site to support the EA process. This work included drilling 19 cored bore holes to collect hydrogeological, geochemical and geotechnical information for use by Stantec Consulting (“Stantec”), Lorax Environmental Ltd. and Terracon Geotechnique Ltd., respectively. Work at the site also included archeological assessments, and air, water quality, and wildlife studies by Stantec focused on the rail bed between the mine site and Minaret. Regrettably, the Company was faced with disruptive and damaging protests towards the end of the 2013 summer field program. This resulted in the Company voluntarily ceasing its summer field program activities early and withdrawing from the project site temporarily to support a new course of mediation between the Government of British Columbia and the Tahltan Central Council to resolve issues that have impacted work in and around the Arctos project site.

Through the year, the Company’s business activities related to NICO were focused on critical path activities required to advance permitting and financing of both NICO and the SMPP. The Company advanced the EA process for the permitting of the NICO mine and mill during 2013. On January 25, 2013, the MVRB completed its EA Report and recommended approval of the mine and mill for the NICO project. The MVRB concluded that a full environmental review of the NICO mine and mill is not necessary and that it should proceed to the regulatory phase for approvals subject to the measures set out in its EA Report. The EA Report and recommendation was submitted to the Minister of AANDC for approval and signature, and to the Tlicho Government. The Company achieved a major milestone by obtaining approval from the federal and Tlicho governments on July 17 and 18, respectively. As a result, the NICO mine and mill progressed to the licensing and permitting phase, which is in process with an estimated completion date of mid-2014 based on the MVRB’s published timeline.

On July 3, the Company received a Tlicho Land Access Agreement permit, one of the first permits issued under the Tlicho Government’s new Land Use Plan Law that came into effect on June 1, 2013. The permit allows the Company to complete geotechnical and other work needed for detailed engineering for the NICO Project Access Road (“NPAR”) pending financing of this activity. The Company is advancing discussions with the Tlicho Government towards completing agreements on the NICO development.

During the year, Fortune also worked with Procon, Hatch Ltd., (“Hatch”), Golder, SGS and Jacobs to conduct additional metallurgical test work and detailed engineering for the NICO project, including the preparation of updated capital and operating costs, equipment procurement studies and an execution plan for the proposed development. EBA Engineering Ltd. (“EBA”) also developed detailed engineering for the NICO access road from the community of Whati. Industry experts were also retained to provide updates for the cobalt and bismuth markets as the basis for future product and price planning. All of this information was compiled in an updated feasibility study by Micon International Limited (“Micon”) that was in 2014. The Micon report was prepared in order to support project financing activities with Procon and its parent company, China CAMC Engineering Co., Ltd. (“CAMCE”) who are proposing to help develop the NICO project.

As a result of changes made to the detailed engineering and planning for NICO during 2013, the Company determined that certain of the Hemlo Assets previously acquired for use at NICO would no longer be required. Due to the changes to the project and mine plan, the Company decided to sell the assets that will no longer be utilized at NICO and recorded an impairment charge of \$8,581,906 for accounting purposes.

#### ***Year Ended December 31, 2014***

During 2014, development cash expenditures by the Company on its RSM project were \$21,483,214 and exploration and evaluation cash expenditures by the Company on its properties were \$4,197,126, of which \$2,660,155 was spent on NICO and \$1,533,865 was spent on Arctos. Expenditures on plant and equipment for mining properties and corporate assets were \$2,835,457, which included: permitting and engineering activities for the SMPP; storage costs of Hemlo Assets located at various staging locations; additions of fixed assets for RSM; and, additions of corporate assets to support growth of the Company.

During 2014, the Company purchased the assets of the RSM in a two-stage purchase from the previous ownership group that included Silver Star Resources LLC, Star Mine Operations LLC and Revenue-Virginus Mines Corporation and other individuals and corporations (collectively, “the Vendors”). The first phase of the acquisition included the purchase of 12% interest in the RSM and was completed on May 9, 2014. Consideration paid consisted of \$US 2 million in cash and 32 million common shares of the Company valued at \$10,880,000, which was determined based on the fair market value per share of \$0.34 on May 9, 2014. The RSM is located in southwestern Colorado, U.S.A and is a silver mine in the commissioning stage with by-products of gold, lead, zinc and potentially copper. Pursuant to a Participating Interest and Asset Purchase Agreement (“PIAPA”) dated as of May 1, 2014 among Fortune, FRSMI and the Vendors, as amended, FRSMI became the operator of the RSM effective May 1, 2014 with the responsibility for the direction and control of the activities at the mine. In addition, the Company became responsible from the effective date for all costs, expenses and liabilities related to the mine, and was entitled to all of the revenues from the mine.

The second phase of the acquisition was completed on October 1, 2014, whereby FRSMI purchased the remaining 88% interest in the RSM. Consideration paid in accordance with the amended PIAPA was \$US 18 million paid in installments of \$US 15 million on October 1, 2014 and \$US 3 million on October 16, 2014 and an additional \$0.5 million in interim period expenditures to the vendors of RSM paid in \$0.25 million increments on September 18, 2014 and October 1, 2014. In addition, 17,744,000 common shares were issued on November 20, 2014 to the vendors upon shareholder and regulatory approvals. On closing of the acquisition on October 1, 2014, the Company assumed certain obligations and liabilities of the Vendors to the previous owner of the RSM as follows:

- \$US 4 million cash payment made on October 1, 2014;
- 2% net smelter return royalty to a maximum of \$US 9 million, adjusted for inflation on a Consumer Price Indexed (“CPI”) basis;
- 1% net smelter return royalty to a maximum of \$US 9 million, adjusted for inflation on a CPI basis to be paid on sales during a calendar month, if and when the price of silver is more than \$US 60 per ounce to be paid after the 2% net smelter return royalty reached \$US 9 million on a CPI basis;
- a bonus payment of \$US 2 million if the price of silver on the London Bullion market exceeds \$US 40 per ounce for any day on or prior to December 31, 2016; and



- a bonus payment of \$US 500,000 to be paid in 10 equal monthly installments if the price of silver on the London Bullion market exceeds \$US 30 per ounce for any day on or prior to December 31, 2017.

In order to finance the acquisition and operations of the RSM, the Company entered into a General Corporate Facility agreement (“the General Corporate Facility”) with LRC-FRSM LLC (“LRC”) on September 18, 2014 for \$US 4 million. This \$US 4 million bridge loan supported the Company’s short-term working capital requirements and the advancement of near term capital improvements required at the mine.

On October 1, 2014, the Company entered into a second facility with LRC, a Senior Secured Metal Prepay Agreement (“the Metal Prepay Facility”), which resulted in the Company receiving total financing of \$US 35 million. The first tranche of \$US 25 million was received on October 1, 2014 and the second tranche of \$US 10 million was received on October 16, 2014. The Company used the funding from the first tranche to repay the General Corporate Facility, fund the RSM acquisition, including amounts owing to the previous owner of the mine, make capital investments to improve the mine operations, and provide working capital. The Metal Prepay Facility principal will be repaid from a fixed schedule of metal shipments from the RSM to LRC-FRSM LLC, plus interest of 9.25% over a five year term. The Metal Prepay Facility is secured by a first charge on the assets of the Company, and is supported by guarantees from Fortune and its other subsidiaries.

On December 22, 2014 the Company received an additional US \$7 million financing to FRSMI from LRC to provide working capital for the commissioning of the RSM. Subsequent the December 31, 2014 LRC has provided an additional US\$9 to FRSMI pursuant to the working capital facility. The working capital facility is also structured as a metal prepay facility and will be repaid in metal by December 31, 2015 and accrues interest at 15% per annum.

The Company is forming strategic relationships in order to supply key partners and markets for Fortune’s commodities. This strategy continues to be the focus to advance the development of the Company’s NICO and Arctos projects

In 2014, the Company also undertook various activities as part of the initial Arctos JV program and budget. The Company continued to engage environmental, permitting and community and government relation consultants to assist with advancing the Arctos EA process and community relations activities. The Company conducted additional baseline, geochemical, hydrogeological, geotechnical, and archaeological studies and completed the draft application information request.

Through the year, the Company’s business activities related to NICO were focused on critical path activities required to advance permitting and financing of both the NICO mine and SMPP sites. The Company advanced the EA process for the permitting of the NICO mine and mill during 2014. In January 2014, Fortune was approved for a staging (interim) land use permit for the NICO mine, which would allow for Fortune to conduct land-based early works at the mine site including staging of equipment and site preparation activities. The Wek’èezhì Land and Water Board (“WLWB”) issued the land use permit and approved the Type A water licence and recommended to the Government of the Northwest Territories (“GNWT”) Minister of Environment and Natural Resources for final approval, which was subsequently received on July 23, 2014, resulting in the NICO project having the primary permits required for construction and operations subject to meeting permit conditions and posting of initial reclamation security with the GNWT.

During the year, the Company also worked with Procon and Hatch on a number of post FEED study improvements to the NICO Project and to provide updated operating and capital cost information for the Micon feasibility study discussed below and summarized in the NICO 2014 Technical report. Execution plans were also refined for potential construction activities planned for 2015, subject to receipt of financing.

On April 2, 2014, the Company announced the results of an updated feasibility study by Micon. The report was prepared in order to document a number of improvements that were made to the NICO project and to provide a comprehensive document to advance negotiations for project financing with potential strategic partners and

their banks. The report updated the economics for the project from the 2012 FEED Study and a technical report reflecting the updated feasibility study dated May 5, 2014 prepared by Micon entitled “Technical Report on the Feasibility Study for the NICO Gold-Cobalt-Bismuth-Copper Project, Northwest Territories, Canada”.

With respect to the SMPP, Fortune filed the Environmental Impact Study (“EIS”) with the Saskatchewan Environmental Assessment Branch (“SEAB”) in late 2013. The EIS and associated documentation was posted for public comment and followed by the SEAB’s recommendation to the Saskatchewan Minister of Environment. On February 11, 2014, the Minister of Environment for the Province of Saskatchewan accepted the SEAB’s recommendation and approved the Company’s proposed SMPP, subject to certain conditions. With this approval, the Company is now undertaking the process of rezoning its land with the Rural Municipality of Corman Park.

The Company continued to maintain its core group of management and employees to lead activities on the critical path to production while focusing on minimizing general and administrative expenses to support and finance its principal projects.

### **Significant Acquisitions**

Fortune did not make any significant acquisitions, as such term is defined in National Instrument 51-102, during the year ended December 31, 2014, nor during the subsequent period to the date of this Annual Information Form.

## **DESCRIPTION OF THE BUSINESS**

### **General**

Fortune is a diversified mining and mine resource development company. Its common shares are listed on The Toronto Stock Exchange (“TSX”) under the symbol “FT” and on the OTC Markets Group Inc.’s PTCQX International tier (“OTCQX”) under the symbol “FTMDF”. Fortune is involved in the mining and concentration of metals and the sale of these concentrates to produce revenues from silver, gold, lead and zinc from the RSM in Colorado, U.S.A. The Company is also involved in the exploration and development of coal, specialty metals, base metals and precious metals, primarily in the Northwest Territories and British Columbia. The RSM project in Colorado is in late stage commissioning and is expected to reach commercial production in 2015 subject to receipt of all necessary financing. Projects at advanced stages of exploration and development include the NICO and Sue-Dianne projects in the NWT as well as the Arctos project in British Columbia. Fortune is also planning to construct a hydrometallurgical processing plant in Saskatchewan to process bulk concentrates from NICO. The Company has approximately 15 full-time personnel across Canada including Community Liaison representatives and 142 employees in Colorado. Community Liaisons are located within communities near NICO to consult and communicate with local residents about the impacts and benefits of the projects.

### **Risk Factors**

The operations of the Company are speculative due to the high-risk nature of its business, which are the acquisition, financing, exploration and development of mining properties. The risks below are not the only ones facing the Company. Additional risks not currently known to the Company, or that the Company currently deems immaterial, may also impair the Company’s operations. If any of the following risks actually occur, the Company’s business, financial condition and operating results could be adversely affected.

### **Permits and Licenses**

The operations of the Company require licenses and permits from various governmental authorities. The Company believes that it presently holds all necessary licenses and permits required to carry out the activities it is currently conducting under applicable laws and regulations and the Company believes it is presently complying in all material respects with the terms of such licenses and permits. However, such licenses and

permits are subject to change in regulations and in various operating circumstances. On February 11, 2014, the Saskatchewan Minister of Environment accepted the SEAB's recommendation and approved the Company's proposed SMPP, subject to certain conditions. With this approval, the Company is now completing the process of rezoning its land with the Rural Municipality of Corman Park. In addition, the Company is continuing activities to assist with the advancing the Arctos EA process. Subject to receiving environmental certificates and approvals, the Company will be required to apply and obtain mining permits in order to build and operate a mine. There can be no assurance that the Company will be able to obtain all licenses and permits required to carry out future exploration, development and mining operations at its projects.

#### ***Limited Financial Resources***

The existing financial resources of the Company are not sufficient to bring any of its properties into commercial production. The Company will need to obtain additional financing from external sources and/or find suitable joint venture partners in order to bring the RSM into commercial production and fund the development of Arctos and NICO, including the SMPP. There is no assurance that the Company will be able to obtain such financing or joint venture partners on favourable terms or at all. Failure to obtain financing or joint venture partners could result in delay or indefinite postponement of further exploration and development of the Company's properties and could have material adverse consequences for the Company.

#### ***Aboriginal Title and Rights Claims***

Aboriginal title and rights may be claimed with respect to Crown properties or other types of tenure with respect to which mining rights have been conferred. The Company is not aware of any aboriginal land claims having been formally asserted or any legal actions relating to aboriginal issues having been instituted with respect to Arctos, NICO or the SMPP properties other than certain treaty rights established by the Tahltan and Gitksan for Arctos and by the Tlicho for NICO. The lands that surround NICO are owned by the Tlicho Government pursuant to an agreement between the Government of Canada, the Northwest Territories and the Tlicho Government. The Company is aware of certain First Nations that claim certain title and rights with respect to Crown properties related to the Company's projects that may or may not be formally asserted with the Crown in order to seek comprehensive land claim settlements. In 2005, the Company's Arctos property was the subject of a blockade by a group of individuals, most being aboriginals, which required the Company to obtain a court injunction to remove the blockade. The Company was again faced with disruptive and damaging protests at the Arctos project site towards the end of the 2013 summer field program. This resulted in the Company voluntarily ceasing its summer field program activities early and withdrawing from the project site temporarily to support a new course of mediation between the Government of British Columbia and the Tahltan Central Council to resolve issues that have impacted work in and around the Arctos project site. The Company is not currently engaged in any activities to develop the Arctos project.

For NICO, while the Company has a right of access to the NICO mine site under the Tlicho agreement with the Crown, an access agreement will be required between the Tlicho and the Company for the use of the access roads to be built through Tlicho territory to the site. During 2014, various discussions with the GNWT have taken place in relation to the socio-economic agreement and funding for the all-weather road which is critical in determining the construction schedule for the project. The Company is aware of the mutual benefits afforded by co-operative relationships with aboriginal communities in conducting exploration and development activity and is supportive of measures established to achieve such cooperation including preferential hiring practices, local business development activities, involvement in environmental stewardship and other forms of accommodation. The Company has previously entered into a Co-operative Relationship Agreement and Environmental Assessment Funding Agreement with the Tlicho Government and an Environmental Assessment Process Funding Agreement with the Tahltan Central Council. The Company received a Bronze Level award for work in Progressive Aboriginal Relations ("PAR") from the Canadian Council for Aboriginal Business ("CCAB"). The PAR program is the first and only corporate responsibility assurance program in the world with an emphasis on aboriginal relations. The Company has worked with guidance and support from the CCAB to document practices, policies and behaviours that quantify and validate the Company's commitment to positive and progressive aboriginal relations. The Company is committed to open and constructive dialogue with aboriginal communities and will continue to make every effort to increase aboriginal employment and business through its human resources and supply chain policies. However, certain challenges with respect to timely

decision making may be encountered when working with First Nation governments as a result of the limited number of key individuals in leadership positions, turnover of leadership personnel and delays while elections are held. It will also be necessary for the Company to negotiate and enter into appropriate participation agreements with relevant First Nations in order to bring its projects into production and there is no assurance that the Company will be able to negotiate such agreements on favourable terms or at all. In addition, other parties may dispute the Company's title to the properties and the properties may be subject to prior unregistered agreements or transfers or land claims by aboriginal peoples, and title may be affected by undetected encumbrances or defects or government actions.

### ***Fluctuating Prices***

Factors beyond the control of the Company may affect the marketability of silver, lead, zinc, coal, cobalt, bismuth, gold, copper or any other minerals discovered. The range in market prices, over the last five years, for silver has been volatile: annual average silver prices have ranged from a low of US\$19.97/oz in 2014 to a high of US\$35.12/oz in 2011; annual average lead prices have ranged from a low of US\$0.69/lb (2010) to a high of US\$1.33/lb (2011); annual average zinc prices have ranged from a low of US\$0.72/lb (2010) to a high of US\$1.22/lb (2010). For NICO, the range in market prices are as follows: annual average gold prices have ranged from a low of US\$1.224/oz in 2010 to a high of US\$1,669/oz in 2012; annual average cobalt prices have ranged from a low of US\$13.20/lb (2013) to a high of US\$20.56/lb (2010); annual average copper prices have ranged from a low of US\$3.10/lb (2014) to a high of US\$3.99/lb (2011); annual average bismuth prices have ranged from a low of US\$8.71/lb (2013) to a high of US\$11.62/lb (2011). For anthracite coal at Arctos, market prices of metallurgical coal of this quality are less readily available. However, based on spot prices and trend setting contracts entered into by certain metallurgical coal producers, it is believed that over the last five years ultra-low volatile pulverized coal injection ("ULV PCI") coal prices have ranged from approximately US\$85/tonne to US\$275/tonne and coking coal prices have ranged from approximately US\$105/tonne to US\$330/tonne. The commodity prices have fluctuated widely and are affected by numerous factors beyond the Company's control such as the economic downturn observed in 2008 and 2009, commodity supply shortages, weather events, political instability, and changes in exchange and interest rates. The effect of these factors cannot accurately be predicted.

### ***Dependence on Key Personnel and Limited Management Team***

Fortune is dependent on the services of its senior executives including the President and Chief Executive Officer, Chief Financial Officer, Vice President Operations and Chief Operating Officer, the RSM Site Manager and other key operations personnel at the RSM, and over a dozen full time equivalent skilled and experienced employees and consultants. The loss of any such individuals could have a material adverse effect on Fortune's operations. Fortune will need to supplement its existing management team in order to bring any of its projects into production.

### ***Nature of Mineral Exploration and Mining***

At the present time, the Company does not hold any interest in a mining property in commercial production. The RSM project is in the late-stages of commissioning and is expected to reach commercial production in 2015 subject to receipt of all necessary financing. The Company's viability and potential success is based on its ability to develop, exploit and generate revenue from mineral deposits. The exploration and development of mineral deposits involve significant financial risk over a significant period of time, which even a combination of careful evaluation, experience and knowledge may not eliminate. In order to continue developing the projects towards operation and commercial production, the Company will be required to make substantial additional capital investments. It is impossible to ensure that the past or proposed exploration and development programs on the properties in which the Company has an interest will result in a profitable commercial mining operation.

The operations of the Company are subject to all of the hazards and risks normally incident to mining, exploration and development of mineral properties, any of which could result in damage to life and property, the environment and possible legal liability. The activities of the Company may be subject to prolonged disruptions due to weather conditions as a result of the Company's properties being located in a mountainous region of Colorado and in northern Canada. Specifically, the RSM requires avalanche mitigation from heavy snow loads as well as maintenance and use of an access road constructed on a mountainside. At NICO, the

Company is subject to increased risk relating to the dependence on ice road travel to supply and equip its work programs, at Arctos the Company is subject to increased risk relating to the potential damage to the access roads resulting from drainage or snow accumulations in mountainous terrain. While the Company has obtained insurance against certain risks in such amounts as it considers adequate, the nature of these risks are such that liabilities could exceed policy limits or could be excluded from coverage. There are also risks against which the Company cannot insure or against which it may elect not to insure. For example, the Company has not obtained environmental insurance at its project sites to date and has limited its insured values of its assets to stated amounts approximating the estimated cash invested in its capital assets to date. The potential costs which could be associated with any liabilities not covered by insurance or in excess of insurance coverage or associated with compliance with applicable laws and regulations may cause substantial delays and require significant capital outlays, adversely affecting the future earnings and competitive position of the Company.

Whether a mineral deposit will be commercially viable depends on a number of factors, some of which are the particular attributes of the deposit, such as size and grade, proximity to infrastructure, financing costs and governmental regulations, including regulations relating to prices, taxes, royalties, infrastructure, land use, importing and exporting and environmental protection. The Company has undertaken activities to reduce certain risks related to its major projects through: completion of extensive exploration and drilling programs; completion of numerous environmental baseline studies; pilot plant test work and process optimization and verification; and, investing in significant engineering studies for the mine planning, mine site buildings and equipment, infrastructure and processing facility.

#### ***Competition***

The mining and mineral exploration business is competitive in all its phases. The Company competes with numerous other companies and individuals, including other resource companies with greater financial, technical and other resources than the Company, in the search for and the acquisition of attractive mineral properties, the acquisition of mining equipment and related supplies and the attraction and retention of qualified personnel. The Company will be constrained in its ability to manage the cost of salaries at the RSM, NICO and the SMPP during construction and operations as Fortune may be competing for labour with the much larger diamond mining companies operating in the Northwest Territories, oil sands projects in Alberta and potash companies operating in Saskatchewan, respectively. There is no assurance that the Company will continue to be able to compete successfully in the acquisition of building materials, sourcing equipment or hiring people.

#### ***Environmental and Climate Change Regulation***

The operations of the Company are subject to environmental regulations promulgated by government agencies from time to time. Environmental legislation provides for restrictions and prohibitions on spills, releases or emissions of various substances produced in association with certain mining industry operations, such as seepage from tailings disposal areas, which would result in environmental pollution. A breach of such legislation may result in the imposition of fines and penalties. In addition, certain types of operations require the submission and approval of environmental impact assessments. Environmental legislation is evolving in a manner which means standards, enforcement, fines and penalties for non-compliance are more stringent. Environmental assessments of proposed projects carry a heightened degree of responsibility for companies and their directors, officers and employees. The Company has carried out and completed significant environmental base line studies and environmental monitoring to position the Company to successfully complete required environmental assessments; however, despite this, the Company has not been able to obtain certain environmental certificates in a timely manner due to the complexities of the regulatory requirements and process. The cost of compliance with changes in governmental regulations has the potential to reduce the profitability of future operations. The impacts of international or domestic climate agreements, carbon taxes and other potential climate change legislation are difficult to predict and are not yet fully understood, including impacts on capital and operating costs.

#### ***Estimates of Mineral Reserves and Resources May Not be Realized***

The mineral reserve and resource estimates published from time to time by the Company with respect to its properties are estimates only and no assurance can be given that any particular level of recovery of minerals will in fact be realized or that an identified resource will ever qualify as a commercially mineable (or viable) deposit which can be legally and economically exploited. Material changes in resources, grades, stripping ratios or

recovery rates may affect the economic viability of projects. However, through extensive investment in exploration drilling, test mining, bulk sampling, engineering planning and pilot plant testing, the Company has substantially mitigated and reduced these risks. There is a risk that minerals recovered in small-scale laboratory and large scale pilot plant tests will be materially different under on-site conditions or in production scale operations. Short-term factors, such as the need for orderly development of deposits or the processing of new or different grades, may have an adverse effect on mining operations or the results of operations.

The Company has engaged expert independent technical consultants to advise it with respect to mineral reserves and resources and project engineering, among other things. The Company believes that those experts are competent and that they have carried out their work in accordance with all internationally recognized industry standards. However, if the work conducted by those experts is ultimately found to be incorrect or inadequate in any material respect, the Company may experience delays and increased costs in developing its properties.

#### ***Health and Safety Matters***

The Company's development and exploration projects are affected by various laws and regulations, including those which cover health and safety matters. Existing legislation and regulations are subject to change, the impacts of which are difficult to measure. It is the policy of the Company to maintain safe working conditions at all its work sites, comply with health and safety legislation, maintain equipment and premises in safe condition and ensure that all employees are trained and comply with safety procedures. The Company has successfully implemented policies and procedures relating to health and safety matters at its project sites and has a good safety record to date.

#### **Mineral Projects**

The following table provides information on the Company's current mineral properties:

<b>Property and Location</b>	<b>Commodity Sought <sup>(1)</sup></b>	<b>Hectares</b>	<b>Fortune Interest</b>
RSM (Colorado)	Ag, Au, Pb, Zn	443	100% <sup>(3)</sup>
NICO (NWT)	Co, Au, Bi, Cu	5,140	100%
Arctos (BC)	Anthracite coal	16,411	80% <sup>(2)</sup>
Sue-Dianne (NWT)	Cu, Ag, Au	451	100%
Salkeld Lake (NWT)	Cu, Zn, Pb, Au, Ag	116	100%
SMPP (SK)	Refinery Location	195	100%

<sup>(1)</sup> Co = cobalt, Au = gold, Bi = bismuth, Cu = copper, Ag = silver, Zn = zinc, Pb = lead,

<sup>(2)</sup> Subject to third party royalty of \$1 per tonne of coal delivered to the point of usage or sale.

<sup>(3)</sup> Subject to third party net smelter return royalties.

#### ***NICO Gold-Cobalt-Bismuth-Copper Deposit***

Set forth below is the summary section of a technical report entitled "*Technical Report in the Feasibility Study for the NICO Cobalt-Gold-Bismuth Project, Northwest Territories, Canada*" dated April 2, 2014 (the "2014 NICO Report") prepared by Micon International Limited in compliance with NI 43-101, with Harry Burgess, P.Eng., Richard M. Gowans, P.Eng., B. Terrence Hennessey, P.Geo., Christopher R. Lattanzi, P.Eng., and Eugene Puritch, P.Eng. as the Qualified Persons responsible for the updated mineral reserves and economics. The 2014 NICO Report was filed on SEDAR on May 7, 2014 and is available at [www.sedar.com](http://www.sedar.com). The 2014 NICO Report supersedes reports previously filed. The following information is of a summary nature only and reference is made to the detailed disclosure contained in the 2014 NICO Report, which is incorporated herein by reference.

SUMMARY OF 2014 TECHNICAL REPORT ON THE FEASIBILITY STUDY FOR THE NICO GOLD-COBALT-BISMUTH-COPPER PROJECT, NORTHWEST TERRITORIES, CANADA

## **1.1 INTRODUCTION**

Fortune Minerals Limited (Fortune) is a public company, listed on the Toronto Stock Exchange, with two primary assets: the NICO gold-cobalt-bismuth-copper Project in the Northwest Territories (NWT) and the Arctos anthracite Project in British Columbia. The NICO Project is 100% owned by Fortune.

Micon International Limited (Micon) has been retained by Fortune to compile an independent Feasibility Study on the NICO Project in support of financing. This Technical Report summarizes the results of that study.

The NICO Project is based on mining the NICO deposit in the NWT by a combination of open pit and underground methods, and producing a bulk gold-cobalt-bismuth-copper concentrate in a processing plant located at the Project site. The bulk concentrate will be bagged at the Project site, transported by road to the rail head at Hay River, NWT, and then hauled by rail to a dedicated siding at the Saskatchewan Metals Processing Plant (SMPP), a new hydrometallurgical facility to be built by Fortune at a permitted site approximately 26 kilometres north of Saskatoon, Saskatchewan. The SMPP, the site for which is crossed by a rail line and has a readily available source of grid power, has been designed to produce the following saleable mineral products from the bulk concentrate:

- Gold as doré bars.
- Cobalt, principally as cobalt sulphate heptahydrate, but with the option of producing cobalt carbonate, cobalt oxide, cobalt nitrate and cobalt chloride. The financial model for the Project is based on the production of cobalt sulphate heptahydrate only.
- Bismuth as bismuth ingot, bismuth needles and bismuth oxide. The financial model is based on producing 20% of the bismuth as ingot, 20% as needles and 60% as oxide.
- Copper as copper cement, which will be sold to a copper smelter for conversion to copper metal.

Fortune will be responsible for marketing all of the products.

## **1.2 PROJECT OVERVIEW**

The location of the NICO Project is shown in Figure 0.1.

**Figure 0.1**  
**NICO Project – General Location Map**



[www.fortuneminerals.com](http://www.fortuneminerals.com)

The principal Project facilities to be constructed on lands controlled by Fortune in the NWT are:

- An open pit mine with a design rate of production of 4,650 tonnes of ore per day, or approximately 1.7 million tonnes per year, which is planned to operate from June, 2017 until 2037.
- A small underground mine, which is planned to extract 1,544 tonnes of high-grade ore per day, from April, 2018 to June, 2019.
- A processing plant with a design throughput capacity of 1.7 million tonnes of ore per year, which is planned to operate from October, 2017 to 2037, and which will utilize conventional crushing, grinding and flotation processes to produce approximately 54,500 tonnes per year of a bulk sulphide concentrate, containing gold, cobalt, bismuth and copper, together with a high content of arsenic.
- A co-disposal facility for the permanent storage of both mine waste rock and process tailings.
- All of the infrastructure and service facilities required to support the productive operations.

Electric power is to be supplied by a power line, approximately 30.5 kilometres long, from the Snare Hydroelectric Complex to the Project site.

The facilities to be constructed at the SMPP comprise a complete hydrometallurgical plant which will produce saleable gold, cobalt, bismuth and copper products from the bulk concentrate produced in the NWT. Solid residues from the SMPP, which will include iron-arsenic precipitates from the cobalt circuit, iron and gypsum residues from the copper leach circuit, and solid residues from the recovery of cobalt and gold, will be disposed of in an engineered permanent residue storage facility located on the SMPP site. Liquid residue, consisting of a saline liquid waste stream and effluent from the cyanide destruction circuit, will be disposed of by deep-well injection, at a depth of approximately 800 metres below surface.



Over its operating life of approximately 20 years, the NICO Project is scheduled to mine and process 33.1 million tonnes of ore, and to produce the following quantities of saleable metals:

- Gold : 814,000 troy ounces.
- Cobalt : 70 million pounds.
- Bismuth : 74 million pounds.
- Copper : 11.2 million pounds.

### **1.3 PROJECT DEVELOPMENT**

Access to the Project site is to be provided by an all-weather road, to be constructed by the NWT and Tłıchǫ (First Nation) governments, linking the existing highway from Edmonton to Yellowknife and Behchokǫ to the Tłıchǫ community of Whatı, further to the north. This road is scheduled for completion early in 2016. Fortune will be responsible for constructing a spur road, approximately 33 kilometres long, from the end of the all-weather road to the Project site. Fortune is negotiating details of the funding and construction schedule for the all-weather road with the NWT and Tłıchǫ governments.

The schedule of Project construction, summarized below, is contingent upon timely approval of all required permits, timely arranging of Project funding and completion of the all-weather road on schedule.

It is planned to commence construction at the Project site with a program of early works in summer, 2014 and 2015. All of the material and equipment required for this program are to be brought to the Project site over the winter road, which typically remains serviceable until April. The material and equipment required for the modest program planned for 2014 are already at the site.

Full-scale construction programs are then planned for 2016 and 2017, with equipment and materials brought in over the all-weather road. The scheduled date for the commencement of productive processing operations is October, 2017.

The construction schedule for the SMPP has been dovetailed with the schedule for the Project site, in order to achieve start-up of the SMPP in October, 2017.

### **1.4 SUMMARY OF FINANCIAL EVALUATION**

Fortune has evaluated the overall economics of the NICO Project by conventional discounted cash flow techniques, under the presumption that the initial capital expenditure will be financed 30% by equity and 70% by debt. All revenues and costs are expressed in Canadian dollars, typically of fourth quarter 2013 value. Metal prices denominated in US dollars have been converted to Canadian currency at an exchange rate of C\$1.00 = US\$0.88. This exchange rate has been assumed to remain constant throughout the life of the Project. Micon has confirmed the mathematical integrity of the Fortune financial model, by independently reproducing the results.

A summary of the results of the base case financial analysis is presented in Table 0.1. All production, revenue and cost data are life-of-mine estimates.

**Table 0.1**  
**Summary of Base Case Financial Analysis**

Item	Units	Value
Mine Life	y	20
Open Pit Ore Mined	thousand t	32,500
Underground Ore Mined	thousand t	577
Concentrate Produced	thousand t	1,062
Gold Produced	thousand oz	814.4
Cobalt Produced (in sulphate)	thousand lb	69,526
Bismuth Produced	thousand lb	73,656
Copper Produced	thousand lb	11,195
Gross Revenue	C\$ million	3,842
Transport, Refining, Marketing	C\$ million	246
<b>Net Smelter Return</b>	<b>C\$ million</b>	<b>3,596</b>
Mine and Mill Operating Costs	C\$ million	746
Other Site Operating Costs	C\$ million	359
SMPP Operating Costs	C\$ million	599
<b>Operating Profit</b>	<b>C\$ million</b>	<b>1,892</b>
Corporate Administration, Interest, Fees	C\$ million	212
Royalties, Income Taxes	C\$ million	141
<b>Cash Flow Before Capital Costs</b>	<b>C\$ million</b>	<b>1,540</b>
Initial Capital Costs – Project Site	C\$ million	347
Initial Capital Costs – SMPP	C\$ million	242
Sustaining Capital Costs, Working Capital	C\$ million	60
Reclamation Security Funding	C\$ million	53
<b>Net Cash Flow</b>	<b>C\$ million</b>	<b>837</b>
Pre-Tax Present Value (7%/y discount)	C\$ million	254
Post-Tax Present Value (7%/y discount)	C\$ million	224
Pre-Tax Internal Rate of Return	%/y	15.6
Post-Tax Internal Rate of Return	%/y	15.1

Under the base case input estimates, the NICO Project is expected to yield an after-tax undiscounted life-of-mine cash flow of C\$837 million, a net present value of C\$224 million at a discount rate of 7% per year and a post-tax internal rate of return of 15.1% per year. The pre-tax economic indices are a net present value C\$254 million at a discount rate of 7% per year and an internal rate of return of 15.6% per year.

## **1.5 TECHNICAL DATA**

### **1.5.1 Geological Setting**

The NICO deposit occurs in the southern part of the Proterozoic Bear Structural Province within the Great Bear magmatic zone (GBMZ), a Paleoproterozoic belt of calc-alkaline volcanic and plutonic rocks approximately 800 km long and 100 km wide. Felsic to intermediate rocks of the Faber Group predominate in the southern part of the GBMZ, and consist of rhyodacite ignimbrites and associated flows, tuffs, breccias and volcanoclastics. These rocks are bordered by granodiorite to monzogranite plutons and intruded by coeval granite and feldspar porphyritic plugs.

The NICO deposit is hosted in iron- and potassium-altered, brecciated basement sedimentary rocks of the Treasure Island Group, at and beneath the unconformity with the volcanic Faber Group rocks. The cobalt-gold-

bismuth-copper mineralization of the deposit is located within locally altered biotite-amphibole magnetite schist of the Treasure Island Group.

Sulphide mineralization is disseminated and makes up between 3% and 10% of the mineralized rocks. The sulphide minerals are predominantly aligned along the foliation planes. Only small native gold grains have been observed. These are mainly associated with sulphides, but also occur with silicate minerals such as feldspar. The sulphides consist primarily of cobaltite/cobaltian arsenopyrite, bismuthinite and chalcopyrite.

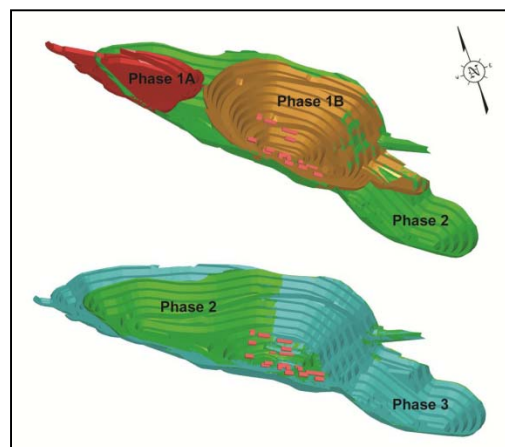
Gold mineralization forms a central ‘bull’s-eye’ to the deposit, within the cobalt-bismuth core of the magnetite mineralization, and is confined largely to the middle and lower zones.

### 1.5.2 Mineral Resource Estimate

The mineral resource estimate for the NICO deposit was prepared by P&E Mining Consultants Inc. (P&E) and is presented in Table 1.2. Open pit mineral resources are reported against a C\$46 per tonne net smelter return (NSR) cut-off, as constrained within an optimized pit shell. Underground mineral resources are reported against a C\$80 per tonne NSR cut-off. The effective date of this estimate is November 30, 2011. The mineral resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) standards on Mineral Resources and Reserves. No additional drilling has been completed since the effective date of this resource estimate.

**Table 0.2**  
**NICO Estimated Mineral Resources**

Area	NSR Cut-off (C\$/t)	Class	Tonnes x 1,000	Au (g/t)	Bi (%)	Co (%)
Open Pit	46	Measured	18,911	1.05	0.15	0.12
		Indicated	10,983	1.19	0.14	0.12
		<b>M+I total</b>	<b>29,894</b>	<b>1.10</b>	<b>0.15</b>	<b>0.12</b>
		Inferred	2	0.30	0.07	0.08
Underground	80	Measured	231	2.29	0.06	0.15
		Indicated	764	1.72	0.07	0.16
		<b>M+I total</b>	<b>995</b>	<b>1.85</b>	<b>0.07</b>	<b>0.16</b>
		Inferred	31	0.65	0.11	0.25



The underground open stopes will not be backfilled during mining. About mid-way through the life of the Project, the open pit will begin to intersect the underground workings. As they are intersected, the open stopes will be filled with broken ore from the open pit, either through drop raises or directly as they are exposed. The

open pit will then progress through the underground workings, recovering the support pillars previously left in place.

The design mine production schedule for both open pit and underground mining of the reserves is provided in Table 1.3.

### **1.5.3 Mineral Reserves**

The mineral reserves for the NICO Project, which were originally estimated by P&E and subsequently updated by Fortune, are summarized in Table 1.4. These reserves were estimated using the CIM standards on Mineral Resources and Reserves, and include allowances for mining losses and dilution.

Table 0.3  
NICO Project – Mine Production Schedule

	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
<b>MINE PRODUCTION SCHEDULE</b>																									
<b>Open Pit</b>																									
Ore Mined (thousand tonnes)	32,500			17	460	1,443	1,488	1,487	1,661	1,749	1,696	1,695	1,700	1,708	1,691	1,698	1,707	1,713	1,692	1,640	1,659	1,798	1,658	1,703	438
Low-Grade Waste Mined (thousand tonnes)	5,484			2	127	285	415	359	222	222	143	243	328	264	276	320	312	345	299	271	205	157	476	208	5
Waste Mined (thousand tonnes)	92,325			4,915	10,883	5,091	4,047	6,777	3,281	3,858	7,320	7,132	5,964	4,280	3,503	3,445	3,534	2,494	2,555	3,042	2,448	1,421	3,814	2,123	398
Total Waste Mined (thousand tonnes)	97,810			4,917	11,009	5,377	4,462	7,136	3,504	4,081	7,463	7,375	6,292	4,543	3,779	3,765	3,846	2,839	2,853	3,313	2,653	1,578	4,291	2,331	403
Total Mined (thousand tonnes)	130,310			4,934	11,470	6,820	5,950	8,623	5,165	5,829	9,159	9,070	7,992	6,251	5,470	5,463	5,553	4,552	4,545	4,953	4,312	3,376	5,948	4,034	841
Gold Grade (grams/tonne)	0.96			0.24	0.19	0.24	0.21	0.42	0.30	0.52	1.22	1.25	1.76	1.59	0.53	0.55	0.51	0.53	0.68	0.88	1.35	2.67	0.75	1.94	2.01
Cobalt Grade (%)	0.11			0.14	0.13	0.12	0.11	0.12	0.13	0.13	0.11	0.11	0.09	0.12	0.13	0.12	0.12	0.12	0.11	0.11	0.09	0.10	0.09	0.11	0.16
Bismuth Grade (%)	0.14			0.07	0.11	0.14	0.13	0.11	0.14	0.17	0.19	0.17	0.16	0.12	0.15	0.17	0.18	0.17	0.15	0.14	0.12	0.08	0.13	0.06	0.02
Copper Grade (%)	0.04			0.03	0.04	0.01	0.01	0.03	0.04	0.05	0.04	0.03	0.02	0.02	0.02	0.03	0.05	0.06	0.08	0.07	0.04	0.01	0.05	0.03	0.01
Contained Gold (thousand ounces)	1,008.2			0.1	2.9	11.0	9.8	20.3	16.3	29.4	66.7	67.9	96.4	87.1	28.9	30.2	28.0	29.0	37.3	46.5	72.1	154.1	39.9	106.1	28.3
Contained Cobalt (thousand pounds)	81,026			53	1,292	3,813	3,761	3,872	4,749	4,910	4,269	4,145	3,318	4,593	4,701	4,610	4,416	4,384	4,172	3,877	3,310	3,953	3,231	4,064	1,532
Contained Bismuth (thousand pounds)	99,923			27	1,142	4,461	4,255	3,699	5,169	6,613	7,215	6,473	5,876	4,656	5,538	6,539	6,785	6,376	5,481	5,033	4,457	3,192	4,638	2,106	194
Contained Copper (thousand pounds)	26,946			12	423	370	410	1,092	1,452	1,968	1,617	1,210	889	731	771	1,087	1,798	2,394	2,825	2,530	1,580	484	1,999	1,182	124
<b>Underground</b>																									
Ore Mined (thousand tonnes)	577					273	304																		
Gold Grade (grams/tonne)	4.96					4.10	5.74																		
Cobalt Grade (%)	0.10					0.14	0.07																		
Bismuth Grade (%)	0.17					0.28	0.07																		
Copper Grade (%)	0.02					0.03	0.01																		
Contained Gold (thousand ounces)	92.1					36.0	56.1																		
Contained Cobalt (thousand pounds)	1,307					842	465																		
Contained Bismuth (thousand pounds)	2,159					1,711	448																		
Contained Copper (thousand pounds)	250					169	81																		
<b>Total Mine Production</b>																									
Ore Mined (thousand tonnes)	33,077			17	460	1,717	1,792	1,487	1,661	1,749	1,696	1,695	1,700	1,708	1,691	1,698	1,707	1,713	1,692	1,640	1,659	1,798	1,658	1,703	438
Waste Mined (thousand tonnes)	97,810			4,917	11,009	5,377	4,462	7,136	3,504	4,081	7,463	7,375	6,292	4,543	3,779	3,765	3,846	2,839	2,853	3,313	2,653	1,578	4,291	2,331	403
Total Mined (thousand tonnes)	130,887			4,934	11,470	7,093	6,254	8,623	5,165	5,829	9,159	9,070	7,992	6,251	5,470	5,463	5,553	4,552	4,545	4,953	4,312	3,376	5,948	4,034	841
Gold Grade (grams/tonne)	1.03			0.24	0.19	0.85	1.14	0.42	0.30	0.52	1.22	1.25	1.76	1.59	0.53	0.55	0.51	0.53	0.68	0.88	1.35	2.67	0.75	1.94	2.01
Cobalt Grade (%)	0.11			0.14	0.13	0.12	0.11	0.12	0.13	0.13	0.11	0.11	0.09	0.12	0.13	0.12	0.12	0.12	0.11	0.11	0.09	0.10	0.09	0.11	0.16
Bismuth Grade (%)	0.14			0.07	0.11	0.16	0.12	0.11	0.14	0.17	0.19	0.17	0.16	0.12	0.15	0.17	0.18	0.17	0.15	0.14	0.12	0.08	0.13	0.06	0.02
Copper Grade (%)	0.04			0.03	0.04	0.01	0.01	0.03	0.04	0.05	0.04	0.03	0.02	0.02	0.02	0.03	0.05	0.06	0.08	0.07	0.04	0.01	0.05	0.03	0.01
Contained Gold (thousand ounces)	1,100.3			0.1	2.9	47.0	65.9	20.3	16.3	29.4	66.7	67.9	96.4	87.1	28.9	30.2	28.0	29.0	37.3	46.5	72.1	154.1	39.9	106.1	28.3
Contained Cobalt (thousand pounds)	82,333			53	1,292	4,655	4,226	3,872	4,749	4,910	4,269	4,145	3,318	4,593	4,701	4,610	4,416	4,384	4,172	3,877	3,310	3,953	3,231	4,064	1,532
Contained Bismuth (thousand pounds)	102,082			27	1,142	6,172	4,703	3,699	5,169	6,613	7,215	6,473	5,876	4,656	5,538	6,539	6,785	6,376	5,481	5,033	4,457	3,192	4,638	2,106	194
Contained Copper (thousand pounds)	27,196			12	423	539	490	1,092	1,452	1,968	1,617	1,210	889	731	771	1,087	1,798	2,394	2,825	2,530	1,580	484	1,999	1,182	124

**Table 0.4**  
**NICO Project – Mineral Reserves**

Type	Classification	Tonnes (thousand)	Average Grade			
			Gold (g/t)	Cobalt (%)	Bismuth (%)	Copper (%)
Open Pit	Proven	20,453	0.92	0.11	0.15	0.04
	Probable	12,047	1.03	0.11	0.13	0.04
	<b>Total</b>	<b>32,500</b>	<b>0.96</b>	<b>0.11</b>	<b>0.14</b>	<b>0.04</b>
Underground	Proven	282	4.93	0.14	0.27	0.03
	Probable	295	5.00	0.07	0.07	0.01
	<b>Total</b>	<b>577</b>	<b>4.96</b>	<b>0.10</b>	<b>0.17</b>	<b>0.02</b>
Total	Proven	20,735	0.97	0.11	0.15	0.04
	Probable	12,342	1.13	0.11	0.13	0.04
	<b>Total</b>	<b>33,077</b>	<b>1.03</b>	<b>0.11</b>	<b>0.14</b>	<b>0.04</b>

#### **1.5.4 Metallurgical Testwork**

Fortune completed extensive bench scale and pilot plant testwork studies between 1997 and 2012 using samples representative of the mineralization of the NICO deposit. The majority of this flowsheet development work was undertaken at the SGS Mineral Services laboratory, Lakefield, Ontario, Canada.

The purpose of the metallurgical test programs was to develop a process flowsheet and generate process design criteria for the recovery of bismuth, cobalt, copper and gold from the NICO deposit. Initial work in 1997 and 1998 considered the recovery of separate bismuth and cobalt concentrates, as well as a bulk product containing bismuth, cobalt, gold and copper. This process flowsheet was developed and optimized over the following years, with bench scale testwork programs in 2000, 2001, 2004/2005 and 2009, mini-pilot scale hydrometallurgical testwork in 2006, and significant pilot plant mill and flotation test runs in 2007/2008 and 2010.

The metallurgical testwork completed to date included not only flotation parameter optimization and modelling, but also grinding, gravity recovery of gold, concentrate dewatering and hydrometallurgical recovery of cobalt, bismuth, gold and copper, and the validation of a process to produce cobalt and bismuth products.

The hydrometallurgical testwork undertaken to date comprises bismuth flotation optimization tests, cobalt hydrometallurgical circuit development testing, iron and arsenic removal tests, copper recovery tests, cobalt purification and recovery testwork, bismuth recovery testwork, gold recovery tests and cyanide destruction tests.

The results of this comprehensive testwork formed the basis for the Front-End Engineering Design (FEED) studies prepared by Aker Solutions (now Jacobs Minerals Canada Inc.) in September, 2012. The FEED studies developed the flowsheets for both the processing plant at the Project site and the SMPP. The FEED studies also included, among other things, equipment lists, general arrangement drawings and cost estimates for these facilities.

#### **1.5.5 Process Plant at the Project Site**

The process design for the Project site was developed for a mineral processing plant with a throughput of approximately 1.7 million tonnes of ore per year. With an operating availability design criterion of 90%, the plant has been designed for processing 215 tonnes of ore per hour. The basic flowsheet, a simplified diagram of

which is shown in Figure 0.2, consists of conventional crushing, grinding and flotation, to produce a bulk sulphide concentrate which will be thickened, filtered and bagged, prior to shipment to the SMPP hydrometallurgical processing facility. A gravity circuit is also included in the flowsheet to recover coarse gold, ahead of the flotation circuit.

Crushing will be undertaken in three stages, with the third stage in closed circuit with screens. The crushed ore will be ground in a ball mill and Vertimills, which will operate in closed circuit with cyclones to produce a flotation feed of 80% finer than 53 microns. A bleed from the cyclone overflow will feed the gravity gold circuit. The concentrate from the gravity circuit will go directly to the final concentrate thickener, while the gravity tailing will be returned to the grinding circuit.

Underflow from the grinding circuit cyclones will feed the rougher flotation circuit, the tailing from which will flow by gravity to the tailings thickener and, ultimately, to the co-disposal facility. Concentrate from the rougher flotation circuit will feed a cleaner and cleaner-scavenger circuit, the tailings from which will be reground to a fineness of 80% passing 20 microns, and then subjected to secondary flotation.

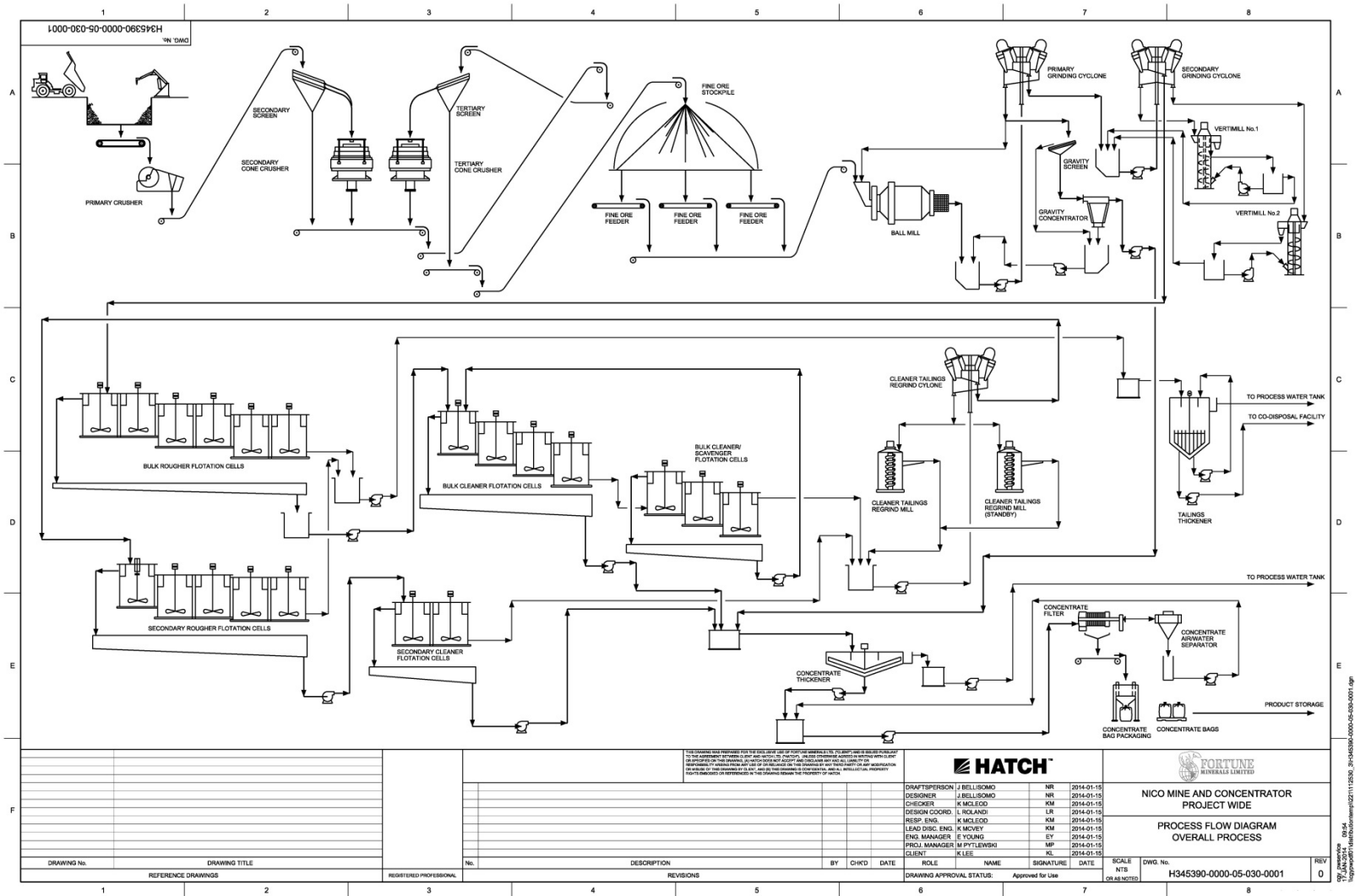
The bulk cleaner concentrate, the secondary cleaner concentrate and the gravity concentrate form the feed to the concentrate thickener, the underflow from which will be directed to a recessed plate type pressure filter, to reduce the moisture content of the concentrate to approximately 8%. The filtered concentrate will then be bagged for shipment.

The design production schedule for the processing plant at the Project site is shown in Table 1.5.

#### **1.5.6 Co-disposal Facility**

The Project will generate a total of approximately 32 Mt of tailings and 97.8 Mt of mine waste rock, including 5.5 Mt of low-grade material which, potentially, could be processed. Both of these waste streams will be disposed of together in a facility referred to as co-disposal facility (CDF).

**Figure 0.2**  
**NICO Process Flowsheet**





**Table 0.5**  
**NICO Project – Process Plant Production Schedule**

	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
MINE PRODUCTION																									
Total Ore Mined (thousand tonnes)	33,077			17	460	1,717	1,792	1,487	1,661	1,749	1,696	1,695	1,700	1,708	1,691	1,698	1,707	1,713	1,692	1,640	1,659	1,798	1,658	1,703	438
Contained Gold (thousand ounces)	1,100.3			0.1	2.9	47.0	65.9	20.3	16.3	29.4	66.7	67.9	96.4	87.1	28.9	30.2	28.0	29.0	37.3	46.5	72.1	154.1	39.9	106.1	28.3
Contained Cobalt (thousand pounds)	82,333			53	1,292	4,655	4,226	3,872	4,749	4,910	4,269	4,145	3,318	4,593	4,701	4,610	4,416	4,384	4,172	3,877	3,310	3,953	3,231	4,064	1,532
Contained Bismuth (thousand pounds)	102,082			27	1,142	6,172	4,703	3,699	5,169	6,613	7,215	6,473	5,876	4,656	5,538	6,539	6,785	6,376	5,481	5,033	4,457	3,192	4,638	2,106	194
Contained Copper (thousand pounds)	27,196			12	423	539	490	1,092	1,452	1,968	1,617	1,210	889	731	771	1,087	1,798	2,394	2,825	2,530	1,580	484	1,999	1,182	124
STOCKPILE MOVEMENTS																									
Opening Balance																									
Tonnes (thousand)					17	154	197	290	78	41	91	88	85	87	96	89	97	112	105	47	8	107	66	71	
Gold Grade (grams/tonne)					0.24	0.20	0.21	0.21	0.21	0.21	0.38	0.38	0.38	0.41	0.53	0.53	0.53	0.52	0.52	0.52	0.52	2.51	4.05	3.91	
Cobalt Grade (%)					0.14	0.13	0.13	0.12	0.12	0.12	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.10	0.16	0.16	
Bismuth Grade (%)					0.07	0.11	0.12	0.12	0.12	0.12	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.09	0.14	0.13	
Copper Grade (%)					0.03	0.04	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.02	0.02	
Contained Gold (thousand ounces)					0.1	1.0	1.3	1.9	0.5	0.3	1.1	1.1	1.0	1.1	1.6	1.5	1.5	1.6	1.9	1.8	0.8	0.1	8.6	8.6	8.9
Contained Cobalt (thousand pounds)					53	435	550	783	211	111	252	244	234	238	264	244	243	265	303	285	127	21	239	239	249
Contained Bismuth (thousand pounds)					27	367	501	770	208	109	299	290	278	284	310	287	286	320	375	352	157	25	201	201	207
Contained Copper (thousand pounds)					12	138	149	171	46	24	81	78	75	76	80	74	74	83	104	97	43	7	34	34	37
Annual Addition																									
Tonnes (thousand)	507				17	157	43	100			50		2	10		9	15							5	
Gold Grade (grams/tonne)					0.24	0.19	0.24	0.21			0.52		1.76	1.59		0.51	0.53							1.94	
Cobalt Grade (%)					0.14	0.13	0.12	0.11			0.13		0.09	0.12		0.12	0.12							0.11	
Bismuth Grade (%)					0.07	0.11	0.14	0.13			0.17		0.16	0.12		0.18	0.17							0.06	
Copper Grade (%)					0.03	0.04	0.01	0.01			0.05		0.02	0.02		0.05	0.06							0.03	
Contained Gold (thousand ounces)	12.7				0.1	1.0	0.3	0.7			0.8		0.1	0.5		0.1	0.3							0	
Contained Cobalt (thousand pounds)	1,322				53	442	115	254			141		3	26		22	38							11	
Contained Bismuth (thousand pounds)	1,331				27	391	134	287			190		6	27		34	55							6	
Contained Copper (thousand pounds)	317				12	145	11	28			56		1	4		9	21							3	
Annual Depletion																									
Tonnes (thousand)	(507)				(21)		(7)	(212)	(37)		(3)	(3)				(7)	(0.4)		(7)	(58)	(39)		(40)		(71)
Gold Grade (grams/tonne)					0.20	0.21	0.21	0.21	0.21		0.38	0.38	0.53	0.53		0.53	0.53		0.52	0.52	0.52	2.51	4.05	3.91	
Cobalt Grade (%)					0.13	0.13	0.13	0.12	0.12		0.13	0.13	0.13	0.12	0.12	0.12	0.12		0.12	0.12	0.12	0.10	0.16	0.16	
Bismuth Grade (%)					0.11	0.12	0.12	0.12	0.12		0.15	0.15	0.15	0.15	0.15	0.15	0.15		0.15	0.15	0.15	0.09	0.14	0.13	
Copper Grade (%)					0.04	0.03	0.03	0.03	0.03		0.04	0.04	0.04	0.04	0.04	0.04	0.04		0.04	0.04	0.04	0.01	0.02	0.02	
Contained Gold (thousand ounces)	(12.7)				(0.1)		(0.05)	(1.4)	(0.2)		(0.0)	(0.0)				(0.1)	(0.0)		(0.1)	(1.0)	(0.7)		(8.9)		
Contained Cobalt (thousand pounds)	(1,323)				(60)		(20)	(572)	(100)		(8)	(10)				(20)	(1)		(18)	(157)	(107)		(250)		
Contained Bismuth (thousand pounds)	(1,332)				(50)		(19)	(562)	(98)		(9)	(11)				(24)	(1)		(23)	(195)	(132)		(208)		
Contained Copper (thousand pounds)	(317)				(19)		(6)	(125)	(22)		(2)	(3)				(6)	(0)		(6)	(54)	(36)				(37)
Closing Balance																									
Tonnes (thousand)				17	154	197	290	78	41	91	88	85	87	96	89	89	97	112	105	47	8	107	66	71	0
Gold Grade (grams/tonne)				0.24	0.20	0.21	0.21	0.21	0.21	0.38	0.38	0.38	0.41	0.53	0.53	0.53	0.52	0.52	0.52	0.52	2.51	4.05	3.91	0	
Cobalt Grade (%)				0.14	0.13	0.13	0.12	0.12	0.12	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.10	0.16	0.16	0	
Bismuth Grade (%)				0.07	0.11	0.12	0.12	0.12	0.12	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.09	0.14	0.13	0	
Copper Grade (%)				0.03	0.04	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.02	0.02	0	
Contained Gold (thousand ounces)				0.1	1.0	1.3	1.9	0.5	0.3	1.1	1.1	1.0	1.1	1.6	1.5	1.5	1.6	1.9	1.8	0.8	0.1	8.6	8.6	8.9	0
Contained Cobalt (thousand pounds)				53	435	550	783	211	111	252	244	234	238	264	244	243	265	303	285	127	21	239	239	249	(1)
Contained Bismuth (thousand pounds)				27	367	501	770	208	109	299	290	278	284	310	287	286	320	375	352	157	25	201	201	207	0
Contained Copper (thousand pounds)				12	138	149	171	46	24	81	78	75	76	80	74	74	83	104	97	43	7	34	34	37	0
MILL PRODUCTION SCHEDULE																									
Ore Milled (thousand tonnes)	33,078				324	1,673	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	509	
Gold Grade (grams/tonne)	1.03				0.20	0.87	1.20	0.40	0.30	0.52	1.22	1.24	1.76	1.59	0.53	0.55	0.51	0.53	0.68	0.87	1.33	2.67	0.73	1.94	2.27
Cobalt Grade (%)	0.11				0.13	0.12	0.11	0.12	0.13	0.13	0.11	0.11	0.09	0.12	0.13	0.12	0.12	0.12	0.11	0.11	0.09	0.10	0.09	0.11	0.16
Bismuth Grade (%)	0.14				0.11	0.16	0.12	0.11	0.14	0.17	0.19	0.17	0.16	0.12	0.15	0.17	0.18	0.17	0.15	0.14	0.12	0.08	0.12	0.06	0.04
Copper Grade (%)	0.04				0.04	0.01	0.01	0.03	0.04	0.05	0.04	0.03	0.02	0.02	0.02	0.03	0.05	0.06	0.08	0.07	0.04	0.01	0.05	0.03	0.01
Contained Gold (thousand ounces)	1,100.3				2.0	46.7	65.3	21.7	16.5	28.5	66.7	68.0	96.3	86.6	29.1	30.2	27.8	28.7	37.4	47.5	72.8	145.6	39.9	105.8	37.2
Contained Cobalt (thousand pounds)	82,334				910	4,541	3,992	4,444	4,849	4,770	4,277	4,155	3,314	4,567	4,721	4,611	4,394	4,346	4,191	4,035	3,417	3,735	3,231	4,053	1,782
Contained Bismuth (thousand pounds)	102,083				801	6,038	4,435	4,261	5,267	6,424	7,224	6,485	5,871	4,629	5,561	6,540	6,750	6,321	5,504	5,228	4,588	3,016	4,638	2,100	402
Contained Copper (thousand pounds)	27,196				297	528	468	1,217	1,474	1,911	1,619	1,213	888	726	777	1,087	1,789	2,374	2,831	2,584	1,616	458	1,999	1,179	161
Gold Recovery (%)	78.2				67.3	81.6	83.4	68.5	68.0	69.3	77.3	72.4	80.6	79.5	69.3	69.9	69.2	69.3	70.0	74.3	77.8	85.0	74.5	82.3	83.2
Cobalt Recovery (%)	90.9				90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
Bismuth Recovery (%)	82.1				82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
Copper Recovery (%)	89.1				89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
Recovered Gold (thousand ounces)	860.3				1.4	38.1	54.4	14.8	11.2	19.8	51.5	52.6	77.6	68.9	20.1	21.1	19.3	19.9	26.2	35.3	56.6	123.8	29.7	87.0	30.9
Recovered Cobalt (thousand pounds)	74,839				827	4,127	3,629	4,039	4,408	4,335	3,888	3,776	3,013	4,151	4,291	4,191	3,994	3,950	3,809	3,668	3,106	3,395	2,937	3,684	1,620
Recovered Bismuth (thousand pounds)	83,808				658	4,957	3,641	3,498	4,324	5,274	5,931	5,324	4,820	3,800	4,566	5,369	5,542	5,190	4,519	4,292	3,767	2,476	3,808	1,724	330
Recovered Copper (thousand pounds)	24,231				265	470	417	1,084	1,313	1,703	1,443	1,080	791	647	692	969	1,594	2,115	2,522	2,302	1,440	408	1,781	1,051	143
Concentrate Produced (thousand dry tonnes)	1,062.3				10.4	53.7	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	16.3
Gold Grade of Concentrate (grams/tonne)	25.19				4.09	22.06	31.04	8.47	6.41	11.27	29.39														

Fortune retained Golder to carry out the conceptual design of the CDF, as input to the Jacobs FEED study. Golder had previously carried out a trade-off study for the management of tailings and mine waste rock, the result of which was the selection of the CDF system and a pre-feasibility study level design and cost estimate, at an assessed accuracy of plus or minus 25%.

The advantages of the co-disposal of waste are:

- Minimization of the footprint of the waste disposal facilities.
- Minimization of the potential for acid generation and metal leaching.
- Maximization of water conservation.
- Minimization of water treatment requirements.
- The ability to undertake progressive reclamation.

The CDF will be contained by a perimeter dyke comprising a prism of mine rock at least 25 metres thick. The perimeter dyke will be raised periodically in 5-metre lifts, using the upstream construction method. Inside the perimeter dyke, the CDF will comprise alternating layers of mine waste rock and tailings, about 5 metres thick. The perimeter dyke will be free draining but it will retain tailings particles. Five seepage collection ponds (SCP) will be constructed downstream of the CDF at topographically low areas, to intercept any tailings water that may seep through the perimeter dyke. Water collected in the SCPs will be pumped to the process plant for re-use.

The tailings layers will be created by constructing a series of cells. A 5-metre thick layer of waste rock will be pushed over each tailings cell as soon as it is complete. The permanent cover system will be designed to prevent erosion and potential transport of tailings solids, to reduce infiltration and to prevent contact between tailings and surface runoff. The cover system will include a capillary break to reduce metal uptake by vegetation in the cover and, therefore, ingestion of metals from the vegetation by wildlife.

### **1.5.7 Hydrometallurgical Processing Plant**

The bulk gold-cobalt-bismuth-copper concentrate produced at the Project site in the NWT will require further processing at the SMPP, principally by hydrometallurgical techniques, to produce saleable gold, cobalt, bismuth and copper products. The bulk concentrate will be transported by road and rail to a dedicated rail siding on the SMPP property.

At the SMPP, the bulk concentrate will be re-ground to minus 14 microns and subjected to secondary flotation to produce separate auriferous cobalt and bismuth concentrates. The bismuth concentrate will then be treated by a ferric chloride leach. The pregnant solution will be subjected to electrowinning to produce bismuth cathode, which will then be smelted, with a flux, to produce bismuth ingots of 99.995% purity. It is planned also to produce bismuth needles and to convert a high proportion of the bismuth ingots to bismuth oxide.

The bismuth residue will be combined with the cobalt concentrate and subjected to a pressure acid leach in an autoclave. Iron, arsenic and copper will then be precipitated sequentially with lime and sodium carbonate. The copper precipitate will be re-leached, and then re-precipitated as copper cement, which will be sold to a third party smelter for conversion into copper metal.

Cobalt pregnant solution produced by the pressure acid leach, after the precipitation of iron and arsenic, will be processed by solvent extraction, using Cyanex 272, in order to remove metallic impurities by sequential stripping, and leave a pure cobalt sulphate solution. This solution will then be evaporated and subjected to a three-stage crystallization process to produce cobalt sulphate heptahydrate, containing 20.9% cobalt. Cobalt carbonate, cobalt oxide, cobalt nitrate and cobalt chloride can also be produced from the same solution, should market conditions so dictate.

The tailing from the cobalt concentrate will be leached with cyanide, for the recovery of gold, as doré bars.

The design production schedule for the hydrometallurgical processing facility in Saskatchewan is summarized in Table 1.6.

Solid waste residue from the SMPP will consist primarily of two streams:

- Residue from the cyanide leach used to recover gold, which will be produced at a design rate of 9 tonnes per hour.
- Iron-arsenic precipitate, and gypsum residue, from the precipitation circuit following the autoclave, which will be produced at a design rate of 5.7 tonnes per hour. The arsenic will present as scorodite, a relatively stable iron-arsenic compound.

These solid waste streams will be permanently entombed in a dedicated permanent residue storage facility (PRSF), located on the SMPP property. The PRSF will be constructed as a series of dyked cells, above the groundwater table. Each cell will have a dual containment liner and a leak detection system. As soon as possible after each cell is filled with residue, an engineered cover will be placed over it, to limit water and oxygen ingress and to support vegetation. The site selected for the PRSF is underlain by 9 to 18 metres of low conductivity till, providing a high level of secondary containment to prevent any contamination of the Dalmeny Aquifer below.

The principal liquid residue from the SMPP will be a high chloride brine from the bismuth recovery process. This solution will be injected, through a deep well, into the Souris River Formation, at a depth below surface of approximately 800 metres. The design rate of production of this waste solution is 11 cubic metres per hour.

Table 0.6  
Hydrometallurgical Plant Production Schedule

	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
MILL PRODUCTION																									
Concentrate Shipped (thousand dry tonnes)	1,062.3				10.4	53.7	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	16.3
Moisture Content of Concentrate (%)	8.7				8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
Concentrate Shipped (thousand wet tonnes)	1,154.6				11.3	58.4	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	17.8
Gold Grade of Concentrate (grams/tonne)	25.19				4.09	22.06	31.04	8.47	6.41	11.27	29.39	30.00	44.24	39.28	11.49	12.02	10.98	11.35	14.92	20.12	32.29	70.58	16.96	49.62	58.84
Cobalt Grade of Concentrate (%)	3.20				3.61	3.48	3.02	3.36	3.67	3.61	3.23	3.14	2.51	3.45	3.57	3.49	3.32	3.29	3.17	3.05	2.58	2.82	2.44	3.06	4.50
Bismuth Grade of Concentrate (%)	3.58				2.87	4.18	3.03	2.91	3.60	4.39	4.93	4.43	4.01	3.16	3.80	4.47	4.61	4.32	3.76	3.57	3.13	2.06	3.17	1.43	0.92
Copper Grade of Concentrate (%)	1.03				1.15	0.40	0.35	0.90	1.09	1.42	1.20	0.90	0.66	0.54	0.58	0.81	1.33	1.76	2.10	1.91	1.20	0.34	1.48	0.87	0.40
Gold in Concentrate (thousand ounces)	860.3				1.4	38.1	54.4	14.8	11.2	19.8	51.5	52.6	77.6	68.9	20.1	21.1	19.3	19.9	26.2	35.3	56.6	123.8	29.7	87.0	30.9
Cobalt in Concentrate (thousand pounds)	74,839				827	4,127	3,629	4,039	4,408	4,335	3,888	3,776	3,013	4,151	4,291	4,191	3,994	3,950	3,809	3,668	3,106	3,395	2,937	3,684	1,620
Bismuth in Concentrate (thousand pounds)	83,808				658	4,957	3,642	3,498	4,324	5,274	5,931	5,324	4,820	3,800	4,566	5,369	5,542	5,190	4,519	4,292	3,767	2,476	3,870	1,724	267
Copper in Concentrate (thousand pounds)	24,231				265	470	417	1,084	1,313	1,703	1,443	1,080	791	647	692	969	1,594	2,115	2,522	2,302	1,440	408	1,781	1,051	143
HYDROMETALLURGICAL PLANT PRODUCTION																									
Concentrate Treated (thousand dry tonnes)	1,062.3				10.4	53.7	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	16.3
Cobalt Concentrate Produced (thousand dry tonnes)	979.1				9.6	49.5	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	15.1
Gold Recovery to Cobalt Concentrate (%)	21.3				21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
Cobalt Recovery to Cobalt Concentrate (%)	97.8				97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
Bismuth Recovery to Cobalt Concentrate (%)	11.1				11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
Copper Recovery to Cobalt Concentrate (%)	39.5				39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
Gold in Cobalt Concentrate (thousand ounces)	183.2				0.3	8.1	11.6	3.2	2.4	4.2	11.0	11.2	16.5	14.7	4.3	4.5	4.1	4.2	5.6	7.5	12.1	26.4	6.3	18.5	6.6
Cobalt in Cobalt Concentrate (thousand pounds)	73,193				808.7	4,036.4	3,549.2	3,950.5	4,310.7	4,240.0	3,802.2	3,693.4	2,946.5	4,059.6	4,196.8	4,099.2	3,906.1	3,863.5	3,725.5	3,586.8	3,037.2	3,320.6	2,872.4	3,603.2	1,584.3
Bismuth in Cobalt Concentrate (thousand pounds)	9,303				73.0	550.2	404.2	388.2	480.0	585.4	658.3	591.0	535.0	421.8	506.8	596.0	615.1	576.1	501.6	476.4	418.1	274.8	429.6	191.4	29.7
Copper in Cobalt Concentrate (thousand pounds)	9,583				104.7	186.0	165.0	428.7	519.3	673.6	570.6	427.3	313.0	256.0	273.8	383.1	630.4	836.4	997.5	910.5	569.6	161.2	704.5	415.5	56.6
Recovery of Gold from Cobalt Concentrate (%)	94.7				94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
Recovery of Cobalt from Cobalt Concentrate (%)	92.9				92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9
Recovery of Bismuth from Cobalt Concentrate (%)	0				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery of Copper from Cobalt Concentrate (%)	46.2				46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2
Recovered Gold in Doré from Cobalt Concentrate (thousand ounces)	173.5				0.3	7.7	11.0	3.0	2.3	4.0	10.4	10.6	15.6	13.9	4.1	4.3	3.9	4.0	5.3	7.1	11.4	25.0	6.0	17.5	6.2
Recovered Cobalt from Cobalt Concentrate (thousand pounds)	67,996				751.3	3,749.8	3,297.2	3,670.0	4,004.6	3,938.9	3,532.3	3,431.2	2,737.3	3,771.3	3,898.8	3,808.1	3,628.8	3,589.2	3,461.0	3,332.2	2,821.6	3,084.9	2,668.5	3,347.4	1,471.8
Recovered Bismuth from Cobalt Concentrate (thousand pounds)	0				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovered Copper from Cobalt Concentrate (thousand pounds)	4,427				48.4	85.9	76.2	198.1	239.9	311.2	263.6	197.4	144.6	118.3	126.5	177.0	291.3	386.4	460.9	420.6	263.2	74.5	325.5	192.0	26.2
Bismuth Concentrate Produced (thousand dry tonnes)	83.2				0.8	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	1.3
Gold Recovery to Bismuth Concentrate (%)	78.7				78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
Cobalt Recovery to Bismuth Concentrate (%)	2.2				2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Bismuth Recovery to Bismuth Concentrate (%)	88.9				88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
Copper Recovery to Bismuth Concentrate (%)	60.5				60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5
Gold in Bismuth Concentrate (thousand ounces)	676.8				1.1	30.0	42.8	11.7	8.8	15.5	40.6	41.4	61.0	54.2	15.8	16.6	15.1	15.7	20.6	27.8	44.5	97.4	23.4	68.5	24.3
Cobalt in Bismuth Concentrate (thousand pounds)	1,646				18.2	90.8	79.8	88.9	97.0	95.4	85.5	83.1	66.3	91.3	94.4	92.2	87.9	86.9	83.8	80.7	68.3	74.7	64.6	81.1	35.6
Bismuth in Bismuth Concentrate (thousand pounds)	74,506				584.8	4,406.6	3,237.3	3,109.3	3,844.1	4,688.4	5,272.4	4,733.0	4,284.9	3,378.6	4,059.0	4,773.2	4,926.7	4,613.7	4,017.2	3,815.9	3,348.8	2,201.2	3,440.3	1,532.7	237.6
Copper in Bismuth Concentrate (thousand pounds)	14,648				160.0	284.3	252.3	655.3	793.7	1,029.5	872.1	653.1	478.4	391.2	418.5	585.5	963.6	1,278.4	1,524.7	1,391.6	870.6	246.4	1,076.8	635.0	86.5
Recovery of Gold from Bismuth Concentrate (%)	94.7				94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
Recovery of Cobalt from Bismuth Concentrate (%)	92.9				92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9			

<b>Metal</b>	<b>Metal Price (US\$)</b>	<b>Exchange Rate (US\$/C\$)</b>	<b>Metal Price (C\$)</b>
Gold (per oz)	1,350	0.88	1,534
Cobalt (per lb)	16.00	0.88	18.18
Cobalt in sulphate (per lb)	19.04	0.88	21.64
Bismuth ingot (per lb)	10.50	0.88	11.93
Bismuth needles (per lb)	11.00	0.88	12.50
Bismuth in oxide (per lb)	14.00	0.88	15.91
Bismuth (per lb, average)	12.64	0.88	14.36
Copper as cathode (per lb)	3.25	0.88	3.69
Copper as cement (per lb)	2.38	0.88	2.70

Fortune will be responsible for the marketing of all products. Fortune's cost of marketing is assessed as 1% of the gross revenue received from the sale of cobalt, bismuth and copper.

The financial model makes provision for the costs of transporting and refining the gold doré. The estimated cost of smelting and refining the copper cement to be produced at the SMPP has been included in the financial model by reducing the net price received from US\$3.25 per pound for cathode, to US\$2.38 per pound for copper contained in cement. The price of bismuth is a weighted average of US\$10.50 per pound for ingot (20%), US\$11.00 per pound for needles (20%) and US\$14.00 per pound for bismuth contained in oxide, less an allowance of US\$0.10 per pound for the additional processing required (60%).

### **1.5.8 Cost Structure**

The estimates of capital expenditure and operating cost for the NICO Project in the NWT have been developed by Procon Mining and Tunnelling Ltd. (Procon), based on the work of Fortune and third party engineering companies, consultants and contractors which were responsible for developing the estimates for the scope of work in their respective areas. The estimates are based on budgetary quotations received from potential vendors for the major items, and factored estimates or database information for other items. The capital expenditure and operating cost estimates for the Project site have an assessed level of accuracy of plus or minus 15%.

The estimates of capital expenditure for the SMPP have also been developed by Procon, to an assessed level of accuracy of plus or minus 15%.

The estimates of operating cost for the SMPP have been based on an addendum to the Jacobs FEED study which incorporated the production of cobalt sulphate, rather than cobalt cathode, as originally envisaged. The Jacobs estimates have been subsequently updated by Fortune. The estimates of operating cost for the SMPP have an assessed level of accuracy of plus or minus 15% for the basic plant, but minus 10%, plus 25% for the cobalt sulphate circuit.

#### **1.5.8.1 Capital Expenditures**

The estimated pre-production capital expenditures for the construction of the NICO Project in the NWT are estimated at C\$346.5 million, as summarized in Table 1.8.

**Table 0.7**  
**Summary of NICO Project Estimated Pre-Production Capital Costs**

<b>Cost Component</b>	<b>Estimated Cost (C\$ million)</b>
Open pit mining	52.4
Underground mining	-
Process plant and related infrastructure	170.0
Indirect costs	88.3
Engineering, procurement and construction management (EPCM)	39.1
Other costs	(3.3)
<b>Total pre-production capital</b>	<b>346.5</b>

An additional C\$41.4 million has been provided for sustaining capital expenditures to be incurred throughout the life of the Project.

The pre-production capital expenditures for construction of the SMPP are estimated at C\$242.5 million, as summarized in Table 1.9.

**Table 0.8**  
**Summary of SMPP Estimated Pre-Production Capital Cost**

<b>Cost Component</b>	<b>Estimated Cost (C\$ million)</b>
Labour	45.9
Permanent material	31.4
Construction material	5.9
Process equipment	57.9
Equipment purchases and operation	6.7
Sub-contractors and design	17.2
<b>Sub-Total</b>	<b>165.0</b>
Indirect costs	77.5
<b>Total</b>	<b>242.5</b>

An additional C\$16.4 million has been included for subsequent sustaining capital expenditures to be incurred throughout the operating life of the SMPP.

The total estimated pre-production and sustaining capital expenditures for the NICO Project are summarized in Table 1.10. These estimates are expressed in constant Canadian dollars of fourth quarter, 2013 value.

**Table 0.9**  
**Total Estimated Capital Expenditures**

<b>Location</b>	<b>Pre-Production Capital (C\$ million)</b>			<b>Sustaining (C\$ million)</b>	<b>Total Capital (C\$ million)</b>
	<b>Direct Costs</b>	<b>Indirect Costs</b>	<b>Total</b>		
NWT	222.4	124.1	346.5	41.4	387.9
SMPP	165.0	77.5	242.5	16.4	258.9
<b>Total</b>	<b>387.4</b>	<b>201.6</b>	<b>589.0</b>	<b>57.8</b>	<b>646.8</b>

#### 1.5.8.2 Operating Costs

The estimated life-of-mine (LOM) operating costs for the NICO Project in the NWT are summarized in Table 1.11. The average estimated cost is C\$39.70 per tonne of ore milled. These costs are expressed in constant Canadian dollars of fourth quarter, 2013 value.

**Table 0.10**  
**Summary of Project Site Operating Cost Estimate**

Cost Centre	Life-of-Mine Cost (C\$ million)	Average Annual Cost (C\$ million)	Average Unit Cost (C\$/t total ore mined)
Open Pit Mining	271.2	13.6	8.20
Underground Mining	52.7	2.6	1.59
Processing (NWT)	422.4	21.1	12.77
Shared Services	355.2	17.8	10.74
Concentrate Transport	212.1	10.6	6.41
<b>Total</b>	<b>1,313.6</b>	<b>65.7</b>	<b>39.71</b>

The estimated LOM operating costs for the SMPP are estimated at C\$599 million, or C\$564 per tonne of bulk concentrate processed, distributed approximately as summarized in Table 1.12.

**Table 0.11**  
**Summary of SMPP Operating Cost Estimate**

Item	Life-of-Mine Cost (C\$ million)	Average Annual Cost (C\$ million)	Average Unit Cost (C\$/t concentrate)
Labour	169	8.5	159
Power	73	3.7	69
Reagents	209	10.5	197
Maintenance Supplies	82	4.1	77
Infrastructure	11	0.5	10
Other	55	2.8	52
<b>Total</b>	<b>599</b>	<b>30</b>	<b>564</b>

The total cost of operating the SMPP is equivalent to C\$18.11 per tonne of ore milled at the Project site.

Fortune has also performed an analysis of the average cash cost of production per ounce of gold equivalent and per pound of cobalt equivalent, with metal equivalents being calculated on the basis of the revenues estimated to be received for each metal, thereby taking into account both the ratio of the prices of each metal and the differences in metallurgical recovery. A further analysis was undertaken of the cash operating costs of producing gold, cobalt and bismuth, after by-product credits for each of the other metals. The results of these analyses are summarized in Table 1.13.

**Table 0.12**  
**Unit Cost of Metal Equivalents and Net of By-Product Credits**

Unit Cost Measure	Units	Average Unit Cost
Per equivalent ounce of gold	US\$/oz	673.54
Per equivalent pound of cobalt	US\$/lb	9.50
Per ounce of gold, net of by-product credits	US\$/oz	(702.12)
Per pound of cobalt, net of by-product credits	US\$/lb	(5.19)
Per pound of bismuth, net of by-product credits	US\$/lb	(10.18)

### 1.5.9 Financial Evaluation

The overall results of the base case financial evaluation of the NICO Project have been summarized in Table 1.1. The discounted cash flow evaluation has been based on the production schedules, metal prices, capital expenditures and operating costs summarized above and discussed in detail in the body of this report, together with the following additional considerations:

- Provision has been made for the payment of NWT mining royalty, Canadian federal income tax, NWT income tax and Saskatchewan income tax. Fortune reports that it will be exempt from Saskatchewan income tax for five years, once taxable in the Province, based on legislation introduced by the Province to attract industrial investment.
- Provisions have been included for Fortune's corporate overhead costs and for minor changes in working capital.
- An annual allowance has been included for security deposits to fund final reclamation and closure.
- The Project capital expenditure is assumed to be financed 30% by equity and 70% by debt.

Details of the projected annual cash flows are provided Table 1.14.

The overall economics of the NICO Project are more sensitive to changes in the factors that affect revenue, than they are to changes in capital expenditures or operating costs. Sensitivity analyses have been conducted to determine the effect on net present value and internal rate of return of variations from the base level prices of the two principal co-products, gold and cobalt. The results are summarized in Table 1.15. These sensitivity analyses also serve as a proxy for variations in ore grade, metallurgical recovery or metal production, for either gold or cobalt.



Table 0.13  
NICO Project Cash Flow

	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
PRODUCTION DATA																									
Open Pit Ore Mined (thousand tonnes)	32,500			17	460	1,443	1,488	1,487	1,661	1,749	1,696	1,695	1,700	1,708	1,691	1,698	1,707	1,713	1,692	1,640	1,659	1,798	1,658	1,703	438
Open Pit Waste Mined (thousand tonnes)	97,810			4,917	11,009	5,377	4,462	7,136	3,504	4,081	7,463	7,375	6,292	4,543	3,779	3,765	3,846	2,839	2,853	3,313	2,653	1,578	4,291	2,331	403
Underground Ore Mined (thousand tonnes)	577					273	304	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reclaimed from Stockpile (thousand tonnes)	507				21	0	7	212	37	0	3	3	0	0	7	0	0	0	7	58	39	0	40	0	71
Ore Milled (thousand tonnes)	33,078				324	1,673	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	1,698	509
Concentrate Treated (thousand dry tonnes)	1,062.3				10.4	53.7	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	16.3
Concentrate Treated (thousand wet tonnes)	1,154.6				11.3	58.4	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	17.8
Gold Sold (thousand ounces)	814.4				1.2	35.3	52.5	14.0	10.7	18.6	48.6	49.8	73.3	65.3	19.5	20.0	18.2	18.8	24.7	33.3	53.4	116.7	31.2	82.0	27.4
Cobalt Sold (thousand pounds)	69,526				256.1	4,193.7	3,318.6	3,744.6	4,075.2	4,030.3	3,634.4	3,515.8	2,837.0	3,801.3	3,976.7	3,898.9	3,720.0	3,672.9	3,546.2	3,415.3	2,913.4	3,141.3	2,822.0	3,390.5	1,621.5
Bismuth Sold (thousand pounds)	73,656					4,623.1	3,216.7	3,106.7	3,741.8	4,564.5	5,161.1	4,718.2	4,273.1	3,413.7	3,965.5	4,660.3	4,852.9	4,584.1	4,019.8	3,792.8	3,347.9	2,268.6	3,311.7	1,657.4	376.5
Copper Sold (thousand pounds)	11,195					316.0	191.4	462.1	594.0	764.9	677.7	519.7	383.1	308.6	318.6	433.0	701.7	945.7	1,140.3	1,072.7	711.4	248.0	761.8	517.0	127.3
METAL PRICES																									
Gold Price (US\$/ounce)				1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
Cobalt Price (US\$/pound)				16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Price of Cobalt in Sulphate (US\$/pound, plus 19%)				19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04
Bismuth Price (US\$/pound)				12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64
Copper Price (US\$/pound)				2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
Exchange Rate (US\$/C\$)				0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Gold Price (C\$/ounce)				1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534	1,534
Cobalt Price (C\$/pound)				18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18	18.18
Price of Cobalt in Sulphate (C\$/pound)				21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64	21.64
Bismuth Price (C\$/pound)				14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36	14.36
Copper Price (C\$/pound)				2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70
REVENUE AND EXPENDITURE (C\$ thousand)																									
Gross Revenue from Gold Sales	1,249,358				1,787	54,088	80,474	21,482	16,369	28,599	74,488	76,415	112,403	100,164	29,871	30,626	27,996	28,917	37,924	51,138	81,996	178,992	47,866	125,746	42,018
Gross Revenue from Cobalt Sulphate Sales	1,504,283				5,540	90,737	71,803	81,020	88,172	87,202	78,634	76,069	61,383	82,245	86,604	84,357	80,488	79,468	76,728	73,894	63,035	67,966	61,057	73,359	35,084
Gross Revenue from Bismuth Sales	1,057,972				0	66,404	46,204	44,623	53,746	65,563	74,132	67,770	61,377	49,033	56,959	66,939	69,705	65,844	57,739	54,478	48,088	32,585	47,568	23,806	5,408
Gross Revenue from Copper Sales	30,214				0	853	517	1,247	1,603	2,064	1,829	1,403	1,034	833	860	1,169	1,894	2,552	3,078	2,895	1,920	669	2,056	1,395	344
Gross Sales Revenue	3,841,828				7,327	212,082	198,997	148,373	159,889	183,428	229,085	221,658	236,197	232,276	173,730	183,091	180,083	176,782	175,468	182,405	195,039	280,213	158,547	224,306	82,854
Concentrate Transportation	(212,099)				(2,067)	(10,729)	(10,895)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(10,887)	(3,264)
Gold Refining	(7,492)				(12)	(327)	(476)	(145)	(116)	(184)	(442)	(453)	(655)	(586)	(192)	(196)	(181)	(186)	(237)	(311)	(484)	(1,028)	(293)	(730)	(260)
Marketing Expense	(25,925)				(55)	(1,580)	(1,185)	(1,269)	(1,435)	(1,548)	(1,546)	(1,452)	(1,238)	(1,321)	(1,439)	(1,525)	(1,479)	(1,521)	(1,375)	(1,313)	(1,130)	(1,012)	(1,107)	(986)	(408)
Net Smelter Return	3,596,312				5,192	199,445	186,441	136,072	147,451	170,797	216,202	208,865	223,417	219,473	161,213	170,484	167,483	164,222	162,969	169,894	182,529	267,285	146,250	211,704	78,922
Open Pit Mining	(271,154)				(171)	(11,730)	(12,530)	(12,442)	(14,616)	(14,845)	(11,821)	(11,990)	(12,241)	(15,228)	(14,893)	(14,832)	(14,837)	(15,329)	(15,324)	(14,040)	(13,734)	(14,975)	(16,066)	(12,518)	(6,992)
Underground Mining	(52,742)					(24,970)	(27,772)																		
Milling	(422,454)					(21,265)	(21,188)	(21,225)	(21,207)	(21,207)	(21,207)	(21,244)	(21,207)	(21,207)	(21,207)	(21,207)	(21,207)	(21,207)	(21,207)	(21,244)	(21,207)	(21,207)	(21,207)	(21,244)	(16,444)
Shared Services and Camp	(355,176)					(18,340)	(18,222)	(18,271)	(18,251)	(18,200)	(17,672)	(17,719)	(17,672)	(17,672)	(17,672)	(17,672)	(17,672)	(17,672)	(17,672)	(17,719)	(17,672)	(17,672)	(17,672)	(17,719)	(12,832)
SMPP Operating Costs	(599,123)					(5,864)	(30,307)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,763)	(30,761)	(9,220)
Other Processing Charges	(4,025)				(77)	(147)	(256)	(201)	(201)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)	(181)
Total Operating Cost	(1,704,674)			(70)	(187)	(12,408)	(106,868)	(110,676)	(82,902)	(85,018)	(85,196)	(81,644)	(81,897)	(82,064)	(84,716)	(84,739)	(84,660)	(85,152)	(85,147)	(83,947)	(83,557)	(84,798)	(85,889)	(82,423)	(45,669)
Operating Profit	1,891,638			(70)	(1																				

**Table 0.14**  
**Sensitivity Analyses**

<b>Gold Price (US\$/oz)</b>	<b>1,200</b>	<b>1,350</b>	<b>1,500</b>
Pre-tax NPV, 7% (C\$ million)	196	<b>254</b>	312
Pre-tax IRR (%)	13.9	<b>15.6</b>	17.2
Post-tax NPV, 7%(C\$ million)	168	<b>224</b>	281
Post-tax IRR (%)	13.3	<b>15.1</b>	16.7
<b>Cobalt Price (US\$/lb)</b>	<b>13.00</b>	<b>16.00</b>	<b>19.00</b>
Pre-tax NPV, 7% (C\$ million)	124	<b>254</b>	383
Pre-tax IRR (%)	11.4	<b>15.6</b>	19.4
Post-tax NPV, 7% (C\$ million)	98	<b>224</b>	350
Post-tax IRR (%)	10.7	<b>15.1</b>	19.0

A separate sensitivity analysis has also been conducted, using the base case production and cost estimates, but with a series of cyclical metal prices fluctuating over the range shown in Table 1.16, and over a recurring six-year cycle.

**Table 0.15**  
**Cyclical Metal Prices**

<b>Metal</b>	<b>Price Range</b>	
	<b>Low</b>	<b>High</b>
Gold (US\$/oz)	1,200	1,900
Cobalt (US\$/lb)	12.00	30.00
Bismuth (US\$/lb)	7.00	19.00
Copper (US\$/lb)	3.00	4.50

Under this sensitivity analysis, the NICO Project would be expected to yield an after-tax, undiscounted life-of-mine cash flow of C\$1.44 billion, an after-tax net present value of C\$505 million at a discount rate of 7% per year and an after-tax internal rate of return of 23.2% per year. The equivalent pre-tax indices are a present value of C\$543 million and an internal rate of return of 23.6% per year.

## **1.6 CONCLUSIONS AND RECOMMENDATIONS**

The principal conclusions reached on the basis of the discussion contained in this report are that the NICO Project is technically feasible and also that, at the metal prices and exchange rates used in the financial analysis, the Project is economically viable.

The principal components of the proposed Project that are not yet at the Feasibility Study level of definition are:

- The operating cost estimates for the SMPP, which remain based on the original FEED study and have an assessed level of accuracy of minus 10%, plus 25% for the cobalt sulphate production circuit.
- A detailed analysis of the future demand for bismuth oxide, which is projected to constitute 60% of the bismuth produced, or an average of approximately 1,000 tonnes per year of bismuth oxide.

It is recommended that studies be advanced on both of these fronts, as a matter of priority.

The principal matters outstanding before construction at the Project site in the NWT can begin are obtaining the permits necessary to do so and arranging financing for the Project. Since all materials and equipment required for the 2015 early works program must be delivered to site over the winter road, prior to about April, 2015, failure to

secure financing by approximately September, 2014 will jeopardize that program and potentially set the Project back by a full year.

The procedure for obtaining permits for the site in the NWT is well advanced and, to a large extent, now in the hands of the regulatory authorities. It is recommended, however, that consultation with all stakeholders continue unabated, since the public may still have the right to comment on the permit applications.

Completion of the all-weather road from Behchokö to Whati early in 2016 is critical to maintaining the Project construction schedule. Negotiation of a definitive agreement between the NWT and Tłıchǫ governments, and Fortune if necessary, to achieve this schedule is also regarded as a matter of priority. The terms under which electric power will be supplied to the Project site from the Snare Hydroelectric Complex remain to be finalized.

An Impact and Benefits Agreement with the Tłıchǫ government may involve some added cost for the Project. It is recommended that the financial terms of that agreement be negotiated as soon as possible.

### ***Arctos Anthracite Coal Project***

Set forth below are the summary, mining methods, project infrastructure, capital and operating costs and economic analysis sections of a technical report entitled “*Technical Report on the 2012 Update of the Arctos Anthracite Project Mine Feasibility Study*” dated November 28, 2012 (the “2012 Arctos Report”). Edward H. Minnes, P.E., of Marston is the Qualified Person responsible for the preparation of the 2012 Arctos Report in compliance with NI 43-101. The 2012 Arctos Report was filed on SEDAR on November 29, 2012 and is available at [www.sedar.com](http://www.sedar.com). The following information is of a summary nature only and reference is made to the detailed disclosure contained in the 2012 Arctos Report, which is incorporated herein by reference.

### **EXTRACTS FROM TECHNICAL REPORT ON THE 2012 UPDATE OF THE ARCTOS ANTHRACITE PROJECT MINE FEASIBILITY STUDY**

#### **Summary**

The Arctos Anthracite Property (Property), formerly known as the Mount Klappan Coal Project, comprises approximately 16,411 hectares (ha) located in northwestern British Columbia that are licensed for coal exploration and development by Arctos Anthracite Joint Venture (Arctos). Gulf Canada Resources Ltd. (Gulf) originally licensed and explored the Property during the 1980s and commenced development of the Arctos Anthracite Project (Project) to explore for and produce anthracite from the Property. Conoco Canada Resources Ltd. (Conoco) later acquired Gulf, and in 2002, Fortune Minerals Ltd., a majority partner in Arctos, purchased the Project from Conoco.

The anthracite deposits at the Property are part of the Klappan Coalfield at the northern end of the Bowser Basin of British Columbia. During the late Jurassic and early Cretaceous periods, the Bowser Basin was filled with sediments deposited from eroding mountains. At the northern end of the Basin, the Klappan Formation was deposited in a deltaic environment that was conducive to peat forming. Buried deeply after millions of years, the ancient peat bogs became anthracite coal. Approximately 1,100 m in thickness, the Klappan Formation contains 33 identified coal horizons of up to 11.8 m in true thickness interbedded with primarily mudstone, siltstone and sandstone. The Klappan Formation and surrounding beds were later deformed during a period of uplifting that caused compression in a northeast-southwest direction and created folds varying from relatively flat to overturned. In some areas of steep folds, reverse faulting has also occurred.

The uplifting and subsequent erosion have resulted in near-surface occurrences and anthracite outcrops at and near the Property, which Gulf grouped into four different exploration sub-areas named Lost-Fox, Hobbit-Broatch, Summit and Skeena. Gulf later released its licenses over the Skeena Area and significant portions of the Summit Area.

Gulf’s drilling and sampling programs to delineate resources focused primarily on the Lost-Fox Area. Between 1982 and 1988, Gulf conducted a series of summer field programs and geologic studies. The fieldwork consisted of surveys and trenching to map near-surface anthracite sub-crops, drilling and logging to locate anthracite seams at depth and collection of core samples for analysis, and driving adits to collect bulk samples from two of the thickest seams. In addition, in 1985 and 1986, Gulf excavated a test pit and mined and processed bulk samples from the I Seam for pilot plant analysis and potential customer test shipments. Gulf’s major field programs ended in 1988.

Gulf's field and geological work culminated in several mining project feasibility studies of the Lost-Fox Area completed during 1987 – 1990. Gulf staff and consultants including Golder-Marston completed geologic interpretation, resource estimates, open pit mining plans, coal processing and infrastructure plans, and transportation and market studies. Gulf published two major feasibility studies, in 1987 and in 1990, with numerous concept and alternative studies developed during the intervening period. Gulf continued to examine alternative development concepts for the Project through 1994.

In 2002, Fortune acquired the Project and is currently performing geologic, environmental, and mine planning studies to develop the Lost-Fox Area. Fortune has continued this work with a drilling program in the Lost-Fox Area in 2005. As part of the 2002 acquisition due diligence and subsequent block modeling in early 2004 of Gulf's data and geological work, Golder-Marston verified and reported Gulf's resource estimates for the Project under Paper 88-21 of the Geological Survey of Canada, entitled "A Standardized Coal Resource/Reserve Reporting System for Canada" (GSC 88-21).

In 2012, Arctos commissioned Golder-Marston to prepare an update to the 2005 feasibility study to produce anthracite from the Lost-Fox Area of the Project. The title of this study is the "2012 Update of the Mount Klappan Anthracite Project Lost-Fox Area Mine Feasibility Study" (2012 FS). Part of the 2012 FS scope of work was to incorporate new 2005 drilling data, and produce an updated geologic model for use in the 2012 FS.

After a thorough review of the geological data and aerial photographs of the Lost-Fox Area, Golder-Marston concluded that large portions of the area are of a Moderate geology type as defined in GSC 88-21. However, areas of steep dips, overturned structures and significant reverse faults were characterized as Complex geology type. The Measured and Indicated resource estimates were developed applying the different GSC 88-21 standards required for the two geology types.

Resources for the Lost-Fox Area were disclosed in a document titled "Technical Report on the Update to the 2010 Update to the 2005 Lost-Fox Area Feasibility Study." In that report, Marston reported, under GSC 88-21, Measured and Indicated resources of 143.3 Mt, and 15.7 Mt of Inferred resources.

These resources were based on a conceptual pit design with a cut-off strip ratio of 15:1 bcm/tonne of product for a 50 mm x 0 mm sized product with an average ash content of 10 percent on air dried basis (adb).

This Technical Report presents resource and reserve estimates based on the completed 2012 Feasibility Study. The 2012 FS was based on producing a 10 percent ash product that is standard for the PCI markets. Based on this assumption, the 20:1 conceptual pit developed for the 2012 FS was used to define the limits of in situ resources for the Lost Fox Area. The resource estimates are classified as Measured, Indicated and Inferred according to the CIM Definition Standards on Mineral Resources and Mineral Reserves (CIMDS) prepared by the CIM Standing Committee on Reserve Definitions. These were adopted by the CIM Council on November 14, 2004 and updated November 22, 2010, and are incorporated by reference in National Instrument 43-101 (NI 43-101). For coal resource estimates, the CIMDS incorporates by reference the guidelines of GSC 88-21.

Golder-Marston's Measured and Indicated anthracite resource estimates in the 2012 FS Report are presented in the table below. The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce Mineral Reserves.

#### **Lost-Fox Area Estimated Anthracite Resources**

<b>IN SITU TONNES (MT)</b>	
<b>Measured</b>	<b>Indicated</b>
172.4	20.4

Note: Conceptual Pit at 20 bcm per 10% Ash, adb Product Tonne Cut-off Strip Ratio

In addition to the measured and indicated resource, there were 12.1 Mt of inferred coal resources identified in the Lost Fox Area.

CIMDS defines Mineral Reserves as "the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This study must include adequate information on mining,

processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.”

In accordance with CIMDS, Golder-Marston estimated Lost-Fox anthracite reserves based on a 25-year mine plan and associated economic studies. The reserves were estimated within an ultimate pit designed on the economics developed for the 2012 FS. For initial pit designs, Golder-Marston used Lerchs-Grossmann (LG) pit optimization tools, which are a standard in the mining industry. A series of nested pits were developed based on a range of commodity prices and estimated unit costs for mining, processing, and transporting coal to port.

The nested LG pits were then used as a guide to design a series of phased mining pits and develop a mining sequence to maximize NPV over the life of the current project. The reserves within the ultimate pit were used to develop a 25-year mine life at a nominal production rate of 3 million tonnes per annum (Mtpa). The resulting mining sequence and detailed annual production statistics were used to develop detailed operating and infrastructure cost estimates. For a range of assumed anthracite sales prices, annual cash flows were estimated to calculate internal rates of return. At Arctos’ estimated price of US\$175 per tonne FOBT over the mine life, the pre-tax net present value (NPV) of the project at 8% discount rate is \$616 million with an internal rate of return (IRR) of 17%. The ultimate pit is shown in, Figure 15.1, 3 Mtpa Ultimate Pit Design of the 2012 Arctos Report. All dollar values are reported in Canadian Dollars unless otherwise stated.

Lost-Fox Area anthracite reserve estimates are based on the 2012 FS. In accordance with CIMDS, the reserve estimates include adjustments to the in situ coal estimates for mining losses, out of seam dilution, and changes in moisture for run-of-mine (ROM) coal. In order to provide a more thorough understanding of the mine economics, the plant yield and clean coal reserves are included. These Lost-Fox anthracite reserve estimates are shown in the table below.

#### Lost-Fox Area Anthracite Reserves

ROM Tonnes (Proven & Probable) (Mt)	Yield %	10% Ash (Adb) Clean Coal Reserves (Mt)			Waste (Mbcm)	Clean Coal Strip Ratio (Bcm/ tonne)
		Proven	Probable	Total		
124.9	55.4	64.4	4.8	69.2	780.8	11.3

Based on the 2012 FS, Golder-Marston concludes the following:

1. If favorable markets continue for metallurgical coal the 2012 FS indicates that the Lost-Fox Mine can be a viable mining operation assuming all environmental, permitting and financing hurdles can be overcome.
2. The 2012 FS indicates that the Lost-Fox Mine contain Proven and Probable Reserves of 124.9 million ROM tonnes that, at an average plant yield of 55.4 percent, will produce 69.2 million tonnes of marketable coal at 10 percent ash (adb).
3. The Lost-Fox Area contains Measured and Indicated Resources of 192.8 million tonnes that include the Proven and Probable Reserves.

#### Recommendations

1. Golder-Marston recommends that Arctos perform a field testing program to identify any sources of ground water, permafrost or other conditions that may impact the stability of the proposed rock placement strategy and perform additional drilling to provide data for testing and stability analysis of the proposed rock storage piles.
2. Golder-Marston recommends that Arctos commence further gathering and examination of geotechnical data in areas of planned ultimate pit walls as well as employ safe mining practices to ensure a greater degree of certainty regarding slope stability. The exposure of permafrost or bentonite may have a negative impact on slope stability and must be taken into account.

3. Arctos should engage in discussions with the federal and provincial government, and other potential users of the rail line for the purposes of investing in the rail facilities to reduce Arctos' share of the capital costs of upgrading the rail.
4. Arctos should commence bulk testing designed to provide further information on large size fraction yields and middlings re-crush yields. Testing should also be performed to confirm the product quality of the 15% ash sinter product and to optimize the yield and economics of the two products.
5. Golder-Marston recommends that Arctos commence with the Project assuming that the strong low-volatile PCI coal market outlook continues and that all permits can be obtained.

## **Mining Methods**

### **Mining Operations**

The mine plan and production schedule is based on an ultimate pit shell, which was derived using Lerchs-Grossman optimization and a price of \$150/tonne for PCI coal. The design pit slope highwall of 45° was used to ensure all material was properly accounted for outward from the coal block at depth and is consistent with and based on a geotechnical analysis of the final pit slopes. The footwall followed the floor of the lowest coal seamed mined with dips varying from approximately 15° to 45°.

Rock storage piles were developed to minimize haulage and associated costs as well as to minimize their weight per unit area for stability purposes. The overall angle of the external rock storage piles is 14° (4:1) with 54-meter benches provided at 20-meter intervals.

The ultimate pit has been scheduled to produce up to 3Mtpa of clean coal product. The operation is planned to use surface open-pit mining methods using shovels, truck, and ancillary equipment. The mine uses standard open-pit mining equipment that is diesel powered. The equipment includes hydraulic shovels and backhoes for mine rock removal and coal mining, rotary drillings for drilling and blasting, rear-dump off-highway mine trucks and standard auxiliary equipment such as dozers, graders, fuel and lube trucks, maintenance trucks and other items.

A summary of the proposed production schedule is shown in the table below. The production period spans a 25 year mine life with construction operations beginning in Year -1 and mining operations continuing until the reserve is depleted in Year 25. The Arctos Anthracite Project is scheduled to produce approximately 69.2M clean coal tonnes over the mine of life. The average clean coal-stripping ratio is 11.3 bcm of mine rock per clean coal product tonne.

### Arctos Anthracite Production Forecast

<b>Mine Year</b>	<b>Total Stripping Volume (000s bcm)</b>	<b>ROM Coal Production (000s tonnes)</b>	<b>ROM Stripping Ratio (bcm/ROM tonne)</b>	<b>Product Coal Tonnage (000s tonnes)</b>	<b>Product Stripping Ratio (bcm/product tonne)</b>
<b>Year -1</b>	<b>3,026</b>	55	55.1	0	0
<b>Year 1</b>	<b>9,376</b>	708	13.2	0	0
<b>Year 2</b>	<b>27,329</b>	3,895	7	2,780	9.8
<b>Year 3</b>	<b>29,525</b>	4,803	6.1	3,004	9.8
<b>Year 4</b>	<b>33,744</b>	4,732	7.1	3,009	11.2
<b>Year 5</b>	<b>31,024</b>	4,563	6.8	3,012	10.3
<b>Year 6</b>	<b>32,491</b>	5,096	6.4	3,008	10.9
<b>Year 7</b>	<b>32,806</b>	4,929	6.6	3,020	10.8
<b>Year 8</b>	<b>34,832</b>	5,714	6.1	3,004	11.6
<b>Year 9</b>	<b>33,480</b>	5,909	5.7	3,027	11.1
<b>Year 10</b>	<b>34,692</b>	5,916	5.9	2,928	11.8
<b>Year 11</b>	<b>35,178</b>	5,917	5.9	2,982	11.8
<b>Year 12</b>	<b>35,015</b>	5,397	6.5	3,010	11.6
<b>Year 13</b>	<b>34,981</b>	5,206	6.7	3,003	11.6
<b>Year 14</b>	<b>34,577</b>	5,779	6	3,007	11.5
<b>Year 15</b>	<b>35,005</b>	5,148	6.8	3,011	11.6
<b>Year 16</b>	<b>35,052</b>	5,334	6.6	3,000	11.7
<b>Year 17</b>	<b>35,428</b>	5,705	6.2	2,942	12.0
<b>Year 18</b>	<b>35,096</b>	5,832	6	2,875	12.2
<b>Year 19</b>	<b>35,018</b>	5,725	6.1	3,048	11.5
<b>Year 20</b>	<b>35,175</b>	5,562	6.3	2,959	11.9
<b>Year 21</b>	<b>34,171</b>	5,580	6.1	3,006	11.4
<b>Year 22</b>	<b>32,246</b>	5,898	5.5	3,065	10.5
<b>Year 23</b>	<b>30,597</b>	5,470	5.6	3,029	10.1
<b>Year 24</b>	<b>27,012</b>	5,191	5.2	3,008	9.0
<b>Year 25</b>	<b>3,555</b>	984	3.6	505	7.0
<b>TOTAL</b>	<b>780,428</b>	<b>125,049</b>	<b>6.2</b>	<b>69,242</b>	<b>11.3</b>

### Project Infrastructure

The Arctos Anthracite project is accessible by road and rail. Arctos will develop the infrastructure necessary to support mine development and operations, and the transportation of anthracite coal to world markets.

The road access route to the mine for over-the-road vehicles carrying workers, materials and supplies will be the Ealue Lake Road and the Dease Lake Extension railroad grade on the northern side of the project location, as shown in Item 5, Figure 5.1 of the 2012 Arctos Report.

The access route by rail to the property location will undergo a series of upgrades to existing track as well as the construction of track in some areas. The rail right of way extends from the end of the existing rail at Minaret, through the northern end of the Property and on towards the town of Dease Lake. The sub-grade for this right-of-way has been completed, except for a 24 km section north of the Kluatantan River and a similar distance north of the Stikine River. Clean coal will be transported by rail 1,390 km from the mine site to the Ridley Coal Terminal at Prince Rupert where it will be able to be shipped to international markets. The details for the required track infrastructure is shown in Item 5, Figure 5.3 of the 2012 Arctos Report.

The proposed on-site mine infrastructure includes a work camp complex, coal processing plant, train loadout, administration, and maintenance facilities. The processing plant has a capacity of 3.0 Mtpa clean coal. Clean coal will be loaded onto trains by a rail loadout facility capable of loading a 12,500-tonne unit train in less than six hours. Details of major on-site mine facilities infrastructure can be seen in Item 5, Figure 5.2 and Figure 18.1 of the 2012 Arctos Report.

## Capital and Operating Costs

### Mine Capital and Operating Cost Estimates

Golder-Marston prepared capital cost estimates for the mine equipment based on budget quotations from mining equipment suppliers. Golder-Marston compiled all other capital cost estimates for infrastructure and facilities from independent engineering firm, CDG Engineers Inc. Estimated capital expenditures are summarized in the table below.

**Capital Expenditure Summary (\$1,000's)**

	<b>Initial (\$)</b>	<b>Sustaining (\$)</b>	<b>Total (\$)</b>
Mine	192,044	589,186	781,230
Off site Transportation	330,410	-	330,410
On site Infrastructure <sup>(1)</sup>	259,598	3,804	263,402
Other <sup>(2)</sup>	6,559	39,980	46,539
<b>Total</b>	<b>788,611</b>	<b>632,970</b>	<b>1,421,581</b>

<sup>(1)</sup> Water Management

<sup>(2)</sup> Mine Facility General Maintenance & Prep Plant Sustaining Capital

Production costs and capital requirements were estimated assuming all mining, coal processing and coal handling functions are directly performed by Arctos using company-owned equipment and company employees. Ex-mine coal transportation costs would be paid by Arctos using Canadian National (CN) Rail services. For the purpose of cost estimates, the camp operation, employee transport, and vessel loading services were assumed to be provided by contractors or other third parties. The operational costs reflect updated 2012 Feasibility Study budgetary prices. Ridley Terminal does not require capital investment to begin shipping coal.

## Economic Analysis

### Economic Model and Sensitivity Analysis

The cash flow for the Project is presented in Table 22.1, Estimated Cash Flow Summary, in the 2012 Arctos Report. The cash flow was calculated on an annual basis using proven and probable mineral reserves only. The cost and cash flow estimate is on a 100 % equity basis and does not include interest payments or other financing charges. The NPV at an 8 % discount rate was estimated at \$615.9 million before tax and \$405.8 million after tax with an IRR of 17.0 % before tax and 14.7 % after tax, respectively.

The table below, Sensitivity Analysis for Various Rail Investment Levels, shows the sensitivity analyses for various rail investment levels; the table following, Sensitivity Analysis to Changes in Price, OPEX & CAPEX, shows the sensitivity analyses to changes in price, Opex and Capex. The tables provide sensitivity analyses with variants in prices, exchange rates, capital costs and operating costs. Changes in coal grades or ranks would affect sales prices.



### Sensitivity Analysis for Various Rail Investment Levels

Pre-Tax Internal Rate of Return and NPV (C\$ Millions) at 8% discount factor						
Fortune Rail Capital Expenditure	Product Sales Prices (US\$/t)					
	US \$150/t		US\$175/t		US \$200/t	
	IRR	NPV 8%	IRR	NPV 8%	IRR	NPV 8%
100 percent	7.5%	-31M	17.0%	616M	24.8%	1,246M
75 percent	8.9%	47M	19.1%	688M	27.7%	1,326M
50 percent	9.5%	120M	21.7%	758M	31.0%	1,394M

Pre-Tax Internal Rate of Return and NPV (C\$ Millions) at 8% discount factor						
Fortune Rail Capital Expenditure	Sales Prices (US\$/t)					
	US \$150/t		US\$175/t		US \$200/t	
	IRR	NPV 8%	IRR	NPV 8%	IRR	NPV 8%
100 percent	6.3%	-94M	14.7%	406M	21.5%	883M
75 percent	7.5%	-28M	16.5%	466M	24.0%	949M
50 percent	8.9%	38M	18.7%	525M	26.8%	1,004M

### Sensitivity Analysis for Various Rail Investment Levels

% Change		Pre Tax			After Tax		
		IRR	NPV 8% (\$)	NPV 10% (\$)	IRR	NPV 8% (\$)	NPV 10% (\$)
Price	-10	10.6%	166,698	34,889	9.1%	60,450	(46,129)
		17.0%	615,935	411,940	14.7%	405,771	246,197
	+10	22.6%	1,062,342	784,869	19.6%	744,243	530,297
Opex	-10	20.8%	916,526	663,516	18.1%	634,867	439,058
		16.9%	615,935	411,940	14.7%	405,771	246,197
	+10	12.3%	320,351	163,825	11.1%	178,438	53,738
Capex	-10	19.0%	701,801	493,764	16.5%	476,228	314,534
		16.9%	615,935	411,940	14.7%	405,771	246,197
	+10	15.0%	530,083	329,936	13.1%	334,876	177,216

#### Payback

As shown in the economic model section, on a 100 % equity basis with no interest charges, the payback period for the Lost-Fox Project under the 3 Mtpa case is approximately 7.7 years on an after-tax basis at an 8% discount rate.

#### Mine Life

The mine life of the Lost-Fox operation is approximately 25 years with the reserves currently delineated. Additional exploration potential exists in the Hobbit-Broatch area.

#### Environmental Studies and Permitting

Fortune previously submitted a project description to the British Columbia Environmental Assessment Office and received Section 10 and 11 Orders indicating that the EA process has started and defines the scope, procedures and methods required for the EA of Fortune's project. Draft Terms of Reference were issued in 2006 and public comments were received, however, the process was put on hold by Fortune while a strategic partner was being sought. With the funding provided by POSCAN and the formation of the Arctos JV, the permitting process is being re-initiated and an updated project description, gap analysis of environmental studies to be completed and work plan development is currently underway. Fortune is working with the local communities to explain the project and its benefits and potential impacts and currently has an EA Cooperation Agreement with the Tahltan. Development of

Arctos will bring long-term employment to an area already adversely impacted by the downturn in the forestry industry as well as provide important infrastructure for the benefit of other projects and the public.

Fortune previously retained the services of Rescan Environmental Services Limited and Rescan Tahltan Environmental Consultants to conduct extensive environmental baseline studies and to assist the Company in preliminary permitting activities for Arctos. The Company has now retained Stantec Consulting to lead environmental studies along the proposed extension to the Dease Lake rail line and Arctos property and to prepare an updated project description to re-start the EA process.

Fortune intends to construct and operate an environmentally sustainable project for the benefit of all stakeholders.

### ***Revenue Silver Mine***

Set forth below is the summary of the mining methods, project infrastructure, capital and operating costs and economic analysis for the Revenue Silver Mine contained in a technical report entitled “*NI 43-101 Technical Report Preliminary Economic Assessment, The Revenue Silver Mine, Sneffels, Colorado*” dated April 18, 2014 by SRK Consulting (U.S.) Inc. (the “2014 Revenue Silver Mine Report”). Dorinda Bair, B.Sc. Geology, CPG, James M. Beck, B.Sc. Mining Engineering, P.E., Mark K Jorgensen, B.Sc. Chemical Engineering, Joanna Poeck, B.Eng. Mining are the Qualified Persons responsible for the preparation of the 2014 Revenue Silver Mine Report in compliance with NI 43-101. The 2014 Revenue Silver Mine Report was filed on SEDAR on July 24, 2014 and is available at [www.sedar.com](http://www.sedar.com). The following information is of a summary nature only and reference is made to the detailed disclosure contained in the 2014 Revenue Silver Mine Report, which is incorporated herein by reference.

### **EXTRACTS FROM THE NI 43-101 TECHNICAL REPORT PRELIMINARY ECONOMIC ASSESSMENT, REVENUE SILVER MINE, SNEFFELS, COLORADO**

#### **1.0 Summary**

This report was prepared as a NI 43-101 Technical Report, Preliminary Economic Assessment (Technical Report or PEA) for Fortune Minerals Limited (Fortune or the Company), by SRK Consulting (U.S.), Inc. (SRK) on the Revenue Mine (Revenue Mine or the Project). The purpose of this Technical Report is to update the resource estimate for the polymetallic Yellow Rose Vein (Yellow Rose) and the Virginus Vein (Virginus) with analytical data from new drilling and channel sampling completed by Star Mine Operations LLC (Star) and to complete PEA level mine design, production schedule, and economic evaluations. The PEA is preliminary in nature that it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized. This Technical Report is intended for public disclosure provided any use of this report by any third party is at that party's sole risk.

Fortune and Star have informed SRK that they have started mine production and mill commissioning and that infrastructure is in place for the Revenue Mine to be put back into production. SRK has not reviewed the infrastructure or mining aspects of the Project. SRK has reviewed historical test work that was performed for Ranchers in 1984 and results from test work completed in 2012 by Star. Review of this test work was considered indicative of recoveries using a flow sheet and equipment suitable for silver flotation. The historical recoveries and 2012 test work are the basis for recoveries used to report the resources estimate.

#### **1.1 Property Description**

The Project is located in southwestern Colorado about 5.5 miles southwest of the town of Ouray. The Revenue Portal, the site of the current surface activity, is located at longitude 107.750° W, latitude 37.974° N (mine grid coordinates of 100,630 ft E, 99,100 ft N). The majority of the historical underground work occurred approximately 1.2 miles to the southwest centered at approximately 107.773° W, latitude 37.967° N (mine grid coordinates of 97,790 ft E, 95,070 ft N). All of the mining claims are located in Township 43 North, Range 8 West, New Mexico Prime Meridian (NMPM), Ouray and San Miguel Counties, Colorado, and are held in the name of either Revenue-Virginus Mines Corporation (RV) or Silver Star Resources, LLC (Star Resources). Figure 4.1.1 presents the location of the Project.

## 1.2 Ownership

The Project is 12% controlled by Fortune through its wholly owned subsidiary Fortune Revenue Silver Mines, Inc. (Fortune Revenue). The remaining 88% is controlled by Star, a Colorado limited liability private company. Star is controlled by Rory James Williams, James W. Williams, Jr., and John A. Bettridge. Williams, Williams and Bettridge are the majority owners of RV and Star controlling 98.75%, with the remaining held by other owners at 1.25%. Fortune Revenue has operating authority for the mine, mill and surface operations. Fortune Revenue can complete the purchase of a 100% interest in the Project by paying an additional US\$14 million to Star and the other owners by July 31, 2014, subject to a promissory note to pay US\$34.5 to US\$36.8 million in deferred quarterly installments over 3.5 to 5.75 years, respectively and by assuming additional deferred payments to the previous owners of US\$4.5 million and a 2% net smelter return royalty capped at US\$9 million.

## 1.3 Geology and Mineralization

At the Yellow Rose and Virginus, silver, gold, copper, lead and zinc mineralization is found in quartz veins hosted primarily in San Juan volcanic rocks. Veins range from several inches up to 6 ft in thickness, and have been mined and drilled over a vertical extent of approximately 3,000 ft. The Virginus vein has been mapped at surface over a distance of approximate 4,000 ft and the Yellow Rose has been traced for up 16,000 ft extending off the Star property. Mineralization found in the Virginus and Yellow Rose is interpreted as epithermal (formed at shallow depths and low to medium temperatures). Some workers are of the opinion that it may also be interpreted as deep epithermal or shallow mesothermal. Mineralization in the veins south of Stony Mountain, including the Virginus, is interpreted as shallow emplacement and includes galena, sphalerite, pyrite, tetrahedrite, arsenopyrite, marcasite and minor covellite. Gangue minerals include quartz, barite, sericite, calcite, rhodocrosite, ankerite, siderite and other carbonate minerals. Some authors have reported adularia, and other more obscure silicates, carbonates, and sulfates. Alteration minerals include sericite, beidellite and other clays as well as iron and magnesium oxides (Moore, 2004). Trujillo (2012, personal communication) described the tetrahedrite at the Project as freibergite and stated that some native silver had been identified. "High grade" mineralization was described as massive, occurring in nodules and bands in association with calcite. Galena was described as coarse-grained with euhedral crystals up to 3.5 inches long. Quartz occurs as rhythmically banded veins characteristic of low sulfidation epithermal vein development.

## 1.4 Status of Exploration, Development and Operations

The Virginus is a past silver producer in the Sneffels Mining District. Silver was reportedly discovered at the site in 1876 with underground production beginning in 1880 and continuing through 1906 when the mine flooded. Milling continued until 1912 when the mill was destroyed in a fire. There is no recorded production after 1912 and the limited production reported cannot be verified.

Since 1912, exploration work has been completed by contractors to the family of A.E. Reynolds (the Family) and by leasing agreements between the Family and Camp Bird, Inc. (Federal Resources) from 1960 through 1970, Ranchers Exploration and Development Corp. (Ranchers) from 1980 to 1984 and Sunshine Mining and Refining Company (Sunshine) from 1994 to 2001. Star acquired the Project in 2011. Since then Star has completed 68 surface drillholes, 33 underground drillholes, 201 channel samples and collected 818 samples from surface dumps and tailings. Most of the drilling and channel sampling was focused on the Yellow Rose Veins with additional drillholes investigating the Virginus, Terrible and Wheel of Fortune veins. Star has also completed exploration and development drifting in the Yellow Rose Vein. In addition, Star has collected two bulk samples for completion of metallurgical test work in support of construction of a 300 t/d mill. In May, 2014 Fortune Revenue obtained a 12% interest in the Project and became responsible for operating direction and authority.

## 1.5 Mineral Resource Estimate

The Mineral Resource statement, presented in Tables 1.5.1 and 1.5.2, represents the mineral resource evaluation prepared for the Revenue Project in accordance with the Canadian Securities Administrators' National Instrument 43-101 (NI 43-101).

A four pass inverse distanced squared (ID2) grade estimation methodology was used to estimate grades for both Yellow Rose and Virginus veins. Variography was utilized to determine proper search ellipsoid orientation and search distances.

Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of this mineral resource will be converted into mineral reserve.

The Project's mineral resources are not materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, political or other relevant issues. The estimates of Mineral Resources and Mineral

Reserves may be materially affected if mining, metallurgical, or infrastructure factors change from those currently anticipated.

The resource estimation for both the Yellow Rose and the Virginus are reported at a minimum total recovered block metal value using a mining and milling cost provided by Star of US\$150/t. Total recovered block metal is based on the following prices and recoveries provided by Star:

- Ag price of US\$20/oz and recovery of 95%;
- Au price of US\$1,250/oz and recovery of 90%;
- Cu price of US\$3.15/lb and recovery of 80%;
- Pb price of US\$1/lb and recovery of 90%; and
- Zn price of US\$1/lb and recovery of 85%.

Copper was not estimated at Yellow Rose due to lack of validation of the copper database. The data were hand entered from historical assay certificates and there were too many data entry errors for inclusion in the resource estimation at this time. With additional data review and data entry corrections, there is potential to add this data to the resource estimate. Table 1.5.1 presents the Yellow Rose resource statement and Table 1.5.2 presents the Virginus Resource statement.

**Table 1.5.1: Mineral Resource for the Yellow Rose at a Cut-off of US\$150/t as of April 18, 2014**

Category	Tons	Ag (oz/t)	Au (oz/t)	Pb (%)	Zn (%)	Contained Metal			
						Ag (Moz )	Au (oz )	Pb (Mlb)	Zn (Mlb)
Measured	215,300	10.08	0.034	1.71	1.69	2.17	6,400	7.37	7.28
Indicated	100,700	10.92	0.036	1.96	1.74	1.10	4,000	3.95	3.50
Measured & Indicated	316,100	10.35	0.035	1.79	1.71	3.27	10,490	11.31	10.78
Inferred	38,100	11.01	0.025	1.69	0.92	0.49	700	1.28	0.701

- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
- Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
- Cut-off is based on a minimum total recovered metal value using a mining and milling cost provided by Star of US\$150/t.
- Recovered block metal value = (Ag oz/t \* Ag recovery \* US\$/oz Ag) + (Au oz/t \* Au recovery \* US\$/oz Au) + (2000 \* Pb % / 100 \* Pb recovery \* US\$/lb Pb) + (2000 \* Zn % / 100 \* Zn recovery \* US\$/lb Zn).
- The following metals prices and recoveries were used: Ag price of US\$20/oz and recovery of 95%; Au price of US\$1,250/oz and recovery of 90%; Pb price of US\$1/lb and recovery of 90%; Zn price of US\$1/lb and recovery of 85%.

**Table 1.5.2: Mineral Resource at the Virginus at a Cut-off of US150/t as of April 18, 2014**

Category	Tons	Ag (oz/t)	Au (oz/t)	Pb (%)	Cu (%)	Zn (%)	Contained Metal				
							Ag (Moz )	Au (oz )	Pb (Mlb)	Cu (Mlb)	Zn (Mlb)
Indicated	485,600	26.95	0.044	4.30	0.25	1.37	13.1	21,000	41.80	2.4	13.3
Inferred	646,100	14.93	0.038	3.04	0.13	0.99	9.65	24,500	39.25	1.6	12.8

- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
- Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
- Cut-off is based on a minimum total recovered metal value using a mining and milling cost provided by Star of US\$150/t.
- Recovered block metal value = (Ag oz/t \* Ag recovery \* US\$/oz Ag) + (Au oz/t \* Au recovery \* US\$/oz Au) + (2000 \* Cu % / 100 \* Cu recovery \* US\$/lb Cu) + (2000 \* Pb % / 100 \* Pb recovery \* US\$/lb Pb) + (2000 \* Zn % / 100 \* Zn recovery \* US\$/lb Zn).
- The following metals prices and recoveries were used: Ag price of US\$20/oz and recovery of 95%; Au price of US\$1,250/oz and recovery of 90%; Cu price of US\$3.15/lb and recovery of 80%; Pb price of US\$1/lb and recovery of 90%; Zn price of US\$1/lb and recovery of 85%.

## 1.6 Preliminary Economic Assessment Results

### 1.6.1 Underground Mining

The available geotechnical information and historic mining information indicates that shrinkage stoping is a suitable method for the deposit. The mine is currently in startup production and development with underground mine personnel working two 10 hr shifts/day targeting a production rate of 400 t/d.

Mining occurs in two vein systems, the Yellow Rose and the Revenue Virginius. Mine design using Vulcan software was completed based on an estimated NSR cut-off grade of US\$130/t. Stope optimization was used to determine mine plan resource areas based on cut-off grade and a minimum mining width of 3 ft.

Table 1.6.1.1 summarizes the mine plan resources in each area. These numbers include a 90% mining recovery to the designed stope wireframes in addition to the 15% unplanned waste dilution within stopes. Additional development of 5% to 10% was applied based on development type to account for detail currently not in the design. Zero grade was used for the waste dilution.

**Table 1.6.1.1: Mine Plan Resources Classification \***

	Description	Tons (kt)	Ag (oz/t)	Au (oz/t)	Pb (%)	Zn (%)
Revenue Virginius	Measured					
	Indicated	369.8	19.68	0.03	2.91	0.83
	Measured + Indicated	369.8	19.68	0.03	2.91	0.83
	Inferred	310.9	12.43	0.02	1.98	0.69
Yellow Rose	Measured	141.6	8.38	0.02	1.28	1.31
	Indicated	45.2	11.29	0.01	2.21	1.63
	Measured + Indicated	186.86	9.08	0.02	1.51	1.39
	Inferred	20.7	5.19	0.01	1.05	0.73

\*Includes Measured, Indicated, and Inferred reported using a marginal cut-off grade of US\$50/t.

The PEA is preliminary in nature and is based on technical and economic assumptions which will be further evaluated in more advanced studies. The PEA is based on a resource model that contains Measured, Indicated and Inferred mineral resources. Inferred mineral resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

The design was then scheduled using iGantt software to generate a life of mine production schedule which is summarized in Table 1.6.1.2.

**Table 1.6.1.2: Annual Mining Schedule**

Year	Mineralized Tons (kt)	Ag (oz/t)	Au (oz/t)	Pb (%)	Zn (%)	Waste Tons (kt)
2014	24.2	8.13	0.02	1.60	0.94	35.8
2015	122.8	13.66	0.02	2.04	1.00	99.5
2016	141.4	13.61	0.03	2.44	0.87	89.7
2017	140.3	11.23	0.03	1.84	0.95	73.9
2018	142.4	9.79	0.03	1.67	0.88	21.4
2019	141.8	14.26	0.02	2.25	0.81	10.2
2020	140.7	23.04	0.02	3.01	1.00	0.2
2021	34.7	27.83	0.03	3.92	0.58	0
<b>Total</b>	<b>888.3</b>	<b>14.63</b>	<b>0.02</b>	<b>2.26</b>	<b>0.90</b>	<b>330.7</b>

### 1.6.2 Processing and Metallurgy

Preliminary test work on bulk samples taken from the mine indicate that base and precious metals may be recovered using standard crushing, grinding, gravity and flotation methods. Historically, mineralized material was treated using what today would be considered a conventional flotation process. Based on these preliminary results and historical information, Star directed CH2M HILL Engineers, Inc. (CH2M HILL) to provide a detailed engineering design for a 300 t/d plant.

CH2M HILL designed a conventional flotation plant to process Virginius and Yellow Rose mineralized material that includes two-stage crushing, ball mill grinding, reagent storage, flotation, flotation concentrate filtration for product

shipment and a tailings filtration circuit for dry tailings disposal. At the time of this writing, the plant has been constructed and is being prepared for operation. Commissioning of the mill has commenced; however, steady state operation has yet to be achieved. Once steady state operation is achieved mill recovery and grade parameters will be verified.

### ***1.6.3 Geotechnical and Tailings***

No geotechnical studies have been conducted to collect data on rock mass characterization. Ground conditions used as the basis for assessing mine design parameters are based on observations made during a site visit to the underground workings.

The vein varies in thickness, proximate location to the dikes, and undulates along both strike and dip. Rock mass quality was observed to vary from Very Good, Class I rock ( $RMR > 80$ ) to Fair, Class III rock ( $40 < RMR < 60$ ).

In the absence of rock mass characterization data, SRK has not conducted a detailed review of optimal mining methods. The PEA relies on historic mining methods used in the historic ground conditions and it is assumed that all stopes will be mined using shrinkage stope method.

SRK has made a preliminary assessment using empirical design methods for sizing pillars and stopes at the mine. The stope design parameters have been assumed rock mass properties.

Although pillar dimensions will be a function of the mined vein thickness in various ground conditions the following average stope design parameters have been used

Rib pillars are about 6 ft wide;

Surface crown pillar is about 7.5 ft wide;

Sill pillars are about 12.5 ft wide; and

Maximum stope length is 125 ft long with 125 ft between levels.

The PEA design assumes only spot bolting will be required in weaker rock areas. This has been incorporated into the design by including 4 ft long split sets on a 4-ft spacing over 5% of the new workings. It is assumed that 10% of the historic workings that are rehabbed will require this average level of ground support.

A TSF will be constructed near the Revenue Tunnel portal. The current permit allows for total tailings storage of 482 kt between the Revenue pile and the Atlas pile. The Company has stated that with a permit modification the capacity could be increased to about 4 Mt.

### ***1.6.4 Infrastructure***

The Project infrastructure is largely in existence at the mine. The mine is located approximately 5.5 miles southwest of Ouray, Colorado, and accessible year round via dirt roads. Power and water are available on site and in case of loss of permanent power a diesel powered backup generator is being installed. A local workforce exists in surround towns to support the mine.

### ***1.6.5 Environmental and Permitting***

At this date, it appears that all necessary environmental studies and permitting activities are either completed or well-defined and progressing satisfactorily to facilitate Project startup. The Company has indicated an awareness of potential future permitting requirements associated with various tailing disposal capacity enhancement options. Likewise, other programs are in place to ensure ongoing monitoring requirements are carried out and necessary environmental management actions integrated (as required) into existing permits.

No significant outstanding environmental studies or permitting issues have been identified; however, authorization of production-scale operations remains contingent on Fortune satisfactorily addressing various “conditions” attached to the Colorado Division of Reclamation, Mining and Safety (DRMS) 112-D Reclamation Permit. In general, these conditions pertain to a demonstration (and DRMS “acceptance” of the results) that the produced mill tailing will be rendered virtually “inert” after flotation processing and dewatering/filtration. While pilot-scale milling and tailing analyses are ongoing at the time of this review, it is anticipated that such will be the case, and the proposed dry stack tailing disposal method will move forward (allowing scale-up to production status). An additional condition potentially influencing the actual production start-up date is associated with Fortune’s satisfactory characterization of baseline groundwater characteristics in the proposed tailing storage area(s); it is anticipated that recent data, along

with the use of historic data, will achieve this objective and allow production-scale start-up to occur in a timely manner.

### 1.6.6 Capital Costs

Table 1.6.6.1 summarizes the capital costs.

**Table 1.6.6.1: Capital Cost Summary**

Area	LoM Capital (US\$000s)
Mine Development	20,656
Mine Equipment	1,679
Plant Expansion	912
Environmental	2,897
<b>Total</b>	<b>\$26,144</b>

### 1.6.7 Operating Costs

Table 1.6.7.1 summarizes the operating costs.

**Table 1.6.7.1: Operating Cost Summary**

Description	LoM (US\$000s)	LoM (US\$/t-Mineralized Material)
Surface	25,813	21.18
Underground Mining*	57,272	46.98
Process	25,407	20.84
Environmental	5,128	4.21
G&A	30,479	25.00
<b>Total Operating</b>	<b>\$144,099</b>	<b>\$118.21</b>

\*A portion of the mine development has been capitalized.

### 1.6.8 Indicative Economic Results

Results indicate that the Project has a potential after tax present value of approximately US\$58.8 million, based on a 6% discount rate. Table 1.6.8.1 shows annual production and revenue forecasts for the life of the project.

**Table 1.6.8.1: Revenue Mine LoM Annual Production and Revenues**

Year	RoM/ Plant Feed (kt)	Lead Conc. (t)	Zinc Conc. (t)	Gravity Conc. (lb)	Free Cash Flow (US\$ 000s)	Discounted Cash Flow (US\$000s)
2014	24.19	668	292	1.93	(9,488)	(9,488)
2015	122.82	4318	1585	11.20	1,424	1,344
2016	141.39	5943	1583	15.31	11,642	10,361
2017	140.30	4448	1712	15.00	6,537	5,488
2018	142.40	4111	1608	15.90	8,967	7,102
2019	141.78	5515	1475	11.34	17,188	12,844
2020	140.69	7297	1810	11.26	30,462	21,474
2021	34.72	2349	259	4.17	13,614	9,054
2022	0.00	0	0	0.00	1,064	668
<b>Total</b>	<b>888.28</b>	<b>34,648</b>	<b>10,324</b>	<b>86.11</b>	<b>\$81,410</b>	<b>\$58,848</b>

## 1.7 Conclusions

SRK considers that the project is amenable to underground mining methods. It is the goal of the PEA to present an option for mine development of the Project that best fits Fortune's corporate strategy of maximizing the mine life which Fortune states allows them to capitalize on anticipated future exploration upside and silver price increases. This approach does not necessarily maximize the NPV of the project presented herein.

The metallurgical flow sheet for the PEA includes lead concentrate, zinc concentrate, and gravity concentrate. The mill is designed to operate at 300 t/d but modifications underway should allow the mill throughput to ramp-up to 400 t/d by 2015. The average annual throughput is approximately 140,000 t/y based on operating at 400 t/d for 350 days per year.

Highlights of the PEA include:

- Underground mine life of eight years, which includes a ramp up and ramp down;
- Combined mine plan resources of 888.3 kt from two separate mining areas;
- Mine plan resource average yearly contained silver of 1.86 Moz silver;
- Mill annual average production (recovered) of 1.7 Moz of equivalent silver (AgEq);
- Average cash operating cost (including by-products) of US\$11.16/oz AgEq;
- Capital in the first year (2014) is US\$6.4 million; and
- After-tax IRR of 73.2% and NPV (6%) of US\$58.8 million. This mine has already been significantly developed and the cashflow model is not reflective of sunk costs except for the impact on depreciation.

### ***Other Northwest Territories Properties***

Fortune has other participating interests in mineral claims in the Northwest Territories. They include the 100% owned Sue-Dianne deposit contained in a 451 ha lease and a 100% interest in 116 ha at Salkeld Lake south of Great Slave Lake with copper-silver-gold +/- lead and zinc showings.

The Sue-Dianne lease is located 24 km north of NICO in the Mazenod Lake area of the Northwest Territories. There is an underlying 1.5% NSR royalty payable to Noranda and a 15% net profits interest to the original vendor of the property. Fortune acquired its interest in Sue-Dianne pursuant to a 1996 option agreement whereby Fortune earned a 50% interest by expending \$2 million in exploration of the property over 3 years. Fortune increased its interest in Sue-Dianne to 100% when Noranda did not participate in subsequent work programs.

The Sue-Dianne lease contains the Sue-Dianne deposit, which was discovered in 1975 when Noranda drilled a target identified from earlier geological mapping and geophysical surveys. Drilling by 1977 partly delineated an historical (pre-NI 43-101) resource. No further work was carried out until Fortune optioned the property as part of a regional approach to exploration in the area. Fortune carried out additional geology and geophysical surveys, environmental, geotechnical engineering and metallurgical studies, and drilled 47 holes by the end of 1998. Additional work consisted of geotechnical engineering and site rehabilitation. Revised resource estimates as set forth below were prepared in early 2008 by Micon and P&E. The processing of mineralization from Sue-Dianne could take place at the proposed NICO processing facility once mining operation have ceased at NICO or at an expanded NICO process plant in the future. However, such an expansion is not presently contemplated and is not part of the NICO mine permit applications submitted. Preliminary metallurgical test work has been conducted on composite samples of core from the deposit at SGS in 1998.

### **Resources for the Sue-Dianne Copper-Silver Deposit @0.40% Cu Cut-Off Grade**

<b>Classification</b>	<b>Tonnes</b>	<b>Cu (%)</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (million lbs)</b>	<b>Au (oz)</b>	<b>Ag (oz)</b>
<b>Indicated</b>	8,444,000	0.80	0.07	3.2	149.1	19,000	855,000
<b>Inferred</b>	1,620,000	0.79	0.07	2.4	28.3	3,600	122,000

### **DIVIDENDS**

To date the Company has not paid any dividends on its shares, and it is unlikely that dividends will be payable in the foreseeable future. The Company anticipates that dividends will only be paid in the event it successfully brings one of its properties into production.



## DESCRIPTION OF CAPITAL STRUCTURE

Fortune's authorized share capital consists of an unlimited number of common shares ("Common Shares") without par value, of which 214,822,180 are outstanding as at the date hereof. Holders of Common Shares are entitled to one vote per share at any meeting of the shareholders of the Company, to receive dividends as and when declared by the Board of Directors, and to receive pro rata the remaining property and assets of the Company upon its dissolution or winding-up. The holders of Common Shares as a class have no pre-emptive, redemption, subscription or conversion rights. Modifications to the rights, privileges, restrictions and conditions attached to the Common Shares (including the creation of another class of shares that ranks prior to or on a parity with the Common Shares) requires an affirmative vote of two-thirds of the votes cast at a meeting of the holders of Common Shares.

## MARKET FOR SECURITIES

### Trading Price and Volume

The Common Shares are listed on TSX under the symbol "FT" and on the OTCQX under the symbol "FTMDF". The following table summarizes the range of trading prices and monthly volumes of Common Shares on the TSX for the most recently completed financial year:

Month	TSX			OTCQX		
	High (Cad \$)	Low (Cad \$)	Volume	High (US \$)	Low (US \$)	Volume
January	0.46	0.27	1,222,037	0.41	0.26	97,500
February	0.43	0.33	784,812	0.40	0.30	37,750
March	0.41	0.34	1,452,213	0.35	0.32	82,732
April	0.39	0.34	1,796,713	0.36	0.30	280,000
May	0.36	0.28	1,810,374	0.33	0.26	97,500
June	0.36	0.28	2,270,936	0.35	0.26	775,610
July	0.42	0.34	1,684,221	0.39	0.33	444,775
August	0.35	0.28	3,176,306	0.31	0.26	255,946
September	0.32	0.22	2,029,818	0.29	0.18	189,857
October	0.22	0.18	2,848,882	0.21	0.16	1,527,106
November	0.19	0.15	2,441,570	0.17	0.13	629,686
December	0.17	0.11	2,507,175	0.15	0.09	689,955

### Prior Sales

The only equity securities that the Company has outstanding that are not listed or quoted on a marketplace are stock options granted under the Company's stock option plan and certain Common Share purchase warrants. Set forth below is information with respect to the stock options issued during the most recently completed financial year. No additional non-trading warrants or compensation options were issued during the most recently completed financial year.

Stock options issued during the most recently completed financial year:

Date of Grant	Date of Expiry	Number of Options Granted	Exercise Price of Options Granted
February 4, 2014	February 4, 2019	2,950,000	\$0.37

There have been no stock options issued subsequent to December 31, 2014.

## ESCROWED SECURITIES

The following table sets for the details of shares of the Company currently held in escrow:

Designation of Class	Number of Securities held in Escrow	Percentage of Class
Common Shares	900,000	0.6%

The shares referred to in the table above were placed in escrow in connection with the transfer to Fortune by Robin Goad and Carl Clouter in 1994 of certain claims that now form part of the NICO property (the “Transferred Property”). In accordance with the securities laws in effect at the time of the transfer, Fortune required the consent of the Director of the Ontario Securities Commission (the “OSC”) to complete the transaction. As a condition of granting such consent, the Director required that the shares to be issued to Messrs. Goad and Clouter be escrowed and such shares were deposited in escrow with Jones, Gable & Company Limited (“Jones Gable”) pursuant to an escrow agreement (the “Escrow Agreement”) dated as of the 23rd day of February, 1995 among Mr. Goad, Mr. Clouter, Fortune and Jones Gable. The escrowed shares held by Mr. Goad were subsequently transferred to Geoscience Technical Inc. (“Geoscience”), a private holding company owned by Mr. Goad.

The Escrow Agreement provides, in effect, that the shares held in escrow thereunder may only be transferred by the holders or released with the consent of the OSC, subject to the exception that:

- (a) one-third of the escrowed shares beneficially owned by each of Geoscience and Mr. Clouter may be released upon the commencement of commercial production on the Transferred Property; and,
- (b) following the commencement of commercial production on the Transferred Property, the balance of the escrowed shares may be released within 30 days of the end of each calendar quarter based on an assumed NSR from the property (the “Royalty”) in each calendar quarter. The aggregate number of escrowed shares to be released on each release date shall be equal to 3% of the Royalty for the immediately preceding calendar quarter divided by the market price of the common shares of Fortune as of last trading day of such calendar quarter.

## DIRECTORS AND OFFICERS

### Name, Occupation and Security Holding

The following table sets forth certain information with respect to the directors and officers of the Company:

<b>Name, Municipality of Residence and Present Position with the Company</b>	<b>Principal Occupation</b>	<b>Director Since</b>
<b>GOAD, ROBIN E.</b> Arva, Ontario President, Chief Executive Officer and Director	Geologist/Mining Executive	1989
<b>DOUMET, GEORGE M.</b> <sup>(1)</sup> Vancouver, British Columbia Director and Honorary Chairman	President and Chief Executive Officer, Federal White Cement Ltd. (specialty cement manufacturer)	1995
<b>CLOUTER, CARL L.</b> Gander, Newfoundland Director	Commercial Pilot/President, Clouter Enterprises Ltd. (real estate investment company)	1988
<b>KNIGHT, DAVID A.</b> Oakville, Ontario Secretary and Director	Partner, Norton Rose Fulbright Canada LLP, Barristers & Solicitors	2000
<b>EXCELL, JAMES D.</b> <sup>(1)(2)</sup> Kelowna, British Columbia Director	President of Narego Solutions Inc. (private consulting company)	2005
<b>NAIK, MAHENDRA</b> <sup>(1)(2)</sup> Unionville, Ontario Chairman and Interim Chief Financial Officer	CPA, CA and Chief Executive Officer, FinSec Services Inc. <sup>(3)</sup> (private business advisory company)	2006

<b>Name, Municipality of Residence and Present Position with the Company</b>	<b>Principal Occupation</b>	<b>Director Since</b>
<b>CHEN, SHOU WU (GRANT)</b> Hong Kong, China Director	Chairman & CEO of Sino Accord International Ltd. (mining advisory company)	2010
<b>YURKOWSKI, EDWARD</b> Calgary, Alberta Director	Consultant (Retired Chief Executive Officer), Procon Resources Inc. (private mining contracting company)	2013
<b>WILLIAMS, JR. JAMES W.</b> Denver, Colorado Director	President and sole owner of Southwestern Productions Corp. (natural resource development company)	2014
<b>ROMANIUK, MIKE A.</b> Sudbury, Ontario Vice President Operations	Mining, Process and Geological Engineer/Mining Executive	N/A

<sup>(1)</sup> Members of the Audit Committee

<sup>(2)</sup> Members of the Compensation Committee

<sup>(3)</sup> FinSec Services Inc. provides management services to Fundeco Inc.

Each of the directors and officers of the Company has held his present principal occupation noted above for the past five years except for:

- Mr. Knight, who prior to January 1, 2012 was a partner with Macleod Dixon LLP. On January 1, 2012 Macleod Dixon LLP merged with Norton Rose OR LLP to form Norton Rose Canada LLP (now Norton Rose Fulbright Canada LLP);
- Mr. Excell, who was the President and CEO of Abacus Mining and Exploration Corp. from July 2010 to January 2014;
- Mr. Chen, who prior to March 2014 was Deputy Chairman and CEO of China Mining Resources Group Limited.
- Mr. Yurkowski, who was the CEO of Procon Resources Inc. retired from that position during the year and currently serves as a director and consultant.

The directors of the Company are elected by the shareholders at each annual general meeting and serve until the next annual general meeting, or until their successors are duly elected or appointed. Officers of the Company are appointed by the board of directors.

As at the date hereof, the directors and officers of the Company as a group owned beneficially, directly or indirectly, or exercised control or discretion over an aggregate of 38,119,647 common shares of the Company, which is equal to approximately 18% of the issued and outstanding shares of the Company.

The following are brief profiles of the directors and officers of the Company:

**Shou Wu (Grant) Chen, M.B.A., M.Sc.,** Director, Hong Kong, China.

Grant Chen is Chairman and CEO of Sino Accord International Ltd., a mining advisory company. Grant was formerly the Deputy Chairman and CEO of China Mining Resources Group Limited, a Hong Kong based company that mines and processes molybdenum in China and invests in Canadian mining companies. Prior to that, Grant worked as a geologist in the precious metals sector in China and then as an analyst and merchant banker, and subsequently, Senior Vice President in the Mining and Metals Division for Standard Bank. Mr. Chen has more than 11 years of additional experience working in the precious metals sector and was a council member for the China Gold Society and a research professor in the Shenyang Institute of Geology and Mineral Resources of the Ministry of Land and Resources, PRC. Grant was appointed as a director of Majestic Gold Corp. during 2013.

**The Honorable Carl L. Clouter**, Director, Gander, Newfoundland.

Carl Clouter is a commercial pilot who owned a charter airline service in the Northwest Territories. Carl has been active in mineral exploration and prospecting carried out in conjunction with more than 36 years of flying throughout remote areas of Canada. Carl also served as a Sentencing Justice of the Peace and a member of the board for the mineral development assistance program for the Government of the Northwest Territories.

**George M. Doumet, M.Sc., M.B.A.**, Director and Honorary Chairman, Vancouver, British Columbia.

George Doumet is a chemical and nuclear engineer who has founded and owns a number of industrial companies. He is President and Chief Executive Officer of Federal White Cement Ltd., a specialty cement manufacturer, and investment holding companies. George is also a Principal in other businesses involved in the production, marketing and distribution of specialty building products, chemicals and industrial minerals.

**James D. Excell, B.A.Sc.**, Director, Kelowna, British Columbia.

Jim Excell is President of Narego Solutions Inc., a Company providing consulting services to the mining industry. From July 2010 to January 2014 Jim was the President and CEO of Abacus Mining and Exploration Corp., a mineral exploration and development company with advanced-stage projects located near Kamloops, British Columbia. During a career spanning more than three decades with BHP Billiton, Jim served as a senior executive and managed and developed some of the world's premier mining projects. They included metallurgical and thermal coal mines in Australia and the United States and the Ekati Diamond Mine and Island Copper Mine in Canada. More recently, Jim was the CEO of North American Palladium Inc., a mining company involved in the production of platinum group metals, nickel and copper. Jim is also a director of Canterra Resources Ltd.

**Robin E. Goad, M.Sc., P.Geo.**, President, Chief Executive Officer, and Director, Arva, Ontario.

Robin Goad is the President and CEO of Fortune. He is a geologist with more than 35 years of experience in the mining and exploration industries. Prior to founding Fortune in 1988, Robin worked for large mining companies including Noranda and Teck, and as a consultant in the resource industry. Robin has previously been a director of other junior resource companies listed for trading on the TSX and TSX Venture Exchange and is currently a director of the Northwest Territories and Nunavut Chamber of Mines.

**David A. Knight, B.A., LL.B.**, Secretary and Director, Oakville, Ontario.

David Knight is a partner with Norton Rose Fulbright Canada LLP, Barristers & Solicitors, a major Canadian law firm and part of the international Norton Rose Group. David specializes in all areas of securities law, including public and private financings, take-overs, stock exchange listings, mergers and acquisitions and regulatory compliance. He has extensive experience in the resource sector and acts for both investment dealers and resource companies. David also serves as a director of Freegold Ventures Limited. David is a member of the Law Society of Upper Canada and the Canadian Bar Association.

**Mahendra Naik**, CPA, CA, Chairman and Chief Financial Officer, Unionville, Ontario.

Mahendra Naik is a Chartered Professional Accountant, Chartered Accountant and is a founding director and former key executive of IAMGOLD Corporation, a TSX and NYSE listed gold mining company. As Chief Financial Officer from 1990 to 1999, he was involved in the negotiations of the Sadiola and Yatela mine joint ventures with Anglo American and the US\$400 million in project debt financings for development of the mines. In addition, he was involved in more than \$150 million in equity financings including the IPO for IAMGOLD. Mahendra is currently the Chief Executive Officer of FinSec Services Inc., a private business advisory company and a director and member of the audit and compensation committees for IAMGOLD. In addition, Mahendra is a director and member of audit, compensation and risk/control committees of FirstGlobalData Limited, Goldmoney Network Limited and Netagio Limited.

**Edward Yurkowski, B.Sc., P.Eng.**, Director, Vancouver, British Columbia.

Ed Yurkowski retired as the Chief Executive Officer of Procon, which in addition to investing in resource companies is a full mining service provider through Procon Mining & Tunnelling Ltd, and currently serves as a director and consultant for Procon. Mr. Yurkowski has been involved in the mining and civil contracting industries since 1966, including ownership and management of two large mining construction contracting companies. Mr. Yurkowski received his Bachelor of Science in Civil Engineering in 1971 from the University of Saskatchewan and currently serves as a director of a number of other TSX and TSXV listed companies, including Imperial Metals Corp., Chieftain Metals Corp., Golden Band Resources Inc., BC Moly Ltd., and Copper Lake Resources Ltd.

**James W. Williams, Jr., B.S., M.S.,** Director, Denver, Colorado.

Jim is the President and Sole Owner of Southwestern Production Corp and has over thirty-four years of oil, gas, mining and real estate experience. Early in his career, Mr. Williams worked for TXO and Duncan Energy Co as a Petroleum Geologist and during his time with these two companies was directly responsible for the discovery of over one hundred billion cubic feet equivalent of natural gas. In addition to owning a number of mines in the Americas, Jim has also owned and operated oil and gas wells in the US including the development of oil projects resulting in production in excess of 5000 barrels per day. Jim has also managed a drilling company and over 1 million square feet of commercial real estate.

**Mike Romaniuk, B.A.Sc., P.Eng.,** Vice President Operations and Chief Operating Officer, Sudbury, Ontario.

Mike Romaniuk has extensive global engineering, mining, mineral processing and smelting operations, and construction experience gained from more than 25 years in the sector primarily with Xstrata Nickel and Falconbridge. His career includes senior positions in charge of Sudbury's integrated operations, the Koniambo ferronickel project as well as the development of other mines and facilities in the Falconbridge group.

### **Cease Trade Orders, Bankruptcies, Penalties or Sanctions**

Except as described below, no director or executive officer of the Company is, as at the date of this Annual Information Form, or was within 10 years before the date of this Annual Information Form, a director, chief executive officer or chief financial officer of any company (including the Company), that:

- (a) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation for a period of more than 30 consecutive days 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 a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation for a period of more than 30 consecutive days 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.

Grant Chen, a director of the Company, was formerly the Deputy Chairman and Chief Executive Officer of China Mining Resources Group Limited ("China Mining"). Dealings in shares of China Mining on the Hong Kong Stock Exchange were suspended on October 11, 2011 pending investigations by Hong Kong regulatory authorities in relation to certain previous transactions involving China Mining. Trading has since resumed.

Except as described below, no director or executive officer of the Company, and no 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 Annual Information Form, or has been within the 10 years before the date of this Annual Information Form, a director or executive officer of any company (including the Company) 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, or
- (b) has, within 10 years before the date of this Annual Information Form, 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.

## **Conflicts of Interest**

Some of the directors and officers of Fortune also serve as directors and/or officers of other companies and may be presented from time to time with situations or opportunities which give rise to apparent conflicts of interest which cannot be resolved by arm's length negotiations but only through exercise by the directors and officers of such judgment as is consistent with their fiduciary duties to the Company which arise under Ontario corporate law, especially insofar as taking advantage, directly or indirectly, of information or opportunities acquired in their capacities as directors or officers of the Company. All conflicts of interest will be resolved in accordance with the appropriate business corporation statute. Any transactions with directors and officers will be on terms consistent with industry standards and sound business practices in accordance with the fiduciary duties of those persons to the Issuer and, depending upon the magnitude of the transactions and the absence of any disinterested board members, may be submitted to the shareholders for their approval.

None of the current directors or officers of the Company, nor any associate or affiliate of the foregoing persons, has any material interest, direct or indirect, in any transactions of the Company or in any proposed transaction which, in either case, has or will materially affect the Company.

## **LEGAL PROCEEDINGS**

Fortune was not a party to any material legal proceedings during the financial year ended December 31, 2014. Fortune is not a party to and none of Fortune's properties is the subject of any current material legal proceedings.

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

No director or executive officer of Fortune, no person or company that is the direct or indirect beneficial owner of or who exercises control or direction over more than 10 percent of Fortune's common shares, and no associate or affiliate of any of the foregoing, has or has had any material interest, direct or indirect, in any transaction during the three most recent financial years or during the current financial year that has materially affected or will materially affect the Company except for Edward Yurkowski, who is a consultant and director for Procon which invested in an equity financing by the Company in 2013, and James Williams, Jr., who became a director in connection with the acquisition by the Company of the assets of the RSM. At the date hereof, Procon is a direct beneficial owner and exercises control or direction over approximately 17% of Fortune's common shares and Mr. Williams is a direct beneficial owner and exercises control or direction over approximately 13% of Fortune's common shares that were issued as partial consideration for the RSM assets.

## **TRANSFER AGENTS AND REGISTRARS**

Computershare Investor Services Inc. at its principal office in Toronto is the registrar and transfer agent for the Common Shares.

## **MATERIAL CONTRACTS**

Fortune did not enter into any contract during the most recently completed financial year, and has not entered into any contract since January 1, 2002 that is still in effect, that may be considered material to Fortune, other than material contracts entered into in the ordinary course of business not required to be filed under National Instrument 51-102-*Continuous Disclosure Obligations* and the PIAPA, and the agreement with LRC with respect to the Metal Prepay Facility, as amended, which have been filed on SEDAR.

## **INTERESTS OF EXPERTS**

Certain disclosure with respect to the Company's properties contained herein or in other filings made by the Company under National Instrument 51-102 during, or relating to, the Company's most recently completed financial year is derived from reports prepared by Golder Associates Ltd., with Edward H. Minnes as the Qualified Person, Micon International Ltd. with Harry Burgess, P.Eng., Richard Gowans, P.Eng., Terrence Hennessey, P.Geo, Christopher Lattanzi, P.Eng., and Eugene Puritch, P.Eng. as the Qualified Persons, SRK Consulting (U.S.) Inc. with Dorinda Bair, BSc Geology, C.P.G., James M. Beck, B.Sc. Mining Engineering, P.E., Mark K Jorgensen, B.Sc.

Chemical Engineering, Joanna Poeck, B.Eng. Mining as the Qualified Persons. As at the date hereof, each of such persons owns directly or indirectly, less than 1% of the outstanding shares of the Company.

Ernst & Young LLP, the Company's auditor, is independent in accordance with the applicable rules of professional conduct of the Institute of Chartered Accountants of Ontario.

### **AUDIT COMMITTEE**

The Company's Audit Committee is responsible for monitoring the Company's systems and procedures for financial reporting and internal control, reviewing certain public disclosure documents and monitoring the performance and independence of the Company's external auditors. The Audit Committee is also responsible for reviewing the Company's annual audited financial statements, unaudited quarterly financial statements and management's discussion and analysis of financial results of operations for both annual and interim financial statements and review of related operations prior to their approval by the full board of directors of the Company.

The Audit Committee's charter sets out the responsibilities and duties, qualifications for membership, procedures for committee member removal and appointments and reporting to the Company's board of directors. A copy of the charter is attached hereto as Schedule "A".

The members of the Company's current Audit Committee are James Excell, George Doumet and Mahendra Naik. Each of Messrs. Excell and Doumet are "independent" and "financially literate" within the meaning of such terms as defined in Multilateral Instrument 52-110 - *Audit Committees*. Mr. Naik is also financially literate and was considered independent until February 1, 2015, when he assumed the role of interim Chief Financial Officer of the Company following the resignation of Adam Jean, the previous Chief Financial Officer. It is expected that Mr. Naik will only act in the capacity of interim Chief Financial Officer until a full-time replacement for Mr. Jean is retained.

#### **Relevant Education and Experience**

Set out below is a description of the education and experience of each Audit Committee member that is relevant to the performance of his responsibilities as an Audit Committee member:

<b>Name</b>	<b>Independent</b>	<b>Financially Literate</b>	<b>Relevant Education and Experience</b>
James Excell	Yes	Yes	Extensive management experience in the mining industry
George Doumet	Yes	Yes	MBA with extensive management experience, ownership and investment holdings in numerous significant businesses
Mahendra Naik	Yes	Yes	Chartered Professional Accountant, Chartered Accountant, with mining and investment industry experience

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

The Audit Committee charter provides that all non-audit services by the Company's external auditors require pre-approval by the Audit Committee.

#### **External Auditor Service Fees**

##### ***Audit Fees***

The aggregate audit fees billed by the Company's external auditors during the financial year ended December 31, 2014 were \$84,500 (2013 – \$50,960).

##### ***Audit-Related Fees***

The aggregate audit-related fees billed by the Company's external auditors during the financial year ended December 31, 2014 were \$73,500 (2013 - \$69,150). These billings related to quarterly review procedures.

***Tax Fees***

The aggregate tax fees billed by the Company's external auditors during the financial year ended December 31, 2014 were \$102,090 (2013 – \$149,690). These billings related to the preparation of the December 31, 2013 income tax returns of the Company and its subsidiary and associated companies and tax advisory services pertaining to the RSM, NICO and SMPP projects.

***All Other Fees***

The Company's external auditors have not provided any services other than those described above in the past two fiscal years.

**ADDITIONAL INFORMATION**

Additional information relating to the Company may be found on SEDAR at [www.sedar.com](http://www.sedar.com).

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, and securities authorized for issuance under equity compensation plans is contained in the Company's information circular for its most recent annual meeting of shareholders. Additional financial information is provided in the Company's audited consolidated financial statements and management's discussion and analysis for its most recently completed financial year ended December 31, 2014.



## **SCHEDULE “A” - AUDIT COMMITTEE CHARTER**

- Composition
  - The audit committee (the “Committee”) will be composed of three directors, all of whom are “financially literate” and “independent”, as such terms are defined in *Multilateral Instrument 52-110 – Audit Committees* (the “Audit Committee Rule”). A quorum will be two directors.
  - Members will have a one-year renewable term with no more than two members rotating in a given year.
  - Any member may be removed and replaced at any time by the Board and will automatically cease to be a member of the Committee as soon as such member ceases to be a director. The Board may fill vacancies in the Committee by election from among the members of the Board to hold office until the next annual meeting of shareholders of the Corporation. If and whenever a vacancy exists on the Committee, the remaining members may exercise all its powers so long as a quorum remains in office.
  - One member shall be appointed Committee chair by the Board.
- Authority
  - The Committee has the authority to investigate any activity of the Corporation. The Committee shall be granted unrestricted access to all information that it considers necessary to carry out its duties and all employees are to co-operate as requested by the Committee.
  - The Committee has the authority to: (i) engage independent counsel and such other advisors as it determines necessary to carry out its duties, (ii) set and pay the compensation for any advisors employed by it; and (iii) communicate directly with the internal and external auditors.
- Meetings
  - The Committee will meet regularly at such times as it considers necessary to perform the duties described herein, but not less than four times per year. At minimum, the meetings will be scheduled to permit review of the quarterly and annual financial statements and reports. Additional meetings may be held as deemed necessary by the chair of the Committee or as requested by any member or the external auditor.
  - Minutes of each meeting will be prepared by the person designated by the Committee to act as secretary and will be provided to the Secretary of the Corporation for retention.
- Reporting
  - A summary of all meetings of the Committee is to be provided to the Board. Oral reports by the chair on matters not yet minuted are to be provided to the Board at its next meeting.
  - Supporting schedules and information reviewed by the Committee will be available for examination by any director upon request to the Secretary of the Corporation.
- Responsibilities
  - The responsibilities of the Committee are as follows:
    - To satisfy itself that the Corporation has implemented appropriate systems to identify, monitor and mitigate significant business risks and compliance matters.
    - To satisfy itself that the Corporation has implemented appropriate systems of internal control to ensure compliance with legal, ethical and regulatory requirements and that these systems are operating effectively.

- To satisfy itself that the Corporation has implemented appropriate systems of internal control to ensure compliance with its policies and procedures and that these systems are operating effectively.
  - To satisfy itself that the Corporation has implemented appropriate systems of internal control over financial reporting and that these systems are operating effectively.
  - To satisfy itself that the policies and procedures for the approval of senior management's expenses, perquisites, remuneration and use of the organization's assets are regularly reviewed, compliance with conflict of interest policies are monitored, and procedures to monitor transactions between officers and the organization and to assess the adequacy of insurance coverage are regularly reviewed.
  - To satisfy itself that the Corporation's annual and interim financial statements are fairly presented in all material respects in accordance with generally accepted accounting principles, the selection of accounting policies is appropriate and annual financial statements are approved by the Board.
  - To review the Corporation's interim and annual financial statements, management's discussion and analysis disclosure ("MD&A") and all earnings press releases before any public disclosure thereof by the Corporation.
  - To satisfy itself that adequate procedures exist for disclosure of financial information extracted or derived from financial statements, other than the public disclosure referred to directly above, and periodically assess those procedures.
  - To ensure that the financial information contained in the Corporation's quarterly reports, annual report to shareholders, MD&A, annual information form, prospectuses and other documents is accurate and complete and fairly presents the financial position and the risks of the Corporation.
  - To establish and review procedures for the receipt, retention and treatment of complaints received regarding accounting, internal accounting controls or auditing matters.
  - To establish and review procedures for the confidential and anonymous submission by employees of concerns about questionable accounting or auditing matters.
  - To annually review the performance of the Committee and report to the Board thereon.
  - To review and reassess the adequacy of this charter on a regular basis and submit any proposed revisions to the Board for consideration and approval.
  - To recommend to the Board (i) the external auditor to be nominated for election by shareholders, and (ii) the compensation of the external auditor.
  - To confirm the independence of auditors, which will require receipt from the auditor of a written statement delineating all relationships between the auditors and the Corporation and that might affect the independence of the auditors.
  - To take direct responsibility for overseeing the work of the external auditor engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Corporation, including the resolution of disagreements between management and the external auditor regarding financial reporting. In carrying out any such services, the external auditor shall report directly to the Committee.
  - To ensure that the external audit function has been effectively carried out and any matter that the external auditor wishes to bring to the attention of the Board has been given adequate attention.
  - To pre-approve all non-audit services to be performed by the external auditor, provided that the Committee may delegate to one or more of its members the authority to pre-approve such services and provided further that the pre-approval of any non-audit services by any member to whom such authority has been delegated must be presented to the Committee at its first scheduled meeting following such pre-approval.
  - To review and approve hiring policies regarding partners, employees and former partners and employees of the present and former external auditor.
- The Committee will inquire into any other matters referred to it by the Board.

**SCHEDULE “B” - GLOSSARY OF MINING TERMS**

The following is a glossary of terms used in this Annual Information Form or in documents incorporated herein by reference.

<b>“adit”</b>	A near horizontal passage from the surface by which a mine is entered and dewatered.
<b>“anthracite”</b>	A hard, compact variety of mineral coal that has the highest carbon count and energy content and contains the least volatile and moisture contents of all coals.
<b>“assay”</b>	An analysis to determine the presence, absence or concentration of one or more chemical components.
<b>“autoclave”</b>	Processing equipment using an oxidation process in which high temperatures and pressures are applied to convert refractory sulphide mineralization into amenable oxide ore.
<b>“base line”</b>	A surveyed condition and reference used for future surveys generally for determining changes from the original condition.
<b>“base metal”</b>	A metal such as copper, lead, nickel, zinc or cobalt, of comparatively low value and relatively inferior in certain properties (such as resistance to corrosion) compared to noble metals such as gold, silver or platinum.
<b>“bogs”</b>	Peat-covered or peat-filled wetlands, which generally have a high water table, are very acidic and low in nutrients.
<b>“coal licenses”</b>	A form of license under the <i>Coal Act</i> (British Columbia) granting exclusive rights to explore for coal.
<b>“cyanidation”</b>	A process extracting gold and silver from their ores by treatment with dilute solutions of potassium cyanide or sodium cyanide.
<b>“deposit”</b>	A mineralized body which has been physically delineated by sufficient drilling, trenching, and/or underground work, and found to contain a sufficient average grade of metal or metals to warrant further exploration and/or development expenditures; such a deposit does not qualify as a commercially mineable ore body or as containing mineral reserves, until final legal, technical and economic factors have been resolved.
<b>“development”</b>	The preparation of a known commercially mineable deposit for mining.
<b>“doré”</b>	A mixture of gold and silver, with minor other constituents, produced by smelting the material from the electrowinning cells. Doré requires further refining, generally not done at a mine site, to yield gold and silver.
<b>“environmental assessment” or “EA”</b>	Examination of a development proposal’s potential to cause environmental, social and economic effects and the proposed mitigation to those effects.
<b>“feasibility study”</b>	Engineering study that is designed to define the technical, economic and legal viability of the mineral project with a high calibre of reliability, contains detailed supporting evidence, and has a firm conceptual framework which can be used for more detailed construction designs and drawings. The study is of sufficient detail and accuracy to be used for the decision to proceed with the project and for financing.
<b>“flotation”</b>	A process of concentration in which levitation in water of particles heavier than water is obtained with the use of chemical reagents, typically used in processing of coal or sulphide minerals with the aid of a reagent and the desired product becomes attached to air bubbles in a liquid medium and floats as a froth.
<b>“flow sheet”</b>	A diagram of a sequence of processes in the treatment of metals.
<b>“footprint”</b>	The land or water area covered by a project. This includes direct physical coverage (i.e., the area on which the project physically stands) and direct effects (i.e., the disturbances that may directly emanate from the project, such as noise).
<b>“g/t Au”</b>	Grams of gold per metric tonne.
<b>“grade”</b>	The quality of an ore or metal content.
<b>“hydrometallurgical”</b>	Pertaining to the treatment of ores, concentrates and other metal-bearing materials by wet processes, usually involving the solution of some component, and its subsequent

	recovery from the solution.
<b>“internal rate of return” or “IRR”</b>	A method used to analyze investments which reflect and account for the time value of money. The IRR is the discount rate which makes the net present value of all-future cash flows (positive and negative) equal to zero. When the IRR is greater than the required rate of return – called hurdle rate in capital budgeting – the investment is acceptable.
<b>“IOCG”</b>	Iron oxide-hosted copper gold mineral deposits, also called Olympic Dam.
<b>“land use permit”</b>	A permit that allows the use of land for activities related to a project. It defines the terms and conditions that govern the activities allowed under the permit.
<b>“leach”</b>	The process of extracting minerals from a solid by dissolving them in a liquid, either in nature or through an industrial process.
<b>“mineralization”</b>	A concentration of minerals within a body of rock.
<b>“mineral reserves”</b>	A <i>mineral reserve</i> is the economically mineable part of a measured or indicated mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A mineral reserve includes allowances for dilution and losses that may occur when the material is mined.
<b>“mineral resources”</b>	<p>A <i>mineral resource</i> is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge.</p> <p><i>measured resources:</i> A measured resource is that part of a mineral resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.</p> <p><i>indicated resources:</i> An indicated resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and test information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.</p> <p><i>inferred resources:</i> An inferred resource is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.</p> <p><i>speculative resources:</i> A resource classification unique to coal with a relatively low degree of geological assurance based on extrapolation of a few data points over large distances, restricted to regions where extensive coal exploitation has not yet taken place.</p>
<b>“mineral claim”</b>	That portion of public or private mineral lands which a party has staked or marked out in accordance with federal, provincial or state mining laws to acquire the right to explore for and exploit the minerals under the surface
<b>“net present value” or</b>	A method used to evaluate the difference between the present value of all estimated

<b>“NPV”</b>	cash inflows and outflows of an investment using a given rate of discount. Generally the discount rate reflects the marginal cost of capital of a company or a hurdle rate. If the discounted cash inflows exceed the discounted outflows, the investment is considered economically feasible.
<b>“net smelter return” or “NSR”</b>	The net amount received from the sale of metal products produced from a property after deducting all freight and downstream treatment charges from processing to saleable metal products, but excluding mining, milling and general administrative expenditures.
<b>“pilot plant”</b>	A small chemical processing system which is operated to generate information about the behavior of the system for use in design of larger facilities.
<b>“pulverized coal injection” or “PCI”</b>	A process involving the direct injection of pulverized coal into a blast furnace as a means of increasing blast furnace productivity and reducing the consumption of more expensive coking coals.
<b>“run-of-mine (“ROM”) coal”</b>	Coal which has been mined prior to screening, washing or any other treatment.
<b>“scoping study”</b>	A study or assessment of the potential economics of a mineralized deposit on a preliminary basis.
<b>“stope”</b>	An underground excavation formed by the extraction of ore.
<b>“strike length”</b>	The physical distance in which the direction or trend taken by a structural surface such as bedding, or a fault plane, as it intersects the horizontal.
<b>“strip ratio”</b>	The unit amount of spoil or overburden that must be removed to gain access to a unit amount of ore or mineral material.
<b>“sulphide”</b>	An anion (an ion with more electrons than protons, giving it a net negative charge) of sulfur in its lowest oxidation number of -2
<b>“sulphide mineral” or “sulphide concentrate”</b>	A mineral or concentrate containing sulphide as its major anion.
<b>“tailings”</b>	Material rejected from a mill after most of the recoverable valuable minerals have been extracted. Normally consists of ground up rock in the sand to silt size range.
<b>“waste rock”</b>	All rock materials, except ore and tailings, that are produced as a result of mining operations.
<b>“water license”</b>	A license that permits the use of water, or the deposit of waste, or both