



**ANNUAL INFORMATION FORM**

**For the year ended April 30, 2012**

**Dated: June 27, 2012**

## TABLE OF CONTENTS

ITEM 1: CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION.....	2
ITEM 2: CURRENCY.....	2
ITEM 3: ACCESS TO PROPERTY INFORMATION.....	2
ITEM 4: CORPORATE STRUCTURE.....	2
ITEM 5: GENERAL DEVELOPMENT OF THE BUSINESS.....	3
ITEM 6: DESCRIPTION OF THE BUSINESS.....	4
ITEM 7: KAMI ROYALTY.....	10
ITEM 8: DIVIDENDS.....	10
ITEM 9: DESCRIPTION OF CAPITAL STRUCTURE.....	11
ITEM 10: MARKET FOR SECURITIES.....	11
ITEM 11: DIRECTORS AND OFFICERS.....	12
ITEM 12: LEGAL PROCEEDINGS.....	14
ITEM 13: INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS.....	15
ITEM 14: TRANSFER AGENT AND REGISTRAR.....	15
ITEM 15: MATERIAL CONTRACTS.....	15
ITEM 16: INTERESTS OF EXPERTS.....	15
ITEM 17: AUDIT COMMITTEE.....	16
ITEM 18: ADDITIONAL INFORMATION.....	17

## ITEM 1: CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION

Some of the statements contained in this document are forward-looking statements concerning anticipated developments in the Corporation's operations in future periods, planned exploration activities, adequacy of the Corporation's financial resources and other events or conditions that may occur in the future. Forward-looking statements are frequently, but not always, identified by words such as "expects", "anticipates", "believes", "intends", "estimates", "potential", "targeted", "plans", "possible", and similar expressions, or statements that events, conditions or results "will", "may", "could" or "should" occur or be achieved. Such forward-looking statements include, but are not limited to, those statements with respect to the Kami Royalty, Alderon Iron Ore Corporation, the Voisey's Bay Royalty, the Central Mineral Belt Royalty, Newfoundland and Labrador Refining Corporation, the price of commodities with respect to the previously mentioned projects and entities, the timing and amount of estimated future production, capital expenditures and reserves determination, that involve known or unknown risks, uncertainties and other factors, which may cause the Corporation's actual results, performance or achievements to be materially different from those projected, implied or foreseen by such forward-looking statements. Such factors include, among others, the actual results of current exploration activities, changes in project parameters as plans continue to be refined and access to capital.

Forward-looking statements are made based upon the reasonable beliefs, estimates, and opinions of management of the Corporation on the date the statements are made and, other than as required by applicable securities laws, the Corporation undertakes no obligation to update forward-looking statements if these beliefs, estimates and opinions or other circumstances should change. Caution should be used when placing undue reliance on forward-looking statements.

Unless otherwise noted, the information given herein is as of April 30, 2012.

## ITEM 2: CURRENCY

All currency references in this Annual Information Form are to Canadian dollars unless otherwise indicated.

## ITEM 3: ACCESS TO PROPERTY INFORMATION

As a royalty holder, the Corporation has limited access to properties and technical information in respect of which the Corporation holds royalty interests. The Corporation must generally rely principally on publicly available information regarding such properties and related mining operations and may not have legal rights to constant access to the properties or to a review of the data which was used to substantiate the technical information which has been publicly disclosed. In the future, the Corporation will generally be dependent on publicly available information in its preparation of required disclosures pertaining to properties and mining operations on the properties in respect of which the Corporation holds royalty interests. This Annual Information Form includes information regarding properties and mining operations which is based on information publicly disclosed by the owners or operators of the properties in respect of which the Corporation holds royalty interests.

## ITEM 4: CORPORATE STRUCTURE

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

Altius Minerals Corporation (the "Corporation" or "Altius") was incorporated as a private corporation under the name 730260 Alberta Inc. by certificate and articles of incorporation (the "Articles") issued pursuant to the provisions of the *Business Corporations Act* (Alberta) on March 5, 1997. The Articles were amended by certificate and articles of amendment dated June 12, 1997 to remove the "private

company" provisions and the restrictions on share transfers and to change the name of the Corporation to "Altius Minerals Corporation."

The head office of the Corporation is located at Suite 202 – 66 Kenmount Road, Box 8263 Station "A", St. John's, Newfoundland and Labrador A1B 3N4. Its registered office is located at 850, 901 – 9 Ave SW, Calgary, Alberta T2P 3C5.

#### 4.2 Inter-Corporate Relationships

The Corporation has two wholly-owned subsidiaries: Altius Resources Inc., which is incorporated under the laws of the Province of Newfoundland and Labrador; and Altius Investments Limited, which is incorporated under the laws of the Province of Ontario. The Corporation also holds 72.8% of the common shares in 2260761 Ontario Inc., a Corporation incorporated under the laws of the Province of Ontario.

The following list sets forth the Corporation and its subsidiaries, including the Corporation's equity interest in each subsidiary.

Altius Minerals Corporation	Parent	Holding company
Altius Resources Inc.	100%	Mineral exploration company
Altius Investments Limited	100%	Holding company
2260761 Ontario Inc.	72.8%	Holding company

### ITEM 5: GENERAL DEVELOPMENT OF THE BUSINESS

#### 5.1 Three Year History

Over the past three years, the Corporation has continued to evolve from a junior mineral exploration company into a financially strong, diversified mineral and resource-based project generation, royalty, and investment business.

The Corporation created much of its current strong financial position by selling its founding stake in Aurora Energy Resources Inc. ("Aurora") for gross proceeds of approximately \$208 million over a three year period commencing in 2006. Aurora held the Central Mineral Belt ("CMB") uranium properties located in Labrador. The Corporation also realized cash and share proceeds of approximately \$63 million from the sale of its 9.4% interest in International Royalty Corporation ("IRC") during the year ended April 30, 2010, and received share proceeds with a market value of approximately \$86 million at the time of transfer in exchange for its interest in the Kamistaitusset ("Kami") iron ore property located in western Labrador to Alderon Iron Ore Corporation ("Alderon") during the year ended April 30, 2011.

The Corporation has continued to embark upon various mineral exploration and resource based opportunities with a goal of attracting project level funding and operating partners with complementary technical and financial expertise. In these circumstances, the Corporation generally retains a minority project stake and royalty interests. As at April 30, 2012, the Corporation had eight active exploration alliances with various companies.

Some of these mineral exploration and resource opportunities have been developed as separately managed corporations in which the Corporation has retained a minority shareholding and/or royalty interests. The Corporation contributed exploration assets in return for a founding equity stake in Rambler Metals and Mining plc ("Rambler"), a public company carrying out advanced exploration and preliminary mine development planning of the historic Ming copper-gold project in the Baie Verte region of

Newfoundland. The interest in Rambler was sold during the year ended April 30, 2011. The Corporation is also a founding shareholder in Newfoundland and Labrador Refining Corporation (“NLRC”), a private corporation that proposed to construct a 300,000 barrel per day oil refinery in southeastern Newfoundland. NLRC was under creditor protection under the *Bankruptcy and Insolvency Act* (“BIA”) and is currently seeking an investor to acquire the assets. The Corporation also holds a 33% interest in Alderon. Alderon is conducting advanced exploration and evaluation work on its 100% owned Kami iron ore property located in western Labrador.

#### Year ended April 30, 2010

During the year ended April 30, 2010, the Corporation increased its stake in IRC, a diversified minerals royalty company, to a 9.4% interest or 8,924,972 common shares. Such common shares of IRC were subsequently acquired by Royal Gold Inc. (“Royal Gold”), through its wholly-owned subsidiary, RG ExchangeCo Inc., on February 22, 2010, pursuant to the terms of a court approved plan of arrangement with IRC.

The Corporation supported the Royal Gold proposal to acquire all of the shares of IRC in exchange for a combination of cash plus shares. As a result of the closing of the transaction, the Corporation received proceeds with a market value of \$63,132,000 including cash of \$37,520,000 and 529,297 exchangeable shares in RG ExchangeCo Inc, resulting in a pre-tax gain to the Corporation of \$28,413,000.

The Corporation entered into an agreement with a private company in November 2009 regarding its Kami iron ore project in western Labrador, Canada. A primary condition of the agreement was that the private company would form a new public company (“Newco”) that was to focus on the western Labrador iron ore mining district of Canada. In December 2009, the agreement was assigned to Alderon, a publicly traded company listed on the TSX Venture Exchange and the AMEX exchange. Under the terms of the agreement, Alderon was to incur exploration expenditures totaling \$5,000,000 over a two-year period and meet certain financing conditions to earn 100% of the Kami iron ore property. In exchange for the transfer, the Corporation was to retain a 3% gross sales royalty and receive approximately 32 million common shares of Alderon.

On November 20, 2009, the Supreme Court of Newfoundland and Labrador accepted NLRC’s proposal to creditors to sell or finance the refinery project during a standstill period and dismissed all further requests for creditor’s claim adjustments for voting purposes. NLRC was granted approximately 3 years to sell or finance its oil refinery project interest to satisfy all creditors’ claims. Efforts are continuing to secure an investor for the refinery project.

#### Year Ended April 30, 2011

During the year ended April 30, 2011, Alderon earned a 100% interest in the Kami iron ore project by meeting exploration expenditure and financing commitments and by delivering 32,285,006 common shares to the Corporation, representing approximately a 46% equity stake in Alderon and a 3% gross sales royalty.

Drill results reported by Alderon throughout the year continued to confirm the favorable iron ore resource potential indicated in earlier drilling by Altius. On April 5, 2011, Alderon released the results of an initial independent National Instrument 43-101 mineral resource estimate for the Kami project. The Watts, Griffis and McOuat Limited estimate includes an indicated iron ore resource of 490 million tonnes at 30.0 per cent iron and an additional inferred resource of 118 million tonnes at 30.3 per cent iron based on a cut-off grade of 20 per cent iron. Additional drilling was later conducted on the Rose North zone, which was not included in the initial resource estimate.

The Corporation co-invested with Cranberry Capital Inc. to form 2260761 Ontario Inc. to invest primarily in early stage mineral exploration companies with a goal of long term capital appreciation. The new company is managed independently by Paul van Eeden, the principal of Cranberry Capital Inc. who has a successful mining and investment industry track record. The Corporation's total investment in the new company consisted of \$25,007,000 in cash and the financial results of the company are included in the consolidated financial statements from the date initial investment.

#### Year Ended April 30, 2012

On September 8, 2011, Alderon released results of the Preliminary Economic Assessment ("PEA") study on the Rose Central Deposit of the Kami property completed by BBA Inc. located in Montreal, Quebec and the Stassinu Stantec Limited Partnership located in St. John's, Newfoundland and Labrador. The PEA demonstrates very attractive project economics. Based on a production rate of 8 million tonnes per year of iron ore concentrate at a grade of 65.5% iron and an iron recovery of 82.8%, the PEA shows a Net Present Value ("NPV") of US\$3.07 billion at a cash flow discount rate of 8%. The pre-tax internal rate of return ("IRR") for the project is 40.2%. The level of accuracy of the PEA is considered to be -20%/+30%. The PEA is currently based only on the development of the defined resources of the Rose Central deposit and not on the Rose North deposit.

On September 13, 2011 Alderon released the results of the initial NI 43-101 mineral resource estimate on the Rose North deposit of the Kami iron ore project. The inferred mineral resource estimate at Rose North totals 480 million tonnes at 30.3 per cent iron based on a cut-off grade of 20 per cent iron. The resource estimate for all three zones (Rose North, Rose Central and Mills Lake) within the Kami project is: 490 million tonnes at 30.0 per cent iron indicated and 598 million tonnes at 30.3 per cent iron inferred.

In December 2011, Alderon completed a non-brokered private placement of two million flow-through common shares at a price of \$3.00 per flow-through share for gross proceeds of \$6 million. The gross proceeds raised from the offering were used by Alderon for exploration expenditures on its Kami project, which will constitute Canadian exploration expenditures (as defined in the Income Tax Act (Canada)) and will be renounced for the 2011 taxation year. The Corporation did not participate in this financing.

In January 2012, Alderon closed an equity financing with Liberty Metals & Mining Holdings, LLC ("LMM"), a subsidiary of Liberty Mutual Group. LMM purchased 14,981,273 common shares of Alderon on a private placement basis for an aggregate purchase price of approximately \$40 million at a price per share of \$2.67. Alderon used the net proceeds of the placement primarily to fund the 2012 winter drilling program and commencement of the feasibility study for the Kami iron ore project, to secure long-lead equipment and for general and administrative expenses. The Corporation did not participate in this financing. As a result of these financings, the Corporation's interest in Alderon was reduced to approximately 33%.

Alderon recently completed infill drilling on the Rose North Zone to upgrade the resource category to be utilized in the feasibility study. It is anticipated that the feasibility study will be completed in the second half of 2012.

On April 13, 2012, Alderon signed a definitive subscription agreement with Hebei Iron and Steel Group Co. Ltd. ("Hebei") for a strategic partnership. Upon closing of the private placement, Hebei will acquire 25,828,305 common shares for gross proceeds to the Company of \$88,332,804, representing 19.9% of the issued and outstanding shares of Alderon, after giving effect to such issuance and the related exercise by Liberty of its pre-emptive right, and Liberty will acquire approximately 3,805,576 common shares at the for additional gross proceeds to Alderon of \$13 million.

The Corporation's ownership interest in Alderon, immediately after these transactions, will be approximately 25%.

On closing of the aforementioned subscription agreement, Hebei and Alderon will also enter into an arrangement pursuant to which Hebei will invest an additional \$105,667,196 in exchange for a direct 25% interest in the Kami Project. Hebei agrees to use its best efforts to assist in obtaining project debt financing for the Kami Project from financial institutions. Hebei also has agreed to purchase, upon the commencement of commercial production, 60% of the actual annual production from the Kami Project up to a maximum of 4.8 million tonnes of the first 8.0 million tonnes of iron ore concentrate produced annually at the Kami Project at near market prices.

All agreements with Hebei are subject to approvals from the government of the People's Republic of China.

The Corporation continued its exploration activity on other projects during the year, none of which appear to be material at this time.

## ITEM 6: DESCRIPTION OF THE BUSINESS

### 6.1 General

Altius is focused on the mining and resources sector through prospect generation, and the creation and acquisition of royalties and investments. The Corporation has a strong financial position with approximately \$162 million in cash and highly liquid marketable securities and no debt. Altius owns numerous exploration stage royalty interests, and has several active mineral exploration agreements principally in eastern Canada targeting a variety of mineral commodities. In addition, the Corporation holds investments in junior exploration and development stage companies.

The Corporation generally prefers to utilize project level joint venture agreements or subsidiary corporate structures related to the opportunities it helps to generate, which results in it carrying royalty interests and/or minority and non-operating project or equity interests. Since inception, the Corporation has entered into numerous joint ventures with industry partners from around the world. The primary objective of the Corporation is to build a portfolio of royalty and non-operating minority equity interests in resource based projects with "world-class" character.

The Corporation currently has 15 employees.

### **Royalty Stakes**

The Corporation holds one production stage royalty and several exploration/development stage royalties in properties that it has vended to exploration partners.

The Corporation holds an effective 0.3% NSR in the Voisey's Bay nickel-copper cobalt mine operated by Vale and located in eastern Labrador, Canada. The Corporation also holds several pre-development/exploration stage royalty interests in several mineral properties, including a 3% gross sales royalty ("GSR") on Alderon's pre-feasibility stage Kami iron ore project located in Western Labrador; a 2% GSR on Paladin's Central Mineral Belt uranium project; and a 2-4% sliding scale royalty on Northern Abitibi Mining Corp's ("Northern Abitibi") Viking gold project located in Newfoundland.

## **Founding Equity Stakes**

### ***NLRC***

The Corporation currently holds a 39.6% equity interest in NLRC, increased from an original 37.5% as a result of subsequent financings and share issuances. NLRC is a private company that was proposing to construct a new 300,000 barrel per day crude oil refinery at Southern Head, Placentia Bay in south eastern Newfoundland and Labrador, Canada. NLRC was operating under creditor protection under the BIA and currently is part-way through a three year standstill period whereby it is tasked with selling the assets or obtaining the required financing to complete the oil refinery project.

### ***Alderon***

The Corporation currently holds a 33% interest in Alderon, a Corporation conducting further exploration and evaluation work on the Kami iron ore property located in western Labrador. The Corporation received its equity stake in exchange for transfer of the Kami iron ore property during the year ended April 30, 2011.

See Item 5, “General Development of the Business” for additional information on Alderon and the Kami property.

## **Exploration and Royalty Creation**

The majority of the Corporation’s current resource exploration properties are located in the Province of Newfoundland and Labrador. The Corporation has exposure to gold, base metals, iron ore, and uranium through a varied equity and exploration portfolio that is partially funded by joint venture partners or through earn-in agreements. The Corporation prefers to enter into earn-in or joint venture mineral exploration agreements with various industry funding partners and continues to directly invest in new generative projects and initiatives with a goal of attracting partners. These agreements typically result in the Corporation holding minority project interests and royalties. Financing for the exploration of the Corporation’s mineral properties is provided partially from the Corporation’s own operating cash flows but also through earn-in/joint venture agreements with other exploration and mining companies.

The Corporation currently has eight active exploration agreements or joint alliances with various mining industry partners from around the world.

## **6.2 Risk Factors**

The following is a summary of significant business risks as they pertain to the outlook and conditions currently known to management which could have a material impact on the financial condition and results of the operations of the Corporation and its investments and royalty interests. The risks described are not the only ones faced by the Corporation and any risks in combination or individually could have a material adverse effect on the Corporation’s financial condition and results of operations.

*The Corporation's financial success is dependent upon the extent to which its current projects under development are successful in reaching profitable commercial operations.*

Profits from commercial operations will depend on a significant number of factors, including economic feasibility, changing market conditions, environmental and governmental regulations, labour availability, the cost of and the ability to attract external financial capital, and the ability to attract partners with sufficient technical expertise and relevant industry experience to further develop the various projects. Any failure to meet one or a combination of these factors may result in project delays or potential cancellation and the Corporation’s future operating results may be adversely affected.



*Royalty revenues are dependent on the operating and commercial success of third parties.*

The level of cash flows from producing royalties are subject to various economic factors, including the underlying commodity prices and smelting and other operating costs which are deducted from the net royalties. Royalty payments are highly dependent on the operating and commercial success of the underlying operating company. Various factors, such as commodity price, operating costs, financing costs, labour availability, labour stability, environmental and stakeholder relations or any combination thereof could make an underlying operation unprofitable. Although short-term losses are not expected to affect the decision to keep an operation open, prolonged operating losses could induce an operating company to close its operations, thereby eliminating such royalty revenue.

*The Corporation's vulnerability to changes in resource and commodity prices may cause its share price to be volatile and may affect the Corporation's financial results.*

Changes in the market price of commodities will significantly impact the Corporation's expected revenue from producing royalties. The Corporation's financial results will be sensitive to external economic criteria related to the commodity prices and a substantial risk will arise if there is a prolonged period of lower prices. Many factors beyond the Corporation's control influence the market price of commodities, including: global supply and demand; availability and costs of metal substitutes; speculative activities; international political and economic conditions; and production levels and costs in other producing countries.

*The probability of successfully progressing early stage projects is dependent on an ability to attract joint venture partners to share project expenditures and to provide additional technical expertise required to develop projects.*

If the Corporation is unable to attract partners to cost-share project expenditures and to provide additional technical expertise, the level of exploration the Corporation could achieve with limited personnel and limited financial resources may be adversely impacted. This could affect the likelihood of discovering future commercially feasible projects.

*Economic conditions and financial market liquidity may affect the ability of the Corporation to attract debt and equity investment necessary to complete major resource - based projects.*

Because of their size and scale, the success of some resource - based projects will depend on the ability of the Corporation, its partners, or its investments to raise the financial capital required to successfully construct and operate a project. This ability may be affected by general economic and market conditions, including the perceived threat or actual occurrence of an economic recession or liquidity issues. If market conditions are not favourable, major resource based projects could be cancelled or the expected rate of return to the Corporation may be significantly diminished.

*Should revenues be insufficient to cover regular operating costs, the Corporation may require additional equity or debt financing.*

In the event that revenues are insufficient to cover the Corporation's operating costs, there is no assurance that additional funding will be available to allow the Corporation to fulfill its obligations on existing exploration properties and development projects. Failure to obtain additional financing could result in delay or rationalization of planned exploration and the possible partial or total loss of the Corporation's interest in certain properties.

*Compliance with current and future government regulations may cause the Corporation to incur significant costs and slow its growth.*

The Corporation's mineral exploration activities are subject to extensive governmental regulations with respect to such matters as environmental protection, health, safety and labour; mining law reform; restrictions on production or export, price controls and tax increases; aboriginal land claims; and expropriation of property in the jurisdictions in which it operates. Compliance with these and other laws and regulations may require the Corporation to make significant capital outlays which may slow its growth by diverting its financial resources. The enactment of new adverse regulations or regulatory requirements or more stringent enforcement of current regulations or regulatory requirements may increase costs, which could have an adverse effect on the Corporation. The Corporation cannot give assurances that it will be able to adapt to these regulatory developments on a timely or cost effective basis. Violations of these regulations and regulatory requirements could lead to substantial fines, penalties or other sanctions.

*The Corporation's operations and prospects could be harmed if the Corporation loses key personnel or is unable to attract and retain additional personnel.*

The Corporation's continued success is highly dependent on the retention of key personnel who possess business and technical expertise and are well versed in the various projects underway and under consideration. The number of persons skilled in the acquisition, exploration and development of natural resource and mining projects is limited and competition for such persons is intense. If the Corporation's business activity grows, additional key financial, administrative and operations personnel as well as additional staff will be required. Although the Corporation believes it will be successful in attracting, training and retaining qualified personnel, there can be no assurance of such success. If the Corporation is not successful in attracting, training and retaining qualified personnel, the efficiency of operations may be affected. Additionally, should any key person decide to leave then the success of one or more of the projects under consideration could be at risk.

*The Corporation is required to obtain and renew governmental permits and licenses in order to conduct current and future operations, which is often a costly and time-consuming process.*

In the ordinary course of business, the Corporation will be required to obtain and renew governmental permits and licenses for the operation and expansion of existing operations or for the commencement of new operations. Obtaining or renewing the necessary governmental permits is a complex and time-consuming process. The duration and success of the Corporation's efforts to obtain and renew permits and licenses are contingent upon many variables not within its control including the interpretation of applicable requirements implemented by the permitting or licensing authority. The Corporation may not be able to obtain or renew permits and licenses that are necessary to continue its operations or the cost to obtain or renew permits and licenses may exceed what the Corporation expects. Any unexpected delays or costs associated with the permitting and licensing process could delay the development or impede operations, which may adversely affect the Corporation's revenues and future growth.

*The risks and hazards associated with the Corporation's projects may increase costs and reduce profitability in the future.*

Risks and hazards associated with the Corporation's projects include, but are not limited to: environmental hazards; industrial accidents; metallurgical, refining and other processing problems; unusual and unexpected geological formations; periodic interruptions due to inclement or hazardous weather conditions or other acts of nature; mechanical equipment and facility performance challenges; and unavailability of materials, equipment and personnel. These risks may result in, among others: damage to, or destruction of, properties or production facilities upon which the Corporation's value is dependent; personal injury or death; environmental damage; delays; increased production costs; asset write downs; monetary losses; and legal liability.

The Corporation cannot be certain that current insurance policies will cover the risks associated with operations or that it will be able to maintain insurance to cover these risks at affordable premiums. The Corporation might also become subject to liability for pollution or other hazards against which it cannot insure or against which the Corporation may elect not to insure because of premium costs or other reasons. Losses from such events may increase costs and decrease profitability.

*If resource and reserve estimates are not accurate, production may be less than estimated which would adversely affect the Corporation's financial condition and result of operations.*

Mineral resource estimates are imprecise and depend on geological analysis based partly on statistical inferences drawn from drilling, which may prove unreliable, and assumptions about operating costs and metal prices. The Corporation cannot be certain that the resource estimates are accurate and cannot guarantee that it will recover the indicated quantities of metals.

In addition, all data provided on royalty interests is derived from information available solely from the public record. If this underlying data is inaccurate, the Corporation's financial condition and result of operations could be adversely affected.

*The Corporation relies on third parties for operational and strategic decisions with respect to properties for which certain interests are held.*

The Corporation's objective is to create joint ventures or corporate structures related to the opportunities it generates, which results in the Corporation carrying minority and non-operating project or equity interests and/or royalty interests. In certain circumstances the Corporation must rely on the decisions and expertise of third parties regarding operational matters for properties, equity interests and other assets including: whether, when and how to commence permitting; feasibility analysis; facility design and operation, processing, plant and equipment matters; and the temporary or permanent suspension of operations. In some instances, it may be difficult or impossible for the Corporation to ensure that the properties and assets are operated in its best interest.

## ITEM 7: KAMI ROYALTY

The Corporation holds a 3% gross sales royalty on Alderon's Kami property ("Kami Royalty") and also has a 33% equity interest in Alderon, a publicly traded company that holds the Kami property. National Instrument 41-101("NI 43-101") requires disclosure of technical information with respect to material mineral projects. This information is included in Schedule "A" to this AIF.

## ITEM 8: DIVIDENDS AND DISTRIBUTIONS

During the Corporation's three most recently completed financial years, no dividends or distributions have been paid to shareholders of the Corporation. The future payment of dividends or distributions will be dependent upon the financial requirements to fund future growth, the financial condition of the Corporation and other factors the Corporation's board of directors (the "Board") may consider appropriate in the circumstances. The Corporation is not aware of any restrictions that could prevent the paying of dividends or distributions.

## ITEM 9: DESCRIPTION OF CAPITAL STRUCTURE

### *Authorized and Issued Capital*

The Corporation is authorized to issue an unlimited number of common shares and an unlimited number of preferred shares. As at April 30, 2012, there were 28,759,675 common shares, and no preferred shares issued and outstanding.

### *Common Shares*

The holders of common shares are entitled to dividends if, as and when declared by the Board, to one vote per share at meetings of common shareholders and, upon liquidation, to receive such assets as are distributable to the holders of common shares.

### *Preferred Shares*

The preferred shares may be issued in one or more series, each consisting of a number of preferred shares as determined by the Board who also may fix the designations, rights, privileges, restrictions and conditions attaching to the shares of each series of preferred shares. The preferred shares, with respect to payment of dividends and distribution of assets in the event of voluntary or involuntary liquidation, dissolution or winding-up or any other distribution of the assets, rank on a parity with the preferred shares of every other series and shall be entitled to preference over the common shares and the shares of any other class ranking junior to the preferred shares.

## ITEM 10: MARKET FOR SECURITIES

The Corporation's common shares trade on the Toronto Stock Exchange under the trading symbol ALS. The common shares were listed for trading on the Toronto Stock Exchange on January 15, 2007, prior to which they were listed for trading on the TSX Venture Exchange.

### 4.1 Price Range and Trading Volume

The following table sets forth the reported high and low sale prices and the trading volumes of the Corporation's common shares for each month in the fiscal year ending April 30, 2012.

Month	Price Range		Trading Volume
	High \$	Low \$	
May 2011	12.96	10.69	830,394
June 2011	12.05	10.35	714,504
July 2011	12.92	11.20	330,754
August 2011	12.21	10.05	971,504
September 2011	12.15	10.26	951,620
October 2011	11.84	10.63	646,750
November 2011	11.32	10.52	556,433
December 2011	11.27	10.52	597,397
January 2012	11.52	10.76	362,547
February 2012	12.83	11.21	396,031
March 2012	12.46	11.40	383,826
April 2012	12.25	11.00	780,863

## ITEM 11: DIRECTORS AND OFFICERS

### 11.1 Name, Address, Occupation and Security Holding

The following table sets forth the names, the municipalities of residence, the positions held with the Corporation and the principal occupations of each of the directors and executive officers:

Name and Province and Country of Residence Position and Date of Appointment	Principal occupation
John Baker <sup>2</sup> Newfoundland and Labrador, Canada Director since June 1997, Chairman since November 2006	Partner, Ottenheimer & Baker, a law firm
Brian Dalton Newfoundland and Labrador, Canada President and CEO, Director since June 1997	President and CEO of the Corporation
Frederick Mifflin <sup>1,2,3,4</sup> Ontario, Canada Director since November 2006	Partner, Blair Franklin Capital Partners Inc., a financial advisory and investment management firm
Susan Sherk <sup>1,2,3</sup> Newfoundland and Labrador, Canada Director since November 2006	Senior Human Environmental Consultant, AMEC Americas Limited, an international project management and services corporation
Donald Warr <sup>1,4</sup> Newfoundland and Labrador, Canada Director since November 2006	Partner, Blackwood & Warr Chartered Accountants
Jamie Strauss <sup>3,4</sup> London, United Kingdom Director since October 2010	Director, Strauss Partners, a mining finance boutique firm

<b>Name and Province and Country of Residence Position and Date of Appointment</b>	<b>Principal occupation</b>
Ben Lewis Newfoundland and Labrador, Canada Chief Financial Officer since October 2006	Chief Financial Officer of the Corporation
Chad Wells Newfoundland and Labrador, Canada Vice President, Corporate Development/Corporate Secretary since February 2003	Corporate Secretary and Vice President, Corporate Development of the Corporation
Lawrence Winter Newfoundland and Labrador, Canada Vice-President, Exploration since October 2006	Vice-President, Exploration of the Corporation

**Notes:**

- (1) Member of the Audit Committee.
- (2) Member of the Compensation Committee.
- (3) Member of Governance Committee.
- (4) Member of Investment Committee.

Except as otherwise noted in the footnote below<sup>1</sup>, each of the directors and the officers of the Corporation has held the principal occupation set forth opposite his or her name for the past five years.

As at the date of this AIF, the directors, executive officers and key employees of the Corporation, as a group, own beneficially, directly or indirectly, or exercise control or direction over 2,220,426 common shares or 7.61% of the issued and outstanding common shares.

Each director holds office until the next annual general meeting of shareholders or until his or her successor is elected or appointed.

## **11.2 Corporate Cease Trade Orders or Bankruptcies**

During the past ten years, except as noted below, none of the directors, executive officers or shareholders holding a sufficient number of securities to affect materially the control of the Corporation is or has been a director or executive officer of any other company that while such person was acting in that capacity: (a) was the subject of a cease trade order or similar order or an order that denied such company access to any exemption under securities legislation for a period of more than 30 consecutive days, (b) was subject to an event that resulted, after the director or executive officer ceased to be a director or executive officer, in such company being the subject of a cease trade or similar order or an order that denied such company access to any exemption under securities legislation, for a period of more than 30 consecutive days, or (c) within a year of that person ceasing to act in that capacity, such company 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.

John Baker, Chairman, and Brian Dalton, CEO, also serve as directors of NLRC, a 39.6% owned equity investment of the Corporation. In response to a bankruptcy petition initiated by a contractor, NLRC sought and was granted creditor protection under the BIA on June 24, 2008. This protection enabled NLRC, under the supervision of a trustee, to formulate a proposal for restructuring and to continue its

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<sup>1</sup> Mr. Strauss has held various financial brokerage positions in London for the past five years.

efforts to attract financing and/or partners for the refinery project. The initial period of creditor protection granted was 30 days, and was later extended until October 17, 2008. NLRC filed a proposal with the Trustee and Official Receiver on October 17, 2008 and an amended Proposal on or about November 6, 2008 (the “Proposal”). The Proposal was approved by Order of the Supreme Court of Newfoundland and Labrador on November 20, 2009. Altius Resources Inc. filed a Proof of Claim in the amount of \$30,099,254.52 - \$30,092,865 of which is a secured claim as a result of debenture dated December 20, 2007 and registered under the PPSA on February 19, 2008. Under the Proposal, NLRC is given a continued period of time, up to 3 years, to search for an equity partner, buyer or funding (the “Standstill Period”). During the Standstill Period, funds which would otherwise be allocated to Altius, as secured creditor, will be utilized to maintain the existence of regulatory approvals and to fund the cost of a reduced equity solicitation process. The Proposal further states that, upon Project commencement, creditors will receive 100% of the amount owing to them plus interest within 30 days of the Date of Restructuring defined as the earlier of the following: (i) the date at which all or substantially all of the shares or all or substantially all of the non-tangible assets of NLRC are sold, (ii) the date at which financing of the NLRC Project is achieved, and (iii) the date at which construction of the NLRC Project commences.

### **11.3 Penalties or Sanctions**

None of the directors, executive officers or shareholders holding a sufficient number of securities to affect materially the control of the Corporation has been subject to (a) any penalties or sanctions by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority or (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

### **11.4 Personal Bankruptcies**

During the past ten years, none of the directors, executive officers or shareholders holding a sufficient number of securities to affect materially the control of the Corporation has 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 such director, executive officer or shareholder.

### **11.5 Conflicts of Interest**

Some of the directors and officers are or may be engaged in business activities on their own behalf and on behalf of other corporations and situations may arise where some of the directors may be in potential conflict of interest with the Corporation. Conflicts, if any, will be subject to the procedures and remedies under the *Business Corporations Act* (Alberta).

## **ITEM 12: LEGAL PROCEEDINGS**

Other than the following, the Corporation and its subsidiaries are not a party to any material legal proceedings.

On October 1, 2008, the Corporation was served with a statement of claim issued by BAE Newplan Limited (“BAE”), a wholly-owned subsidiary of SNC Lavalin Inc. in the Supreme Court of Newfoundland and Labrador. In the statement of claim, BAE claims damages, including punitive and exemplary damages, interest and costs against the Corporation, the Corporation’s wholly owned subsidiary, Altius Resources Inc., the directors of the Corporation, and the directors of NLRC. In

particular, BAE claims \$20,594,000, which is also the amount of billing alleged as outstanding from NLRC to BAE for engineering services.

The directors of each of NLRC, Altius Minerals and Altius Resources brought applications seeking an order removing or striking them as directors from the within action. The Supreme Court of Newfoundland and Labrador struck out portions of the statement of claim as against some of the directors and by way of decision dated April 2, 2012, the Newfoundland and Labrador Court of Appeal dismissed the entirety of the claim as against all of the directors of NLRC, Altius Minerals and Altius Resources. BAE has filed an application for leave to appeal to the Supreme Court of Canada.

The Corporation believes this claim is without merit and no provision has been recognized for this claim. The Corporation's defense of the claim is ongoing and a date has not yet been set for the trial of the matter.

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

There are no material interests, direct or indirect, of any director, executive officer, or any person or company who beneficially owns, directly or indirectly, more than 10% of the outstanding common shares or any known associate or affiliate of such persons, in any transaction during the three most recently completed financial years or during the current financial year which has materially affected or is reasonably expected to materially affect the Corporation or a subsidiary of the Corporation.

### ITEM 14: TRANSFER AGENT AND REGISTRAR

Equity Financial Trust Company, through its office in Toronto, Ontario, is the transfer agent and registrar for the Corporation's common shares.

### ITEM 15: MATERIAL CONTRACTS

The Corporation owns a 3% gross sales royalty in Alderon's Kami project as described in item 7: "Kami Royalty".

In the normal course of business, the Corporation enters into and maintains several earn-in agreements or exploration alliances with other exploration companies to provide technical support and to cost – share in exploration expenditures. These agreements normally result in the Corporation holding a reduced ownership in the mineral property and holding a royalty interest in any future potential mining revenues. While these agreements are not individually material, any of them could become material pending a significant mineral discovery.

### ITEM 16: INTERESTS OF EXPERTS

Other than transactions carried out in the ordinary course of business of the Corporation or its subsidiaries, none of the directors or executive officers of the Corporation, any shareholder directly or indirectly beneficially owning, or exercising control or direction over, more than 10% of the outstanding Common Shares, nor an associate or affiliate of any of the foregoing persons has had, during the three most recently completed financial years of the Company or during the current financial year, any material interest, direct or indirect, in any transactions that materially affected or would materially affect the Company or its subsidiaries.



Information regarding the Kami Royalty included in this AIF is based upon the Technical Report prepared by Alderon effective October 26, 2011. This Technical Report, prepared at the request of Alderon, was authored by Angelo Grandillo, Eng, M.Eng. of BBA, Paul Deering, P. Eng., P. Geo. of Stantec, Michael Kociumbas, B.Sc., P. Geo. of WGM, and Richard W. Risto, M.Sc., P. Geo. of WGM. All of the parties are independent of the Corporation and do not hold in excess of one percent of the Corporation's outstanding securities.

Deloitte & Touche LLP is the auditor of the Corporation and is independent of the Corporation within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Newfoundland and Labrador.

## ITEM 17: AUDIT COMMITTEE

The purpose of the Corporation's audit committee is to provide assistance to the Board in fulfilling its legal and fiduciary obligations with respect to matters involving the accounting, auditing, financial reporting, internal control and legal compliance functions of the Corporation. It is the objective of the audit committee to maintain free and open communications among the Board, the independent auditors and the financial and senior management of the Corporation.

The full text of the audit committee's charter is included as Schedule "B" to this AIF.

### 17.1 Composition of the Audit Committee

The audit committee is comprised of Susan Sherk, Fred Mifflin and Don Warr. All members are financially literate and are independent, as defined under Section 1.4 and 1.5 of National Instrument 52-110 *Audit Committees* ("NI 52-110").

### 17.2 Relevant Education and Experience

#### **Donald Warr**

Mr. Warr is a chartered accountant with over 40 years of experience in providing accounting and financial services. He has been a partner in the firm of Blackwood & Warr Chartered Accountants since 1992. Prior to 1992, Mr. Warr was a partner with a national public accounting firm. Mr. Warr was the Chief Financial Officer of the Corporation from February 2004 to October 2006.

#### **Susan Sherk**

Ms. Sherk is a senior consultant specializing in social-economic projects with AMEC Americas Limited, an international project management and services company. Ms. Sherk's past positions include Assistant Deputy Minister with the Government of the Province of Newfoundland and Labrador and management positions with Michelin Tires Canada, Mobil Oil Canada and Mobil Corporation.

#### **Frederick Mifflin**

Mr. Mifflin is a Partner of Blair Franklin Capital Partners Inc., an independent financial advisory and investment management firm. From 1989 to 2006, Mr. Mifflin was employed by BMO Capital Markets Inc. in various executive positions. Mr. Mifflin holds a B. Comm. (Honours) degree from Queen's University, an M.B.A. from The University of Chicago and is a graduate of the Advanced Management Program of the Harvard Business School. Mr. Mifflin is also a director accredited by the Institute of Corporate Directors.

### 17.3 Pre-Approval Policies and Procedures

Under its terms of reference, the audit committee is required to review and pre-approve the objectives and scope of the audit work to be performed by the Corporation's external auditors and their proposed fees. In addition, the audit committee is required to review and pre-approve all non-audit services which the Corporation's external auditors are to perform.

Pursuant to these procedures since their implementation, all of the services provided by the Corporation's external auditors relating to the fees reported as audit, audit-related, tax and all other services have been approved by the audit committee.

### 17.4 Audit Fees

The aggregate fees billed by the external auditors in the years ending April 30, 2012 and April 30, 2011 for audit services were \$218,315 and \$167,008 respectively.

### 17.5 Tax Fees

The aggregate fees billed by the external auditors in the years ending April 30, 2012 and April 30, 2011, for tax compliance, tax advice and tax planning services were \$107,291 and \$97,854, respectively.

### 17.6 Audit Related Fees

The aggregate fees billed by the external auditors in the years ending April 30, 2012 and April 30, 2011, for all audit-related fees were \$nil and \$nil, respectively.

### 17.7 All Other Fees

No other fees were billed by the external auditors in the years ending April 30, 2012 and April 30, 2011.

## ITEM 18: ADDITIONAL INFORMATION

Additional information relating to the Corporation may be found on the System for Electronic Document Analysis and Retrieval (SEDAR) at [www.sedar.com](http://www.sedar.com).

Additional information, including regarding directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, is contained in the Corporation's management information circular for its most recent annual meeting of shareholders that involved the election of directors. Additional information is also provided in the Corporation's financial statements and Management's Discussion & Analysis for its most recently completed financial year.

## SCHEDULE "A"

### KAMI ROYALTY

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#### ITEM 7: KAMI ROYALTY

The Corporation holds a 3% gross sales royalty on Alderon's Kami property ("Kami Royalty") and also has a 33% equity interest in Alderon, a publicly traded company.

National Instrument 41-101("NI 43-101") requires disclosure of technical information with respect to material mineral projects. The information contained in this AIF is primarily extracted from a NI 43-101 technical report prepared by Alderon (the "Kami Technical Report") with an effective date of October 26, 2012, and general information available in the public domain including Alderon annual reports, Alderon annual information forms, press releases, and information available on Alderon's website.

The following represents a brief summary of information contained in the Technical Report dated effective October 26, 2011 and prepared by Angelo Grandillo, Eng, M.Eng. of BBA, Paul Deering, P. Eng., P. Geo. of Stantec, Michael Kociumbas, B.Sc., P. Geo. of WGM, and Richard W. Risto, M.Sc., P. Geo. of WGM;. The Technical Report was commissioned at the request of Alderon management. Unless specifically noted otherwise, the following disclosure regarding the Kami Property has been prepared under the authority and supervision and with the consent of the authors, each a "qualified person" within the meaning of NI 43-101, and, in some cases, is a direct extract from the Technical Report. Certain information noted in the summary below is noted as having arisen subsequent to the effective date of the Technical Report and therefore has not been confirmed by the authors of the Technical Report. The full Technical Report is available under the Company's corporate profile on SEDAR at [www.sedar.com](http://www.sedar.com).

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

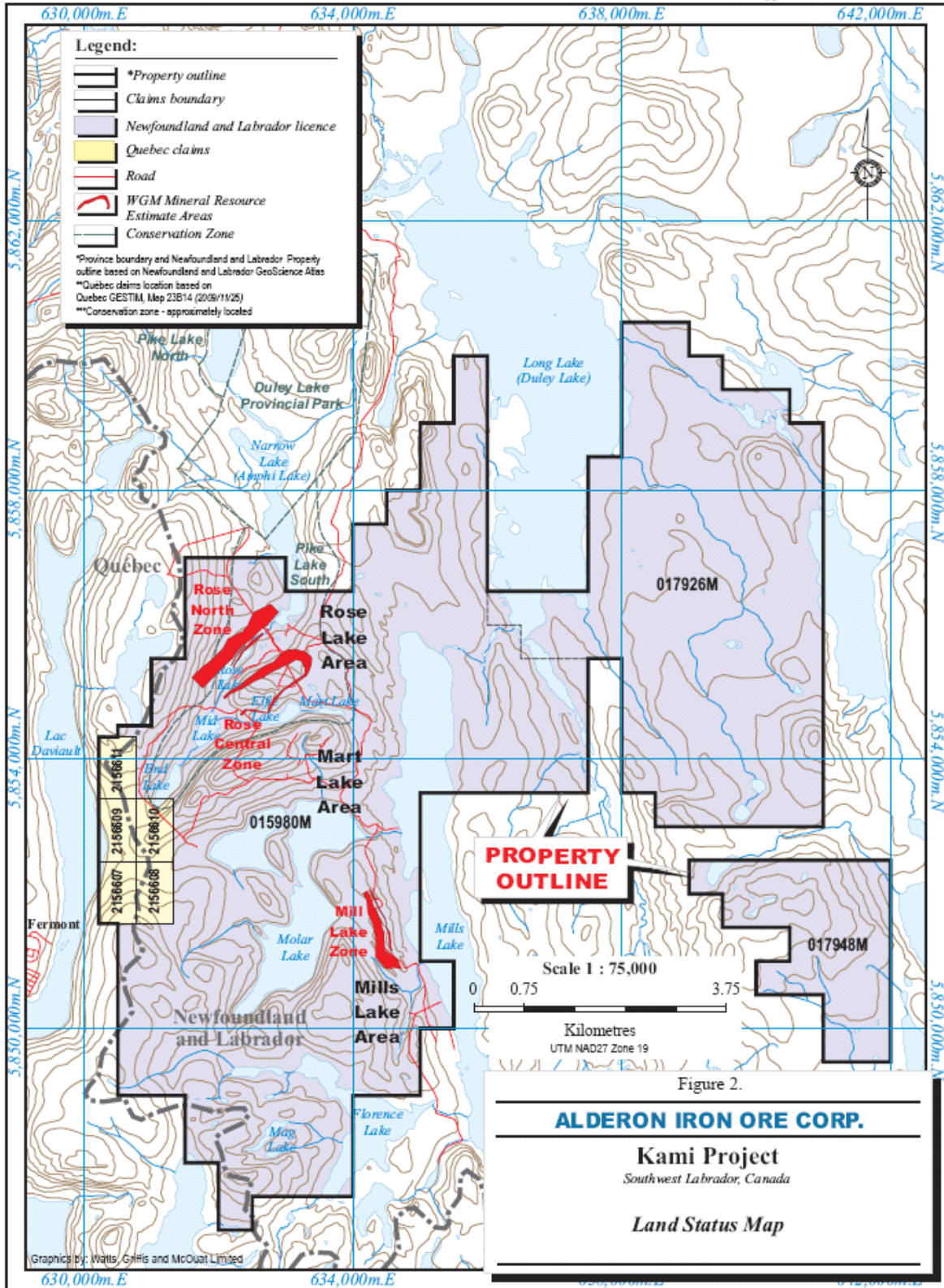
##### *Property Location*

The Property is located in Western Labrador. It is approximately 10 km southwest from the Town of Wabush, Newfoundland and Labrador and immediately adjacent (east) of the town of Fermont in Québec. The Property perimeter is approximately 6 km southwest from the Wabush Mines mining lease. The Property in Labrador consists of two non-contiguous blocks and spans an area that extends about 12 km east-west and 13 km north-south in NTS map areas 23B/14 and 15, and centered at approximately 52°49'N latitude and 67°02'W longitude. The location of the Property and the mineral resource areas are illustrated on Figure 1 below.

**FIGURE 1  
KAMI PROPERTY MAP**



ADV KAM / ADV 12, License, Map.cdr  
Last revision date: Wednesday 19 October, 2011



### *Property Description and Ownership*

Alderon acquired a 100% interest in the Property on December 6, 2010 from the Corporation. The purchase is subject to a 3% gross sales royalty payable in favour of the Corporation. The Property is located in Labrador, however, as at the effective date of the Technical Report, Alderon also held a group of contiguous licences in Québec in order to cover mineral rights along the provincial borders which cross the west side of the Property. Subsequent to the effective date of the Technical Report, Alderon abandoned all the mineral land holdings in Québec and references in this summary to the Kami Property include the Québec licences. For the purpose of the PEA, all mining and processing operations will take place in the Province of Newfoundland and Labrador. According to the claim system registry of the Government of Newfoundland and Labrador, the Property is registered to Alderon. The Property in Labrador includes three map-staked licences, namely 015980M, 017926M and 017948M, totaling 305 claim units covering 7,625 hectares. Surface rights on the acquired lands are held by the provincial governments, but may be subject to First Nations Rights. Table 1 provides details of the current mineral land holdings in Labrador.

**TABLE 1: KAMISTIATUSSET PROPERTY IN LABRADOR**

<b>License</b>	<b>Claims</b>	<b>Area (ha)</b>	<b>NTS Areas</b>	<b>Issuance Date</b>	<b>Renewal Date</b>	<b>Report Date</b>
015980M	191	4,775	23B14 23B15	29-Dec-04	29-Dec-14	27-Feb-13
017926M	92	2,300	23B15	30-Aug-10	30-Aug-15	29-Oct-12
017948M	22	550	23B15	10-Sep-10	10-Sep-15	09-Nov-12
<b>Total</b>	<b>305</b>	<b>7,625</b>				

### *Permitting*

Alderon, for its summer 2010 program, acquired a provincial exploration permit (E100083) from the government of Newfoundland and Labrador that covered drilling, geophysics and land access including a fording permit for five crossings. Alderon was also granted a municipal letter of permission from the town of Labrador City. This letter (No. 10-284) noted that the land is zoned Mining Reserve Rural and mineral exploration is a permitted use in this zone. This letter allowed for exploration and a fuel cache subject to certain conditions outlined in a letter dated June 10, 2010. The Labrador City letter specifies the need to respect wetlands and minimize waterfowl habitat disturbance. Alderon also was issued a permit allowing cutting of 300 cords of wood.

The provincial exploration permit, the municipal letter of permission and a water use licence were renewed to provide for the 2011 winter program.

For the 2011 summer program, Alderon applied for and received provincial exploration permit (E110091) from the Government of Newfoundland and Labrador that covered the drilling, geophysics and land access until December 31, 2011. The water use licence was renewed again for this program. Exploration and fuel cache under specific conditions are allowed in this permit dated May 30, 2011. The need to respect wetland and minimize waterfowl habitat disturbance was again specified.

Subsequent to the completion of the Technical Report Alderon applied for and received provincial exploration permit (E110260) from the Government of Newfoundland and Labrador that covers the drilling, geophysics and land access until April 30, 2012 and will allow Alderon to complete its winter 2012 drilling program.

All exploration work has been conducted in Newfoundland and Labrador so no permits were required from Québec.

### *Environmental Setting*

There are two types of sensitive or special areas in the vicinity of the project at the Kami site: a Provincial Park Reserve and a Wetland Stewardship Zone consisting of several management units.

Provincial Park Reserves protect areas with important natural features and landscapes. These areas are part of a provincial initiative to protect representative portions of all the different ecoregions within the province of Newfoundland and Labrador. These areas have no day use or camping facilities. The Duley Lake Provincial Park Reserve is approximately 7 km<sup>2</sup> and is located approximately 90 m from the proposed location of the Rose North Waste Rock Disposal Area, 1.1 km from Rose Central pit, and 10 km from Labrador City.

A Wetland Stewardship Zone agreement was signed by the Town of Labrador City and the Newfoundland and Labrador Department of Environment and Conservation in 2005. This agreement pledged their commitment to conservation and protection of wetlands within the zone in consultation with the Provincial Wildlife Division. This was formalized in 2010 with the development of a Habitat Conservation Plan. The Plan identifies eight Management Units within the Labrador City Wetland Stewardship Zone. The Town has committed to using the Habitat Conservation Plan as a guide to best management practices in and around the Stewardship Zone and Management Units including use of riparian buffers around all water bodies and marsh areas with the Units (Town of Labrador City and Eastern Habitat Joint Venture 2010). As such, exploration activities in these Management Units are subject to review by the Municipality and Wildlife Division and have been subject to environmental assessment under provincial regulations; to date, exploration activities have been approved in accordance with the limitations of working in a Management Unit.

There are a number of basic cottages on the Property along various rivers and lakes.

### *Community Relations*

Alderon has been engaging five Aboriginal groups with asserted land claims or traditional territories in proximity to the Kami Property: Innu Nation, NunatuKavut Community Council ("NCC"), Uashat mak Mani-Utenam, Matimekush-Lac John and Naskapi Nation of Kawawachikamach.

Alderon began its Aboriginal engagement by negotiating a Memorandum of Understanding ("MOU") with the Innu Nation which was signed on August 11, 2010. The MOU between the Innu Nation of Labrador and Alderon provides a framework for Alderon and the Innu Nation to work together to establish a long term, mutually beneficial, cooperative and productive relationship. It also provides the parties with a process for which the Innu Nation can identify and provide Innu Nation businesses and members an opportunity to participate in the exploration activities. During a meeting held in Montreal with Labrador Innu representatives on May 23, 2011, Alderon outlined their exploration program. The Labrador Innu expressed no concern about the exploration activities planned for 2011. On September 27, 2011, Alderon met with representatives of the Innu Nation to advance discussions surrounding the conditions outlined in the MOU.

Consultation efforts with the Québec communities of Uashat mak Mani-Utenam, Matimekush-Lac John, and Naskapi Nation of Kawawachikmach began on January 12, 2011, with each community receiving a letter introducing the Company, providing an overview of its exploration plans including a map, and providing contact information for any questions or concerns they may have related to Alderon's

exploration efforts. These letters were translated into French for the communities of Uashat mak Mani-Utenam and Matimekush-Lac John. In the letter, Alderon extended offers to meet and address any questions or concerns the Québec communities may have, and to provide additional information on Alderon's 2011 exploration plans with a goal of building respectful relationships. In January 2011, Alderon met at separate occasions with the Chief of Matimekush-Lac John, and a representative from Uashat mak Mani-Utenam, at which time Alderon provided a more detailed overview of Alderon and its exploration efforts of the Property.

In February 2011, additional letters were sent to the Québec Innu communities of Uashat mak Mani-Utenam and Matimekush-Lac John, inviting them to meet with Alderon in Toronto during a conference in March 2011. A meeting was held in Toronto between the Chief, a councillor of Uashat mak Mani-Utenam and a legal representative from the community. At that time there were no concerns raised regarding the exploration component of Alderon's program. During the meeting, the Chief expressed an interest in negotiating a MOU with Alderon. Alderon forwarded a copy of a draft MOU to the Uashat representatives on March 23, 2011 and there has been ongoing communication between the two parties since then. On May 11, 2011, Alderon met with Uashat mak Mani-Utenam legal counsel and a representative of the community to discuss their concerns with Alderon's exploration program. Alderon also met with councillors and legal counsel from Uashat on August 16 and September 29, 2011 to discuss the next steps in advancing discussions.

In addition to consultative efforts associated with exploration activities, Alderon has actively sought to engage and provide support to each group to aid their participation in the ongoing environmental assessment process. Each group has been requested to cooperate with Alderon in obtaining a thorough understanding of their contemporary traditional land and resource use activities in proximity to the project area.

Alderon will continue to engage all Aboriginal groups and communicate with stakeholders who have an interest in the Property and Alderon's activities and who may potentially be affected by project activities.

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

#### *Access*

The Property is accessible from Labrador City/Wabush, Newfoundland via 4x4 vehicle roads. All-Terrain Vehicle ("ATV") trails enable access to the remainder of the Property. Wabush is serviced daily by commercial airline from Sept-Îles, Montreal and Québec City and also by flights from points east.

#### *Climate*

The climate in the region is typical of Western Labrador (sub-Arctic climate). Winters are harsh, lasting about six to seven months with heavy snow from December through April. Summers are generally cool and wet; however, extended daylight enhances the summer workday period. Early and late winter conditions are acceptable for ground geophysical surveys and drilling operations. The prevailing winds are from the west and have an average of 14 km per hour, based on 30 years of records at the Wabush Airport.

#### *Local Resources and Infrastructure*

The Property is adjacent to the two towns of Labrador City, 2006 population 7,240 and Wabush, population 1,739. Together these two towns are known as Labrador West. Labrador City was founded in

the 1960s to accommodate the employees of the Iron Ore Company of Canada. A qualified work force is located within the general area due to the operating mines and long history of exploration in this region.

Although low cost power from a major hydroelectric development at Churchill Falls to the east is currently transmitted into the region for the existing mines operations, the current availability of additional electric power on the existing infrastructure in the region is limited. Therefore, Alderon has already begun discussions with local utilities to secure electric power for the Project. A study has been done, as part of the PEA, to evaluate the options for supplying power to the site. The Kami site is also located in proximity to other key services and infrastructure. The Project will include a rail loop and a connection to the QNS&L Railway for transportation of product to port. Fresh water sources on the site are plentiful, although the plan is to maximize recycling and minimize dependence on fresh water. A preliminary site plan has been developed as part of the PEA, which indicates that there are enough barren areas on the site to permit permanent storage of waste rock and tailings.

### *Physiography*

The Property is characterized by gentle rolling hills and valleys that trend northeast-southwest to the north of Molar Lake and trend north-south to the west of Molar Lake, reflecting the structure of the underlying geology. Elevations range from 590 m to 700 m.

The Property area drains east or north into Long Lake. A part of the Property drains north into the Duley Lake Provincial Park before draining into Long Lake.

In the central Property area, forest fires have helped to expose outcrops; yet the remainder of the Property has poor outcrop exposure. The cover predominantly consists of various coniferous and deciduous trees with alder growth over burnt areas.

### *History*

The earliest geological reconnaissance in the southern extension of the Labrador Trough within the Grenville Province was in 1914, by prospectors in their search for gold. Several parties visited the area between 1914 and 1933, but it was not until 1937 that the first geological map and report was published. The metamorphosed iron formation in the vicinity of Wabush Lake was first recognized by Dr. J.E. Gill in 1933. A few years later, the Labrador Mining and Exploration Co. Ltd. (“**LM&E**”) evaluated the iron formation, but decided it was too lean for immediate consideration.

In 1949, interest in the Carol Lake area by LM&E was renewed and geological mapping was carried out in the Long Lake - Wabush Lake area by H.E. Neal for IOCC. The work was done on a scale of 1"=1/2 mi. and covered an area approximately 8 km wide by 40 km long from Mills Lake northward to the middle of Wabush Lake. This work formed part of the systematic mapping and prospecting carried on by LM&E on their concession. Concentrations of magnetite and specularite were found in many places west of Long Lake and Wabush Lake during the course of Neal's geological mapping. Broad exposures of this enrichment, up to 1.2 km long, assayed from 35% to 54% Fe and 17% to 45% SiO<sub>2</sub>. Ten enriched zones of major dimensions were located and six of these were roughly mapped on a scale of 1"=200 ft. Seventy four samples were sent to Burnt Creek for analysis. Two bulk samples, each about 68 kg, were taken for ore dressing tests. One was sent to the Hibbing Research Laboratory and the other was sent to the Bureau of Mines, Ottawa. The material was considered to be of economic significance as the metallurgical testing indicated that it could be concentrated.

Geological mapping on a scale of 1"=1/2 mi. was carried out by H.E. Neal in the Wabush Lake - Shabogamo Lake area in 1950. Neal also reported numerous occurrences of pyrolusite and psilomelane



(botryoidal goethite being frequently associated with the manganese) within the iron formation and quartzite. Mills No. 1 was one of the iron deposits discovered in 1950 and was sampled and described at that time. A narrow irregular band of pyrolusite was reported to extend 457 m within a friable magnetite hematite iron formation located 914 m southwest of the prominent point on the west side of Mills Lake. In 1951, nearly all of the concession held by LM&E within the Labrador Trough was flown with an airborne magnetometer. This survey showed the known deposits to be more extensive than apparent, from surface mapping and suggested further ore zones in drift-covered areas.

In 1953, a program of geological mapping in the Mills Lake - Dispute Lake area was conducted by R.A. Crouse of IOCC. Crouse considered the possibility of beneficiating ores within the iron formation and all high magnetic anomalies and bands of magnetite-specularite iron formation were mapped in considerable detail. Occurrences of friable magnetite-specularite gneiss containing enough iron oxides to be considered as beneficiating ore were found in several places west of Long Lake and northwest of Canning Lake. Representative samples assayed 18.55% to 43.23% Fe and 26.66% to 71.78% SiO<sub>2</sub>. Seven zones of this material were located in the area. Three of these (one of which was Mills No. 1 Deposit) were mapped on a scale of 1"=200 ft. On two of these occurrences, dip needle lines were surveyed at 122 m (400 ft) intervals. Forty-two samples were sent to the Burnt Creek Laboratory for analysis. Three samples were sent to Hibbing, Minnesota for magnetic testing. It was reported that at Mills No. 1, the ore was traced for a distance of 488 m along strike, with the minimum width being 107 m.

In 1957, an area of 86.2 km<sup>2</sup> to the west of Long Lake was remapped on a scale of 1"= 1,000 ft and test drilled by IOCC to determine areas for beneficiating ore. Dip needle surveying served as a guide in determining the locations of iron formation in drift-covered areas. 272 holes, for a total of 7,985 m (26,200 ft.) were drilled during the 1957 program (approximately 66 holes are located on the Property). Mathieson reported that there were no new deposits found as a result of the drilling, however, definite limits were established for the iron formation found during previous geological mapping. Three zones of "ore" were outlined, which included Mills No. 1 and an area of 19.1 km<sup>2</sup> was blocked out as the total area to be retained. According to Mathieson, the Mills No. 1 zone was outlined by six drillholes and found to have a maximum length of 3,048 m (10,000 ft) and a maximum width of 610 m (2,000 ft). The mineralization is described as being composed of specularite with varying amounts of magnetite, grading on average 32.1% Fe. A search by Altius for the logs and/or core from the 1957 LM&E drilling program has not been successful. From local sources, it is known that all holes drilled in this area were of small diameter and very shallow (~30 m).

Early in 1959, a decision was made by IOCC to proceed with a project designed to open up and produce from the ore bodies lying to the west of Wabush Lake and a major program of construction, development drilling and ore testing was started in the Wabush area. Also that year, geological mapping (1"=1,000 ft.) and magnetic profiling were conducted by LM&E in the Long Lake - Mills Lake area. Zones of potential beneficiating ores were located to the southwest of Mills Lake.

In 1972, an extensive airborne electromagnetic survey covered 2,150 km<sup>2</sup> of territory, and entailed a 2,736 km line of flying in the Labrador City area. The area covered, extended from the southern extremity of Kissing Lake to north of Sawbill Lake, and from approximately the Québec-Labrador border on the west to the major drainage system, through Long, Wabush and Shabogamo Lakes on the east. The survey was done by Sander Geophysics Ltd. (for LM&E) using a helicopter equipped with a NPM-4 magnetometer, a fluxgate magnetometer, a modified Sander EM-3 electromagnetic system employing a single coil receiver, and a VLF unit. In 1972 to 1973, an airborne magnetic survey was conducted over the area by Survair Ltd., Geoterrex Ltd., and Lockwood Survey Corporation Ltd., for the Geological Survey of Canada.

In 1977, geological mapping was initiated by T. Rivers of the Newfoundland Department of Mines and Energy within the Grenville Province, covering the Wabush-Labrador City area. This work was part of the program of 1:50,000 scale mapping and reassessment of the ratio of mineral potential of the Labrador Trough by the Newfoundland Department of Mines and Energy. Mapping was continued by Rivers in western Labrador from 1978 to 1980. As part of an experimental geochemical exploration program in Labrador by LM&E in 1978, many of the lakes in the Labrador City area were sampled, both for lake bottom sediments and lake water. Lake sediment samples were sent to Barringer Research Ltd., Toronto, Ontario, for a multi-element analysis. Water samples were tested at Labrador City for acidity, before being acidified for shipment. Some samples were also shipped to Barringer for analysis and some were analyzed in the IOCC Laboratory in Sept-Îles. A sample portion was also sent to the Leach Brothers Laboratory in Hibbing Minnesota for additional analysis. On Block No. 24 (part of the Property), only one site was sampled. The sediment assay results indicated the sample was statistically "anomalous" in phosphorous. None of the water samples were defined as anomalous. Stubbins concluded that the samples, as a group, are widely scattered, and it is difficult to draw any firm conclusion from the results. He added that a further study might indicate that it is worthwhile to take additional samples.

In 1979, a ground magnetometer survey was conducted on Block No. 24 (part of the Property). A total of four lines having a combined length of 3,500 m were surveyed on this block. The standard interval between successive magnetometer readings was 20 m. Occasionally over magnetically "quiet" terrain, this interval was increased. Whenever an abrupt change in magnetic intensity was encountered, intermediate stations were surveyed. The magnetometer profiles and observations of rare outcrops confirm that oxide facies iron formation occurs on Block No. 24 (in the Mills No. 1 area of the Property). Also in 1979, one diamond drillhole was drilled by LM&E near the north end of Elfie Lake on the Property. The hole (No. 57-1) was drilled vertically to a depth of 28 m and did not encounter the iron oxide facies of interest. In 1983, LM&E collared a 51 m deep (168 ft) diamond drillhole 137 m north of Elfie Lake (DDH No. 57-83-1). The drillhole encountered metamorphosed iron formation from 17 m to a depth of 51 m. Of this, only 2 m was oxide facies. Core recovery was very poor (20%).

In 1981 and 1982, an aerial photography and topographic mapping program was completed by IOCC to re-photograph the mining areas as part of its program to convert to the metric system. Two scales of aerial photography (1:10,000 and 1:20,000) were flown, and new topographic maps (1:2,000 scale) were made from these photos. The photography was extended to cover all the lease and licence blocks in the Labrador City area.

During the summers of 1977 and 1978, a lake sediment and water reconnaissance survey was undertaken over about one-half (134,000 km<sup>2</sup>) of Labrador by the GSC, in conjunction with the Newfoundland Department of Mines and Energy. The survey was designed to provide the exploration industry with data on bedrock composition, and to identify metaliferous areas as large scale prospecting targets. Sampling continued in 1982 in southwestern Labrador. Water and sediments from lakes over an approximate area of 50,000 km<sup>2</sup> were sampled at an average density of one sample per 13 km<sup>2</sup>. Lake sediment samples were analyzed for U, Cu, Pb, Zn, Co, Ni, Ag, Mo, Mn, Fe, F, As, Hg and L.O.I. In addition, U, F and pH were determined on the water samples.

During 1985, field work by LM&E was concentrated on the northern part of Block No. 24. A pace and compass grid was established near Molar Lake. Cross lines were added at 152 m (500 ft) intervals. The grid was used to tie in the sample sites and a systematic radiometric survey was thus performed. There were four soil samples and six rock samples (one analyzed) collected. A possible source of dolomite as an additive for the IOCC's pellet plant was examined near Molar Lake. It was concluded from visual examination that the dolomite was high in silica.

In 2001, IOCC staked a considerable portion of the iron formation in the Labrador City area, with the Kamistiatusset area being in the southern extent of the company's focus. Extensive geophysical testing was conducted over the area using airborne methods. The Kamistiatusset area and the area north of the Property were recommended as a high priority target by SRK Consulting Ltd., as part of the 2001 IOCC Work Report. However, no work was reported for the area.

In 2004, Altius staked twenty (20) claims comprising licence 10501M. In the spring of 2006, Altius staked another thirty-eight (38) claims to the north, comprising licence 11927M.

### ***Geological Setting***

The Property is situated in the highly metamorphosed and deformed metasedimentary sequence of the Grenville Province, Gagnon Terrane of the Labrador Trough (“**Trough**”), adjacent to and underlain by Archean basement gneiss. The Trough, otherwise known as the Labrador-Québec Fold Belt, extends for more than 1,200 km along the eastern margin of the Superior Craton from Ungava Bay to Lake Pletipi, Québec. The belt is about 100 km wide in its central part and narrows considerably to the north and south. The Trough itself is a component of the Circum-Superior Belt that surrounds the Archean Superior Craton which includes the iron deposits of Minnesota and Michigan. Iron formation deposits occur throughout the Labrador Trough over much of its length.

The Trough is comprised of a sequence of Proterozoic sedimentary rocks, including iron formation, volcanic rocks and mafic intrusions. The southern part of the Trough is crossed by the Grenville Front representing a metamorphic fold-thrust belt in which Archean basement and Early Proterozoic platformal cover were thrust north-westwards across the southern portion of the southern margin of the North American Craton during the 1,000 Ma Grenvillian orogeny. Trough rocks in the Grenville Province are highly metamorphosed and complexly folded. Iron deposits in the Gagnon Terrane, (the Grenville part of the Trough); include those on the Property and Lac Jeannine, Fire Lake, Mont-Wright, Mont-Reed, and Bloom Lake in the Manicouagan-Fermont area, and the Luce, Humphrey and Scully deposits in the Wabush-Labrador City area. The metamorphism ranges from greenschist through upper amphibolite into granulite metamorphic facies from the margins to the orogenic centre of the Grenville Province. The highgrade metamorphism of the Grenville Province is responsible for recrystallization of both iron oxides and silica in primary iron formation, producing coarse-grained sugary quartz, magnetite, and specular hematite schist or gneiss (meta-taconites) that are of improved quality for concentration and processing.

North of the Grenville Front, the Trough rocks in the Churchill Province have been only subject to greenschist or sub-greenschist grade metamorphism and the principal iron formation unit is known as the Sokoman Formation. The Sokoman Formation is underlain by the Wishart Formation (quartzite) and the Attikamagen Group including the Denault Formation (dolomite) and the Dolly/Fleming Formations (shale). In the Grenville part of the Trough, where the Property is located, these same Proterozoic units can be identified, but are more metamorphosed and deformed. In the Grenville portion of the Trough, the Sokoman rocks are known as the Wabush Formation, the Wishart as the Carol Formation (Wabush area) or Wapusakatoo Formation (Gagnon area), the Denault as the Duley Formation and the Fleming as the Katsao Formation. A recent synthesis develops modern lithotectonic and metallogenic models of the Trough north of the Grenville Front. In practice, both sets of nomenclature for the rock formations are often used. Alderon and Altius have used the Menihek, Sokoman, Wishart, Denault, and Attikamagen nomenclature throughout their reports to name rock units on the Property.

The Property is underlain by folded, metamorphosed sequences of the Ferriman Group and includes (from oldest to youngest): Denault (Duley) Formation dolomitic marble (reefal carbonate) and Wishart (Carol) Formation quartzite (sandstone) as the footwall to the Sokoman (Wabush) Formation. The Sokoman (Wabush) Formation includes iron oxide, iron carbonate, and iron silicate facies and hosts the iron oxide

deposits. The overlying Menihek Formation resulted from clastic pelitic sediments derived from emerging highlands into a deep-sea basin and marks the end of the chemical sedimentation of the Sokoman Formation.

Middle Proterozoic biotite-garnet-amphibole dykes and sills cut through all formations.

Altius' exploration was focussed on three parts of the Property known as the Mills Lake, Rose Lake and the Mart Lake areas. Alderon's 2010 and 2011 drilling was focussed on the Rose Lake and Mills Lake areas. On some parts of the Property, the Sokoman (Wabush) is directly underlain by Denault (Duley) Formation dolomite and the Wishart (Carol) Formation quartzite is missing or is very thin. In other places, both the dolomite and quartzite units are present.

Alderon interprets the Property to include two iron oxide hosting basins juxtaposed by thrust faulting. The principal basin, here named the "Wabush Basin", contains the majority of the known iron oxide deposits on the Property. Its trend continues NNE from the Rose Lake area 9 km to the Wabush Mine and beyond the town of Wabush. The second basin, called the "Mills Lake Basin", lies south of the Elfie Lake Thrust Fault and extends southwards, parallel with the west shore of Mills Lake. Each basin has characteristic lithological assemblages and iron formation variants.

The portion of the Property east of the western shore of Mills Lake is dominated by gently dipping (15°-20°E) Denault Formation marble with quartz bands paralleling crude foliation. This block is interpreted as being thrust from the east onto the two basin complexes above. The marble outcrops across the 8 km width of licences 017926M and 017948M with consistent east dips. The thickness exposed suggests that several thrust faults may have repeated the Denault Formation stratigraphy. On licence 017948M, large blocks of Wishart quartzite were observed surrounding an elevated plateau. On prior maps this is shown as an infolded syncline of Sokoman Formation, but recent mapping by Alderon found no iron formation. Another area on licence 017926M, previously interpreted as a syncline with Sokoman and Menihek formations in its core did not show any airborne magnetic or gravity anomalies and recent Alderon mapping found only dolomite marble.

Alderon initiated its 2010 program by relogging Altius' drill core and replaced Altius' previous lithological codes with its codes. Amphibolite dikes and sills cut through all other rock units, but are particularly common in the Menihek Formation schists and are a consideration as they may negatively impact the chemistry of iron concentrates made from mineralization containing these rocks that may be difficult to exclude during mining.

## ***Exploration***

### *General*

Historic exploration is summarized above under " – History". Altius' initial exploration was in 2006, culminating in a diamond drilling program in 2008. Alderon acquired the Property in December 2010 and has since conducted an extensive exploration program.

### *Altius Exploration Programs 2006 – 2009*

Reconnaissance mapping and rock sampling commenced during the summer of 2006 and was completed during the 2007 field season. Ten 2006 samples of outcrop and boulders were assayed at SGS Lakefield for major elements. Grab samples yielded iron values typical of oxide facies iron formation. Further outcrop sampling was completed during the 2008 program. A total of 63 rock samples were collected, 29 of which were for chemical analysis while the remaining were collected for physical properties testing.

The 2007 samples were sent to Activation Laboratories in Ancaster, Ontario and assayed for major elements, FeO and total sulphur. Nine rock samples from the Mills Lake area returned Fe values ranging from 9.7% Fe to 43.6% Fe and manganese values ranging from 0.43% Mn to 13.87% Mn. From the Molar Lake area, five rock samples were collected yielding 13.7% Fe to 23.6% Fe and 0.1% to 0.69% Mn. From the Elfie Lake area, two grab samples were collected that respectively returned assay results of 25.9% Fe and 0.95% Mn and 17.9% Fe and 1.07% Mn. From the Mart Lake area, one sample was collected that yielded 16.3% Fe and 0.15% Mn. From the Rose Lake area, a few outcrops over a strike length of approximately 430 m were grab sampled. Values ranged from 5.6% Fe with 9.73% Mn from a sample near the iron formation – Wishart Formation contact to 29.7% Fe with 1.05% Mn from a magnetite specularite sample of iron formation.

Altius' 2007 exploration program also included a high resolution helicopter airborne magnetic survey carried out by Mcphar Geosurveys Ltd. The purpose of the airborne survey was to acquire high resolution magnetic data to map the magnetic anomalies and geophysical characteristics of the geology. The survey covered one block. Flight lines were oriented northwest-southeast at a spacing of 100 m. Tie-lines were oriented northeast-southwest at a spacing of 1,000 m. A total of 905 line km of data were acquired. Data was acquired by using precision differential GPS positioning. The rock samples were collected from the Property and sent for physical properties testing to support interpretation of the airborne magnetic survey results.

The results of the 2007 exploration program were positive with rock samples returning favorable iron values and the airborne magnetic survey effectively highlighting the extent of the iron formation.

The 2008 exploration program on the Property consisted of physical properties testing of the rock samples collected in 2007, line cutting, a ground gravity and magnetic survey carried out by Géosig of Saint Foy, Québec, a high resolution satellite imagery survey (Quickbird), an integrated 3-D geological and geophysical inversion model and 6,129.49 m of diamond drilling in 25 holes. The drilling program was designed to test three known iron ore occurrences on the Property (namely Mills Lake, Mart Lake and Rose Lake) that were targeted through geological mapping and geophysics.

The ground gravity and total field magnetic surveys were conducted along 69.8 km of cut gridlines spaced from 200 m to 400 m apart oriented northwest-southeast. Gravity surveying and high resolution positional data were collected at 25 m intervals. The magnetic survey stations were spaced at 12.5 m along the lines.

Mira Geoscience (“**Mira**”) was contracted to create a 3-D geological and geophysical inversion model of the Property. Mira was provided with the geological cross sections, airborne and ground geophysics data and the physical rock properties from each of the different lithologies. The 3-D geological and geophysical model was completed to help with target definition and drillhole planning.

Drilling confirmed the presence of oxide-rich iron formation at the three iron occurrences and was successful in extending the occurrences along strike and at depth. Drilling was also fundamental in testing stratigraphy and structure to help refine the geological and structural models for each area to aid in drillhole targeting.

#### *Alderon's Summer 2010 Exploration Program*

The 2010 exploration program started on June 1, 2010 and finished December 1, 2010. The program consisted mainly of a drilling program, but also included an airborne geophysical survey covering the three licences Alderon holds in Newfoundland and Labrador and the relogging and lithology re-coding of

Altius' 2008 drill core. The airborne geophysical survey consisted of 1,079 line km of gravity and magnetic surveying covering a 130 km<sup>2</sup> area.

The geophysical survey measuring the gradient of the gravity field and magnetics was carried out by Bell Geospace Inc. (“**BGI**”) of Houston, Texas and flown over the Property from November 8, 2010 through November 11, 2010 onboard a Cessna Grand Caravan. The crew and equipment were stationed in Wabush. The survey was flown in a north-south direction with perpendicular tie lines. Eighty five survey lines and 13 tie lines were flown. The survey lines were 100 m apart on the western side of the survey area, and 300 m apart on the eastern side. The tie lines were 1,000 m apart. The survey lines vary from 10.3 km to 12.4 km in length, and the tie lines varied in length from 5.5 km to 11.7 km.

The survey plan defines a flight path that maintains a constant distance from the ground for the entire length of each survey line. However, it is not always possible to maintain the constant clearance because of variations in terrain relief. Ground clearance does not vary greatly in this survey due to the lack of severe terrain features and ground clearance ranged from 60 m to 187 m.

Magnetic data was acquired with a cesium vapor sensor. A radar altimeter system is deployed to measure the distance between the airplane and the ground. Along with the plane's altitude acquired via GPS, radar altimetry data is used to produce a Digital Elevation Model (“**DEM**”). The full Tensor Gravity Gradiometry (Air FTG) system contains three Gravity Gradient Instruments (“**GIGs**”), each consisting of two opposing pairs of accelerometers arranged on a rotating disc.

Processing of the gravity data includes line leveling, terrain correction and noise reduction. Measured free air and terrain corrected maps for each of the six tensor components are provided.

Minimal data correction is required for magnetics. The majority of erroneous data is removed by the compensation process that corrects the data for the effects of the aircraft, as heading and position changes relative to the magnetic field. A base magnetometer was also used to record and remove the daily variations in the magnetic field due to regional factors. A lag correction is applied to correct the distance between the mag sensor and the GPS antennae. The lag correction is computed based on speed and distance to accurately shift the magnetic data to the GPS reference point and ensure that lines flown in opposite directions are not biased by the distance between the sensor and antennae. The earth's field is calculated and removed. Only minor line adjustments are required to remove any remnant errors that are apparent at line intersections. The data is then ready for reduction to the magnetic pole to approximate the anomaly directly over the causative body, and other derivative calculations to accentuate the anomalies.

#### *Alderon's Winter 2011 Exploration Program*

Alderon's winter 2011 program consisted of a winter drilling program on the Rose North Deposit. Drilling started in early February and was completed on April 6, 2011.

Subsequent to the effective date of the Technical Report, Alderon has conducted additional drilling on the Kami Property. The total 2011 drill program consisted of 86 holes, totaling 22,250 metres.

#### ***Mineralization***

Mineralization of economic interest on the Property is oxide facies iron formation. The oxide iron formation (“**OIF**”) consists mainly of semi-massive bands, or layers, and disseminations of magnetite and/or specular hematite (specularite) in recrystallized chert and interlayered with bands (beds) of chert with carbonate and iron silicates. Where magnetite or hematite represent minor component of the rock comprised mainly of chert, the rock is lean iron formation. Where silicate or carbonate becomes more

prevalent than magnetite and/or hematite, then the rock is silicate iron formation (“SIF”) and or silicate-carbonate iron formation and its variants. SIF consists mainly of amphibole and chert, often associated with carbonate and contains magnetite or specularite in minor amounts. The dominant amphibole on the Kami Property is grunerite. Where carbonate becomes more prevalent, the rock is named silicate-carbonate or carbonate-silicate iron formation, but in practice, infinite variations exist between the OIF and silicate-carbonate iron formation composition end members. SIF and its variants and lean iron formation are also often interbedded with OIF.

The OIF on the Property is mostly magnetite-rich and some sub-members contain increased amounts of hematite (specularite). Hematite appears to be more prominent in Rose North mineralization than at either Rose Central or Mills Lake, but all zones contain mixtures of magnetite and hematite. At both Rose North and Rose Central and at Mills Lake, a bright pink rhodonite, which is a manganese silicate, is associated with hematite-rich OIF facies. Bustamite, a calcium manganese silicate, is said to be present. Deeply weathered iron formation in the Rose North Deposit also contains concentrations of secondary manganese oxides. There may also be other manganese species present.

#### *Wabush Basin – Rose Deposits*

The Wabush Basin on the Property contains (from south to north) the South Rose/Elfie Lake Deposit, the Rose Central Deposit and the Rose North Deposit. These deposits represent different parts of a series of gently plunging NNE-SSW upright to slightly overturned anticlines and synclines. The airborne geophysics anomalies and certain maps show the linear trend of this fold system continuing NNE from the western end of the Rose North Deposit toward Long (Duley) Lake. The Wabush Mine Deposit lies across the lake where the structure opens into a broad open anticline perhaps dipping ENE under Little Wabush Lake.

The stratigraphy in the Rose area ranges from the Archean granite gneiss, north of the Rose syncline, up to the Menihek Formation mica schist. The contact between the Archean basement and the Denault marble is not exposed, nor has it been drilled to date. The Rose anticline exposes the Wishart Formation quartzite and drillholes also pass into Denault marble in the anticline core. The contact relationship between the two units appears gradational with increasing quartz at the base of the Wishart. The Wishart includes muscovite + biotite-rich schist and variations in quartzite textures. It appears more variable than the large quartzite exposures near Labrador City.

The upper contact of the Wishart Formation is abrupt. The base of the overlying iron formation often starts with a narrow layer of Fe-silicate-rich iron formation. Alderon’s exploration team correlates this member with the Ruth Fm. Locally this is called the Basal Iron Silicate Unit (Wabush Mines terminology). The thickness of this sub-unit ranges 0 to 20 m.

The Sokoman Formation in the Rose Lake area includes three iron-oxide rich stratigraphic domains or zones separated by two thin low-grade units. This is similar to the sequence observed at the Wabush Mine. At Rose Lake, the low grade units, composed of quartz, Fe-carbonate plus Fe-silicates and minor Fe oxides, are thinner and more erratically distributed than at the Wabush Mine. The three oxide divisions or domains in a gross sense are mineralogically distinct.

The lower stratigraphic level at Rose Lake typically has substantially higher specular hematite to magnetite ratio; magnetite content can be minimal to almost absent. The principal gangue mineral is quartz with a little carbonate or Fe-silicate. Crystalline rhodonite and bustamite are locally common. Occasionally, magnetite can be observed replacing the hematite as crystalline clusters to 2 cm with rhodonite coronas. This is interpreted as indicating a broad reduction in Fe oxidation during the peak of

metamorphism. The Mn-silicates appear to be cleanly crystallized with little entrainment of Fe oxides. In the Rose North Deposit, some secondary manganese oxides develop in the deeply weathered zone.

The middle domain typically is comprised of a series of OIF units where hematite exceeds magnetite, interlayered with units where magnetite exceeds hematite. The mineralization is somewhat enriched in manganese. Gangue minerals include quartz, Fe-carbonate, and modest amounts of Fe-silicate.

The upper domain typically has a much higher magnetite: hematite ratio than the other levels, with hematite being uncommon in any quantity. Upwards, this domain grades into assemblages containing less Fe oxide with increasing amounts of Fe-silicate and Fe-carbonate. Magnetite-rich mineralization typically contains less than 0.5% Mn.

The uppermost part of the Sokoman is principally non-oxide facies. The contact with the overlying Menihek Fm is a diachronous transition of interlayered Sokoman chemical sediments and Menihek flysch mud. The contact may locally be tightly folded or faulted by post-metamorphic movement parallel with the foliation, but many of the contacts between the two formations are delicately preserved and appear to be "one-way", not folded stratigraphy. It is probable that all three contact controls are in play.

The Wabush Basin in the southern part of the Property is bounded to the south by a major SSE-trending thrust fault along Elfie Lake and on its north and west margins by a steeply dipping contact between the Sokoman Formation-Wishart Formation assemblage and the Archean granite gneiss basement. This contact is apparently drag-folded along a NNE trend toward the Wabush Mine. The eastern edge of the assemblage appears to be defined by a late fault (probably a thrust from the east).

The magnetic profile from a ground magnetic survey completed over the property shows peaks that correlate with magnetite-hematite mineralization intersected in the drillholes. Each of these zones are interpreted as limbs of a series of NE-SW trending, upright to slightly overturned, shallow NE plunging anticlines and synclines but structural stacking may also play a role. The anticlinal hinge of the South Rose-Rose Central is mapped out by drilling on only a couple of cross sections, but on sections to the SW and down plunge, this hinge zone has been eroded away (would be above ground surface) and only the SE and NW limbs, which are respectively the South Rose and Rose Central deposits are present. It can be seen that Wishart Formation quartzites form the core of the fold and Menihek Formations mica – graphitic schists are the stratigraphic hanging wall above the Sokoman Formation iron formation. The Rose North Zone was the main focus of Alderon's 2011 winter drill program and the Rose Central Deposit was the main focus of WGM's previous Mineral Resource estimate, dated May 2011.

The true interpreted width of the Rose Central Deposit is in the order of 220 m wide however, widths of mineralization rapidly attenuate through the hinge into the South Rose Zone or limb and there is no consistent relationship between drillhole intersection length and true width. The true width of the Rose North Deposit shown by limited drilling to date appears to be in the order of 250 m to 350 m. The Rose North and the Rose Central deposits appear to represent respectively the NW and SW limbs of the same tight syncline. There is also likely another narrow highly attenuated, perhaps tightly folded limb of Sokoman between the main Rose Central Zone and the Rose North Zone. The entire Rose system also appears to attenuate along strike to the SSW. WGM believes it likely that considerable second order and third order parasitic folding is also most likely present and is largely responsible for difficulties in tracing narrow layers of SIF, CSIF (variants) and magnetite and hematite-dominant OIF from drillhole intersection to intersection. Such folding would also, in WGM's opinion, be the main reason for the interlayering between Menihek-Sokoman-Wishart and even Denault formations, but as aforementioned, the relative importance of possible structural stacking also remains unresolved.



The aforementioned interzone stratigraphy and hematite-magnetite zoning of the Central – Rose North zones is apparent on cross sections. These manganese and hematite-rich zones represent mineralization towards the stratigraphic base of the zone. However, the extent of hematite enrichment in Rose North may be exaggerated by the extent of secondary weathering leading to the development of limonite, goethite and secondary hematite after magnetite. Clearly, core logged as hematite-dominant as completed by Alderon’s exploration crew correlates well with estimated %hmFe (hematitic iron) calculated from assays. In addition to the prominent hematite-rich layer near the stratigraphic base, there are other layers of hematite-rich OIF throughout the zone alternating with magnetite-rich, lean oxide and SIF and variants, but these are less prominent and difficult to trace. This difficulty in tracing individual iron formation variants from hole to hole is probably explained by the fact that these other layers are relatively thin and therefore the aforementioned second and third order folding has been more effective in shifting them in position and causing them to thicken and thin. The prevalence of down-dip drilling also makes interpretation more difficult.

In the main body of the Rose Central Zone, manganese decreases in concentration from stratigraphic bottom towards the stratigraphic top and hematite also decreases in prevalence as magnetite-rich OIF becomes dominant. This same general pattern, perhaps not as obvious, is also present from footwall to hanging wall in the Rose North Zone.

#### *Mills Lake Basin – Mills Lake and Mart Lake Deposits*

The Mills Lake Basin is developed south of the Wabush Basin. It is considered to be a separate basin because the amount and distribution of non-oxide facies iron formation is different from the Wabush Basin package at Rose and Wabush Mine. Drilling to date shows the two basin assemblages juxtaposed by the Elfie Lake Thrust Fault.

The oldest lithology in the Mills Lake area is the Denault marble. It forms the core of the syncline in outcrop. The contact with the overlying Wishart is transitional to sharp. The Wishart is predominantly quartzite with lenses of micaceous schist, especially towards the upper contact with the Sokoman Formation. The base of the Sokoman is marked by the discontinuous occurrence of a basal silicate iron formation that ranges from nil to 20 m true thickness that Alderon correlates to the Ruth Formation.

The lower part of the Sokoman is Fe-carbonate-quartz facies IF with scattered zones of disseminated magnetite. The OIF facies forms two coherent lenses traced over 1,400 m on the Mills Lake Deposit and similarly south of Mart Lake, drilled in 2008. In the Mills Lake Deposit, the lower oxide unit is 30-130 m true thickness and the upper one more diffuse and generally less than 25 m thick. In the Mart Zone, the two oxide layers are less than 30 m thick. They are separated by 20 to 50 m of carbonate facies IF. Above the upper oxide lens, more carbonate facies, greater than 50 m thick, cap the exposed stratigraphy. Alderon reports that the carbonate facies units often show zones of Fe-silicates which they interpret as being derived from a decarbonation process during metamorphism leading to replacement textures indicating that, at least in the Mills Lake area, the origin of Fe-silicates is principally metamorphic and not primary. Disseminated magnetite is a common accessory with the Fe-silicates, but isn’t economically significant at this low level of replacement.

The lower oxide facies at the Mills Lake Deposit, similar to the Rose Lake zones, has three levels or stratigraphic domains: a lower magnetite dominant domain, a specular hematite with rhodonite domain, and an upper magnetite domain. The two magnetite dominant domains show different amounts of manganese in magnetite-OIF with the upper portion being low in manganese and the lower one having moderate manganese enrichment. In the Mart Zone, a similar pattern is apparent, but the two magnetite-dominant OIF domains are more widely separated stratigraphically, are generally thinner, have lower Feoxide grade and the hematite member is less well developed.

The Mills Lake Deposit shows the lower and wider lenses of iron formation intersected by some drillholes. Also apparent is the narrow hematite dominant layer which occurs three quarters of the distance towards the top of the lower lens and divides the lower lens into three parts with a magnetic OIF dominant bottom and top. Similar to Rose Central mineralization, the core logging of various facies correlates well with %hmFe calculated from assays. Again, similar to mineralization in the Rose Central and Rose North zones, manganese is significantly higher in hematite-rich OIF than the magnetite-rich OIF.

The Mills Lake Basin outcrop is controlled by an ENE-trending asymmetrical open syncline overturned from the SSE with a steeper north limb and shallow-dipping (18°E) east-facing limb. The fold plunges moderately to the ENE. The Mills Lake Basin is fault-bounded. The northern limit of the basin is the Elfie Lake Thrust Fault pushed from the SSE where it rides over the Wabush Basin package. The east limit is an (interpreted) thrust fault from the east that pushes Denault marble over the Sokoman Formation. The SSE fault appears to be the older of the two. The details of the basin dimensions are unknown. It may be relatively small, extending only to Fermont, or it may include the Mont-Wright Deposit and several smaller iron deposits west of Fermont.

#### *Mineralization by Rock Type and Specific Gravity*

WGM completed studies on the average composition of rock types derived from drill core sample assays for all the deposits. The estimates of %Fe in the form of hematite (%hmFe) have been made by WGM using several different methods depending on the type of assay and testwork data available. The precedence for calculation method follows the order in which the methods are described. For all cases, the distribution of Fe<sup>++</sup> and Fe<sup>+++</sup> to magnetite was done assuming the iron in magnetite is 33.3% Fe<sup>++</sup> and 66.6% Fe<sup>+++</sup>. The estimation method also assumes all iron in silicates, carbonates and sulphides is Fe<sup>++</sup> and there are no other iron oxide species present in mineralization other than hematite and magnetite. This latter assumption is generally believed to be true only for the Rose Central and Mills Lake Deposits. This assumption is not completely true for the Rose North Zone where extensive deep weathering has resulted in extensive limonite, ±goethite and hematite after magnetite. This weathering is particularly present in 2011 drillholes that tested the mineralization mostly close to surface in Rose North. This development of limonite and goethite exaggerates the calculated %hmFe values, affects density of mineralization and also reduces recoverable Fe. It may also, in association with the Rose-Lake drainage system, contribute to hydrological issues that may be concerns for potential pit development.

The results of WGM's analyses show that logging is generally in agreement with rock composition. Samples logged and coded as magnetite-rich are indicated by assay results to contain more magnetic Fe than samples logged as hematite-rich or carbonate and silicate IF. Samples coded as hematite-rich contain more hematitic Fe. There are however, some anomalies probably resulting from mis-logging. At both Rose and Mills, hematite-rich samples contain higher levels of manganese. Carbonate IF samples are generally higher in CaO. Mafic intrusive rocks (HBG-GN) contain higher levels of TiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> and Mg than IF. Quartz Schists (which WGM has regrouped from Alderon individual lithology field codes to facilitate simplification for reporting) which generally represent Wishart Formation are high in SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub>, as are Menihek Formation samples. Denault Formation samples are high in CaO and MgO as this rock is marble or dolomitic marble.

Davis Tube tests were completed on 2010 and 2011 drilling program samples, most being completed on Rose Central. Davis Tube magnetic concentrates were generally assayed for major elements by XRF. For some samples, Davis Tube tails were analyzed for FeO. For a proportion of these samples, particularly hematite-rich samples, no XRF analysis on products was possible because the magnetic concentrate produced was too small or non-existent.

For drillholes that had both Satmagan determinations of %magFe and Davis Tube tests (these samples are mostly OIF, but also include carbonate and silicate IF and even amphibolite gneiss), the results show that both methods for measuring %magFe produce very similar results with no significant bias. There are a few samples that correlate poorly and these samples should be checked. These samples also should be checked for the balance of Fe<sup>++</sup> from FeO<sub>H</sub>, versus Fe<sup>++</sup> from Satmagan. Clearly sample pulverization, 80% passing 70 microns, has resulted in a high degree of magnetite liberation.

Preliminary results for the Davis Tube tests results show the expected high iron recoveries were achieved for magnetite-rich samples and lower recoveries for hematite-rich samples. Iron concentrations in magnetic concentrates from magnetite-rich rocks are generally high, averaging close to 70%, and ranging from 64% to 72%. Silica values for magnetite-rich lithologies range from 0.4 to 8%, but generally average approximately 2%. Manganese in magnetic concentrates is weakly to moderately correlated with manganese in Head samples but patterns are irregular. For its 2010 program, Alderon completed bulk density determination on 175, 0.1 m length half split core samples for the purposes of calibrating the downhole density probe data. The samples tested spanned a number of rock types. The bulk densities were determined at SGS Lakefield using the weigh-in-water/weigh-in-air method. These 0.1 m samples represent the upper 0.1 m intervals of routine assay samples that are generally 3 m to 4 m long. There are no XRF WR assays for these specific 0.1 m samples as only the routine sample intervals, of which the 0.1 m samples were a part, were assayed. WGM's analysis shows that bulk densities for these 0.1 m samples correlate poorly with the %TFe from assays on the longer interval routine samples of which they were a part. This poor correlation is not unexpected by WGM since mineralization is rarely consistent over entire sample intervals. Note: Although there were 175 wet bulk density determinations, more than one result for the 0.1 m samples can match with a routine sample interval.

Alderon also completed SG determinations on the pulps from 33 routine samples at SGS Lakefield using the gas comparison pycnometer method. The SG results for these samples versus XRF WR %TFe results and the results of DGI Geosciences Inc. ("**DGI**") downhole density results have been plotted. This plot shows that SG by pycnometer results correlate strongly with %TFe. It also illustrates that probe determined density averaged over the same sample intervals similarly correlate strongly with both %TFe from assay and with pycnometer determined density.

WGM's experience is that there is invariably a strong positive correlation between SG and/or density and %TFe assays for fresh unweathered / un-leached OIF. This occurs because OIF generally has a very simple mineralogy consisting predominantly of hematite and/or magnetite and quartz. Because the iron oxide component is much denser than the quartz and the OIF mineralogy is simple, the Fe concentration of a sample provides an excellent measure of the amount of magnetite and/or hematite present in the sample and hence the density of the sample. Invariably, the relationship between %TFe and SG is much the same from one deposit to the next. Pycnometer determined SG on pulps is not the ideal method for proving the SG to %TFe relationship because any porosity in samples could lead to misleading results. However, where bulk density and pulp density or SG have been determined on fresh unweathered OIF samples, WGM has found that results will be very comparable.

WGM also assessed the helium comparison pycnometer SG results for 26 samples it collected from Alderon and Altius drill core during site visits in 2009 and 2010 and also compared the DGI's density results from downhole probe averaged over the same Tos and Froms as the WGM sample intervals. Pycnometer SG and %TFe correlated well and the Best Fit relationship line is similar to Alderon's 33 SG pycnometer results and similar to that for other iron deposits WGM has reviewed. However, the probe densities do not correlate well with either the pycnometer SG or iron assays. WGM believes the discrepancy between the relationships may be due to poor correlation between sample Tos and Froms from sampling, logging and the core meterage blocks and the probe depth indexing. WGM understands

that Alderon has been aware of discrepancies between the depth of drillholes as indicated by the drillers and the DGI probe data. WGM further understands that the consensus of opinion is that the driller's core meterage block errors were not always detected and corrected by Alderon's geotechnical crew. Consequently, the depth indexing for DGI's probe does not correspond exactly with Tos and Froms from logging and sampling. The previous figure showing probe density, pycnometer SG and %TFe correlates well because special effort was made to correct the indexing errors.

For the Mineral Resource estimate, WGM has chosen for its modeling to use the relationship between pycnometer SG and %TFe to mitigate the depth indexing issue.

No new SG/density measurements on drill core or performed by downhole probe were acquired on Rose North mineralization as part of the 2011 winter drill program. The 2011 drillholes did not have downhole surveys completed and no measurements were completed on core samples. However, there were four 2010 program drillholes that partially tested the Rose North Zone but downhole surveys and probe density determinations were only achieved for part of one of these drillholes (K-10-66), which tested the zone at 300 m below surface and represents some of the deepest testing of the zone to date. All of the 2011 drillholes tested the zone within approximately 200 m below surface. Therefore, there is not very much information available for determining the density of the weathered iron formation that comprises the Rose North mineralization that has been drilled during the 2010 and 2011 programs. WGM has reviewed the density probe information for drillhole K-10-66 and compared probe densities for weathered and altered rock and less weathered rock with calculated densities estimated from the linear relationship:  $\text{Density} = 0.0294 \times \%TFe + 2.68$ .

WGM does not consider the data very reliable because there are few samples, logged depths may not be precisely equivalent to probe depths and the calibration of the density probe may not be optimal for the type of material. However, the data does suggest that for intervals that are more weathered and altered probe density is depressed more relatively to calculated density than for intervals that are logged as being less weathered and altered. The effects of weathering may be more severe and more irregular closer to the surface. Alderon for its Mineral Resource estimate for the Rose North Zone used a value of 3.3 for all mineralization. Based on the limited data available, WGM is of the opinion that this value is reasonable.

WGM recommends that Alderon complete pycnometer pulp SG and bulk density determinations on whole routine assay sample intervals and compare results to confirm that pycnometer SG and bulk density measurements generate similar results and correlate strongly with %TFe. A selection of bulk density determinations on "waxed" core of altered and weathered intervals should also be carried out. WGM further recommends that Alderon strengthen its core handling, logging and sampling routines in order to locate and fix core block meterage errors before logging and sampling is completed. The positive consequence of finding and fixing these errors would be to make the probe densities more valuable. WGM would argue however, that for fresh unweathered OIF, probe densities provide little to no advantage over estimating rock density from assay results. However, where rocks are weathered and leached, probe densities would have a distinct value.

## ***Drilling***

### *Historic Drilling*

In 1957, IOCC remapped an area of 86.2 km<sup>2</sup> to the west of Duley Lake on a scale of 1" = 1,000 ft and test drilled shallow holes throughout the area through overburden cover to determine areas underlain by iron formation. Dip needle surveying served as a guide for determining the locations of iron formation in drift-covered areas.

272 holes aggregating a total of 7,985 m (26,200 ft) were drilled during IOCC's 1957 program. Approximately 66 of these holes were located on the Property. It was reported that there were no new deposits found as a result of the drilling, however, definite limits were established for the iron formation outcrops found during previous geological mapping.

In 1979, one diamond drill hole was drilled by LM&E near the north end of Elfie Lake. The hole (No. 57-1) was drilled vertically to a depth of 28 m and did not encounter oxide iron formation. In 1983, LM&E collared a 51 m deep (168 ft) diamond drill hole 137 m north of Elfie Lake (DDH No. 57-83-1). The drillhole encountered iron formation from 17 m to a depth of 51 m. Of this, however, only 2 m was oxide facies. Core recovery was very poor, (20%).

#### *Altius 2008 Drilling Program*

Altius' 2008 drilling program consisted of 27 holes totaling 6,129.5 m (including two abandoned holes which were re-drilled) testing the Mills Lake, Mart Lake and Rose Lake iron occurrences. Drilling was carried out between June and October by Lantech Drilling Services of Dieppe, New Brunswick, using a Marooka mounted JKS300 drill rig. A second, larger drill rig was added to the program in September, to help complete the program before freeze-up. The second rig was a skid mounted LDS1000 towed by a Caterpillar D6H dozer. Both drills were equipped for drilling BTW sized core. Drilling took place on a two-shift per day basis, 20 hours per day, and seven days per week. The remaining four hours were used up with travel to and from the drill site and shift change.

Drillhole collars were spotted prior to drilling by chaining in the locations from the closest gridline picket. Drilling azimuths was established by lining up the drill by sight on the cut gridlines. Drill inclinations were established using a compass on the drill head.

Once a drillhole was finished, the Drill Geologist placed a fluorescent orange picket next to the collar labeled with the collar information on an aluminum tag. The X, Y and Z coordinates for these collar markers were surveyed using handheld GPS. Generally, casing was left in the ground where holes were successful in reaching bedrock.

Downhole surveys were systematically performed by the driller every 50 m using a Flexit instrument. Azimuth, inclination and magnetic field data were recorded by the driller in a survey book kept at the drill. A copy of the page is taken from the book, placed in a plastic zip lock bag and placed in the core box and the test was recorded by the geologist.

#### *Alderon 2010 Drilling Program*

The 2010 drill program consisted of 25,895 m NQ diamond drilling. The objective of the program was to delineate an Inferred iron oxide Mineral Resource of 400-500 MT on two areas: the Rose Central and Mills Lake deposits. The drilling included testing the Rose North Lake Zone, the South West Rose Lake Zone and the Elfie Lake/South Rose Zone. The 2010 program included: borehole geophysics on many of the 2008 and 2010 holes, detailed 3-D, DGPS surveying of 2008 and 2010 drillhole collars, and logging and sampling of drill core including the relogging of 2008 drillholes.

Landdrill International Ltd. ("**Landdrill**") based in Notre-Dame-du-Nord, QC was the Drill Contractor for the entire campaign. Throughout the campaign, between three and five diamond drill rigs were operating. Some rigs were brought in for special purposes, like a heli-supported drill for several holes on Rose North and a track-mounted drill to access an area with a restricted access permit. A total of 82 holes were collared, but only 72 holes were drilled to the desired depths, with the remaining holes being lost

during casing or before reaching their target depth because of broken casing, detached rods, bad ground, etc.

Several Rose Central Lake drillholes also tested the Rose North Zone at depth, allowing for a preliminary evaluation.

The drill campaign consisted of three continuous and at times, simultaneous phases of exploration:

1. The drilling began on the north-east extent of the Rose Central Lake trend (L22E) and progressed south-west along the established 200 m spaced north-west/south-east oriented gridlines to section L8E. Each section was drilled and interpreted with the interpretation extrapolated and integrated into previous sections.
2. Towards the middle of the program, drilling expanded to test the Rose North and South-West Rose zones, also following 200 m spaced lines. This expansion was done by increasing the number of drills on the Property to allow focus to continue on the Rose Central Zone. The Rose North and South-West Rose zones were difficult to test due to the topography, thick overburden and swampy terrain.
3. The last phase of exploration focused on the Mills Lake Deposit and utilized two drills (one heli-supported, the other self-propelled track driven) over eight weeks.

Drilling on the South-West Rose Zone was limited to two cross sections. Drilling was difficult due to a combination of thick overburden (37-65 m vertical depth) with deep saprolitic weathering. Core recovery ranged from adequate to very poor. The weathering decreased at depths below 170 vertical meters, but most holes did not achieve that depth. Drilling on this target was suspended due to poor production.

Drilling on the Rose North Zone was limited to two sites due to accessibility. The terrain overlying this target is swampy lowland surrounding a shallow lake. Several holes testing the Rose Central Deposit were extended to test the deeper portions of this North Zone and indicate this zone requires additional drilling and may significantly contribute to the overall Rose Lake tonnage. This target is best tested during a winter program when the area is frozen and more readily accessible.

Core recovery was generally very good throughout the drilling focused on the Rose Central and Mills Lake deposits and is not a factor of the Mineral Resource estimate. Core recovery is often poor for the drilling on the Rose North Zone due to intensive weathering along fault systems.

Prior to drilling, the drillhole collars were spotted with a handheld GPS. The drilling azimuths for inclined drillholes were established by lining up the drill on fore-sight and/or back-sight pickets previously aligned along the desired azimuth, parallel with the previously surveyed gridlines. Drill inclinations were established with a protractor fixed on the drill head. When a hole was completed, a post was placed in the collar of the hole. This post was temporarily surveyed with a handheld GPS. Subsequently, at the end of the drilling campaign, the X, Y and Z coordinates of all the new drillholes and the 2008 drillholes were precisely DGPS surveyed using dual frequency receivers in Real-Time Kinematic mode by the land surveying firm N.E. Parrott Surveys Limited (“**Parrott**”) of Labrador City, NL, and tied into the federal geodesic benchmark.

Most of the 2008 and 2010 collars were identified and surveyed during the first (October 23rd to 27th) or second (December 5th) surveying campaign. Two collars, K-08-05 and K-10-43 could not be located.

As part of the borehole geophysics program and immediately after the termination of the drillhole,

downhole tests were done with a north-seeking gyroscope instrument by DGI while the drill rig was still on site.

The downhole attitude surveys were performed with the rods inside the borehole to prevent the borehole from collapsing, thus minimizing risk to the equipment. Boreholes drilled in 2008 (K-08 designation) only had casing shots completed to eliminate the risk of open-hole logging.

A series of boreholes, including K-08-20, K-10-25, K-10-27, K-10-30 and K-10-35 were revisited later in the program. These boreholes were now open holes and only casing shots were repeated to minimize risk to the gyro. These results were compared to the previous measurements and repeated within the error range of the instrument.

During the program, it was detected that the azimuth information produced by the gyro, did not match the planned azimuths of the boreholes. Parrott was hired by DGI to provide corroboration to either the planned or measured azimuths of the boreholes, and Parrott, during its December 5th visit, surveyed the azimuths of 24 drillholes. These results were received in early November 2010. The Parrott azimuths for 20 of the 24 drillholes correlated most closely with the planned azimuths. For four drillholes, (K-10-60, K-10-25, K-10-96 and K-10-94A), the planned azimuths departed from the Parrott azimuths by more than 5 degrees. As a result, DGI recommended that the gyro instrument be immediately removed from the field for problem diagnosis at the manufacturer's facility.

A sensor was replaced and extensive calibration checks were performed at the manufacturer's facility with DGI's Vice President of Operations in attendance. The calibration checks demonstrated a high degree of repeatability and accuracy for the instrument. Once tests were completed to the satisfaction of the manufacturer and DGI, the gyro was returned to the Kami Project.

A thorough review of all calibration data, QA/QC tests, and repeat field measurements compared to the Parrott collar surveys and planned drill azimuths, indicated that the gyro information should be treated as relative. That is, prior to having repairs completed by the manufacturer, the instrument measured the correct relative change in azimuth downhole, but not the correct absolute azimuth. This is the same method as used for normal gyro data. The relative accuracy of the instrument throughout the duration of the Project is supported by the manufacturer.

Alderon elected to use the planned azimuths as the collar azimuths of all of the 2008 and 2010 drillholes and adjust the DGI gyro downhole azimuths to the planned collar azimuths. These corrections were also applied to the Optical Televiewer ("OTV") structure data to compute orientations for the picked structures.

DGI employed a multi-parameter digital logging system designed by Mount Sopris Instrument Co. And along with gyroscopic downhole drillhole attitude surveying included, natural gamma, poly electric, magnetic susceptibility, calliper, and OTV instrumentation. Sixty-nine boreholes were surveyed during this Project with various probes. Once a final data set was completed, a statistical characterization was performed using the physical properties data.

#### *Alderon 2011 Winter Drilling Program*

The program began in early February and was completed in the middle of April. Total drilling aggregated 4,625 m in 29 drillholes but because of drilling difficulties many holes were lost and had to be re-drilled. All drilling except for one hole was done on the Rose North Deposit. This one hole, K-11-117 – 336 m was completed on the Rose Central Deposit and was for the purpose of collecting a sample for metallurgical testwork. It was a twin of K-10-42. Landdrill was again the drilling contractor.

Core recovery continued to be poor for the winter 2011 near-surface drilling on the Rose North Zone due to intensive weathering along fault systems. The poor core recovery is a factor influencing categorization of the Rose North Mineral Resources.

Drillhole collars were spotted by a geotechnical crew member using hand-held GPS aligned along cut grid lines. Dips were set at time of drill setup using an inclinometer. For six of the drillholes downhole attitude surveys were completed using a Reflex Instruments EZ-Shot. This is a magnetic instrument so the azimuths are of no value, but the drillhole inclinations are of value and are retained in Alderon's database and used to plot the drillholes. Neither downhole inclinations nor azimuths were measured in any of the other drillholes.

At the end of the program a crew from Parrott surveyed the collars for position and azimuth. Collars for four of the drillholes (K-11-103, 105, 109 and 111) could not be located and were not surveyed by Parrott. Their locations are defined by setup coordinates. The drillhole dips in the database are currently those measured at drillhole setup.

### ***Sampling Preparation, Analysis and Security***

#### *Alderon 2010 – 2011 Drill Core Handling and Logging*

Core logging was conducted by several geologists. After the core was placed in the core trays, the geologists checked the core for meterage blocks and continuity of core pieces. The geotechnical logging was done by measuring the core for recovery and rock quality designation (“**RQD**”). This logging was done on a drill run block to block basis, generally at nominal three meter intervals. Core recovery and rock quality data were measured for all holes. Drill core recovery in most cases was close to 100% with virtually every 3 m run. The RQD was generally higher than 92%. Lower values were observed and measured for the first 3 to 5 m of some holes where the core is slightly broken and occasionally slightly weathered. Near fault shears, RQD dropped somewhat but was rarely below 65% and this mainly occurs in the schistose stratigraphic hanging wall Menihek Formation, rather than in the iron formation.

The core was logged for lithology, structure, and mineralization, with data entered directly into laptop computers using MS Access forms developed by Alderon geomatics staff. Attention was directed at evaluating the percent content of iron oxides as well as the major constituent gangue components of the iron formation using a quaternary diagram developed by Mr. Edward Lyons. Drillhole locations, sample tables and geotechnical tables were created in MS Access separately and can be merged with the geological tables at will.

Prior to sample cutting, the core was photographed wet and dry. Generally, each photo includes five core boxes. A small white dry erase board with a label is placed at the top of each photo and provides the drillhole number, box numbers and from-to in meters for the group of trays. The core box was labelled with an aluminum tag containing the drillhole number, box number and From-To in meters stapled on their left (starting) end. Library samples approximately 0.1 m long of whole core were commonly taken from most drillholes to represent each lithological unit intersected. Once the core logging and the sampling mark-up was completed, the boxes were stacked in core racks inside the core facility. After sampling, the core trays containing the remaining half core and the un-split parts of the drillholes were stored in sequence on pallets in a locked semi-heated warehouse located in the Wabush Industrial Park. The warehouse contains the entire core from Altius' 2008 and Alderon's 2010 – 2011 drilling campaigns.

The core was brought in twice daily at shift changes to Alderon's core facility, in a building in Labrador City, NL, in order to reduce the possibility of access by the public near the drill staging area southwest of



Labrador City. Public access to the core facility was restricted by signage and generally closed doors. Only Alderon or its contractor's employees were allowed to handle core boxes or to visit the logging or sampling areas inside the facility. Split core samples were packed in sealed steel drums and strapped onto wood pallets. The pallets were picked up at the core facility with a forklift and loaded into a closed van and carried by TST Transport to SGS Lakefield, via Baie-Comeau, Québec and Montréal.

#### *Alderon 2010 – 2011 Sampling Method & Approach*

The current sampling approach was similar to the previous Altius exploration programs with most samples taken to start and stop at the meterage blocks, at 3.0 m intervals, with variation in sample limits adaptable to changes in lithology and mineralization. Samples were therefore generally 3.0 m long and minimum sample length was set at 1.0 m. Zones of unusual gangue, like Mn mineralization, or abnormally high carbonate were treated as separate lithologies for sampling.

The bracket or shoulder sampling of all "ore grade" mineralization by low grade or waste material was promoted. The protocol developed for the program also stated that silicate and silicate iron formation intervals in the zones of oxide iron formation should generally all be sampled unless exceeding 20 m in intersection length. In the abnormal circumstance where core lengths for these waste intervals were greater than 20 m, then only the low/nil grade waste intervals marginal to OIF were to be sampled as bracket samples.

In-field Quality Control materials consisting of Blanks, Certified Reference Standards or quarter core Duplicates were inserted into the sample stream with a routine sequential sample numbers at a frequency of one per ten routine samples. The Duplicates were located in the sample number sequence within nine samples of the location of its corresponding "Original". The Duplicates accordingly, do not necessarily directly follow their corresponding Original.

Similar to the 2008 practice, the 2010 – 2011 practice entailed the use of three tag sample books. Geologists were encouraged to try and use continuous sequences of sample numbers. The Geologists were instructed to mark the Quality Control ("QC") sample identifiers in the sample books prior to starting any sampling.

The sample intervals and sample identifiers are marked by the Geologist onto the core with an arrow, an indelible pen or wax marker. The sample limits and sample identifiers are also marked on the core tray.

The book-retained sample tags are marked with the sampling date, drillhole number, the From and To of the sample and the sample type (sawn half core, Blank, Duplicate or Standard) and if Standard, then also record the identity of the Standard. The first detachable ticket recording the From and To of the sample was stapled into the core tray at the start of the sample interval. Quality Control sample tags were also stapled into the core tray at proper location. Quarter core Duplicates were flagged with flagging tape to alert the core cutters.

The core cutters saw the samples coaxially, as indicated by the markings, and then placed both halves of the core back into the core tray in original order. The sampling technicians completed the sampling procedure which involves bagging the samples.

The second detachable sample tags are placed in the plastic sample bags. These tags do not record sample location. As an extra precaution against damage, the sample number on these tags was covered with small piece of clear packing tape. The sample identifiers were also marked with indelible marker on the sample bags. The bags are then closed with a cable tie or stapled and placed in numerical order in the sampling area to facilitate shipping. The samplers inserted the samples designated as Field Blanks before shipping.

Samples are checked and loaded into pails or barrels for shipping. Pails or barrels are individually labelled with the laboratory address and the samples in each shipping container are recorded.

#### *2008 Sample Preparation and Assaying*

In-lab sample preparation was performed by SGS Lakefield at its Lakefield, Ontario facility. SGS Lakefield is an accredited laboratory meeting the requirements of ISO 9001 and ISO 17025. Samples were crushed to 9 mesh (2 mm) and 500 g of riffle split sample was pulverized to 200 mesh (75 µm).

All of Altius' drill core samples were subject to a standard routine analysis including whole rock analysis ("WR") by lithium metaborate fusion XRF, FeO by H<sub>2</sub>SO<sub>4</sub>/HF acid digest-potassium dichromate titration, and magnetic Fe and Fe<sub>3</sub>O<sub>4</sub> by Satmagan. Neither the Satmagan nor the FeO determinations were completed on all in-field QA/QC materials. A group of 14 samples were analyzed for S by LECO, with sample selection based on visual observation of sulphide in the drill core. A total of 676 samples including in-field QC materials were sent for assay.

Altius conducted an in-field QA/QC program during initial core sampling. SGS Lakefield also conducted its own in-lab internal QA/QC program.

In the field, Standard, Blanks and Duplicate samples were inserted alternately every 10th sample. The material used for Blank was a relatively pure quartzite and was obtained from a quarry outside of Labrador City. Duplicate samples were collected by quarter sawing the predetermined sample intervals and using ¼ core for the Duplicate sample, ¼ for the regular samples, and the remaining half core was returned to the core tray for reference. The Certified Standard Reference materials used were CANMET's TBD-1 and SCH 1; CANMET's FER-4 was used when the TBD-1 material was exhausted in the latter half of the program. This material was pre-packaged in paper envelopes and, as required, a sachet was placed in a regular sample bag and given a routine sequential project sample number.

A review of the results for the 2008 program Certified Reference Standards, along with results for Alderon's 2010 samples, show that in general, the Standards performed well as indicated by the clustering of results and the concentration averages which are close to the Certified Reference values. The Standards were not however assayed for FeO, nor were any Satmagan determinations completed. Albeit, such analysis would not have generated a great deal of information, as both of the Standards used for the 2008 program contained little magnetite.

SGS Lakefield's in-laboratory QA/QC program consisted of assays on Preparation Duplicates which it calls Replicates and Analytical Duplicates which are re-assays of the same pulps., SGS Lakefield refers to these re-assays as Duplicates on its Certificates of Analysis. Preparation Duplicates are second pulps made by splitting off a second portion from a coarse reject. SGS Lakefield prepared and assayed Preparation Duplicates and Preparation Blanks at a rate of one every 50 to 70 routine samples. Analytical Duplicates which involved a new fusion and disc, were prepared and assayed at a frequency of one sample every 20 to 25 routine samples.

#### *2010 – 2011 Sample Preparation and Assaying*

The Primary laboratory for Alderon's 2010 – 2011 exploration program was again SGS Lakefield. Sample preparation for assay included crushing the samples to 75% passing 2 mm. A 250 g (approximate) sub-sample was then riffled out and pulverized in a ring-and-puck pulverizer to 80% passing 200 mesh. Standard SGS Lakefield QA/QC procedures applied. These included crushing and pulverizing screen tests

at 50 sample intervals. Davis Tube tests were also performed on selected samples. The material for the David Tube tests was riffled out directly from the pulverized Head samples.

Alderon's current drill core sample assay protocol was similar to the 2008 protocol with WR analysis for major oxides by lithium metaborate fusion XRF requested for all samples and magnetic Fe or Fe<sub>3</sub>O<sub>4</sub> determined by Satmagan. For a proportion of 2010 samples, FeO was determined on Heads by H<sub>2</sub>SO<sub>4</sub>/HF acid digest - potassium dichromate titration. For the 2011 winter program FeO was determined on all Head samples. Generally where FeO on 2010 Heads was not completed, Davis Tube tests were performed. Sample selection criteria for 2010 samples for Davis Tube testwork included magnetite by Satmagan greater than 5%, or hematite visually observed by the core logging geologists. Where Davis Tube tests were completed, Davis Tube magnetic concentrates were generally analysed by XRF for WR major elements. During the first half of the 2010 program, FeO was also determined in Davis Tube tails. Alderon made this switch in methodology because it believed Davis Tube tails were being overwashed. For its winter 2011 program Davis Tube tests were completed on all samples containing appreciable magnetite, but no determinations of FeO on Davis Tube tails (FeO\_DTT) were performed.

In addition to the "routine" assaying 175, 0.1 m 2010 samples of half split core samples were sent to SGS Lakefield for bulk density determination by the weighing-in-water/weighing-in-air method. The purpose of this work was to provide rock density for different rock types and types of mineralization to calibrate DGI's downhole density probe. These samples were taken from the upper 0.1 m long intervals of routine assay sample intervals, each generally 3 m to 4 m long. After SGS Lakefield completed the bulk density tests, these core pieces were returned to the field so they could be replaced back into the original core trays. In addition to the bulk density testwork, 33 sample pulps had SG determined by the gas comparison pycnometer method.

In 2010, Alderon also cut 58 new samples from the 2008 drill core that had not been previously sampled and assayed.

A total of 5,527 samples, including new assays from the 2008 drill core and including in-field QC materials were sent for assay.

For the 2011 winter program a total of 857 samples (including in-field QC materials were sent for assay to SGS-Lakefield. No Secondary Laboratory assaying has been completed but re-assays of a selection of previous samples was completed.

The 2010 and winter 2011, QA/QC program, similar to the 2008 program, included components conducted by Alderon that were initiated during core sampling in the field and also components operated by SGS Lakefield's as part of its own internal QA/QC program. Alderon's protocols included in-field components involving the insertion of Blanks, Duplicates and Standards into the sample stream going to SGS Lakefield, plus the re-assaying of a selection of 2008 program pulps and the Check Assaying of a selection of pulps at a secondary laboratory. Inspectorate, located in Vancouver, B.C., was the secondary laboratory for the program. Inspectorate holds a number of international accreditations, including ISO 17025.

#### *2010 Alderon In-field QA/QC*

In the field, Standard, Blanks and Duplicate samples were inserted into the sample stream alternately every 10th sample. The Certified Standard Reference materials used were CANMET's TBD-1, changed later to FER-4 and SCH 1. This material was pre-packaged in transparent bags and, as required, a sachet was placed in a regular sample bag and given a routine sequential project sample number.

Duplicate samples were collected by quarter sawing the predetermined sample intervals and using ¼ core for the Duplicate sample and ¼ for the regular samples, with the remaining half core returned to the core tray for reference. The material used for Blanks was the same material used for the 2008 program being crushed quartzite, located from local outcrops.

In addition to the in-field insertion of Blanks, Duplicates and Standards, a selection of Altius sample pulps originally assayed as part of the 2008 program were retrieved from storage and re-assayed. Initial results from this re-assaying raised some issues concerning Satmagan results for several samples and more assaying to address these issues involving preparation of new pulps from 2008 program rejects was conducted.

Alderon maintained active monitoring of field-QA/QC results as they were received and undertook reassaying when assay or sample irregularities were observed. A tracking table was used to track QA/QC issues. WGM recommends that Alderon develop a written protocol specifying the criteria for identifying and selecting questionable sample results (QA/QC failures) and the steps to be taken when dealing with questionable sample results.

SGS Lakefield's internal QA/QC for the 2010 program was similar to its practice in 2008, including screen tests for crushing and pulverizing, Preparation Duplicates, Preparation Blanks, Analytical Duplicates, and Blanks and Standards. Generally, Duplicate and Original results were strongly correlated and the Certified Reference Standards performed well.

#### *Winter 2011 Alderon In-field QA/QC*

Alderon samplers inserted 24 Blanks into the sample stream during the 2011 winter program. The material used for Blanks was the same as used previously for the 2010 program. All the Blanks returned satisfactory assay results, indicating minimal sample mix-ups in the field or in the lab.

Sixteen quarter core Duplicates were submitted to the Primary assay laboratory during the 2011 winter drill program. These samples were submitted blind to the lab and provided with a routine sample identifier. All performed well. The field-inserted Certified Reference Standards for the winter 2011 program again comprised CANMET materials FER-4 and SCH-1. Twenty-three instances of FER-4 and 16 instances of SCH-1 were inserted into the sample stream submitted to SGS-Lakefield. The results indicate that SGS-Lakefield generally produced accurate assay results, but for rare occasions, errors do occur.

Alderon's 2011 QA/QC program has generally shown that SGS-Lakefield is providing accurate assay data. Certainly there are occasional samples in the assay database where %FeO<sub>H</sub>, %TFe and/or %magFeSat are out of balance and can be readily spotted where re-assaying might result in better quality data.

#### *SGS Lakefield Primary Laboratory QA/QC*

As mentioned, SGS Lakefield is an accredited laboratory and operates its own internal QA/QC program. SGS Lakefield's internal QA/QC for programs 2008 to 2011 included screen tests for crushing and pulverizing, assays on Preparation Duplicates, Preparation Blanks, Analytical Duplicates, and Blanks and Standards. These quality control analyses were completed both on Heads and Davis Tube products. The samples for 2008 and 2010 span Central and Rose North and Mills Lake; the samples for the 2011 winter program are only from Rose North only. None of the sample repeats for winter 2011 were assayed for FeO.

WGM's assessment indicated that for most samples the assay results are strongly positively correlated. The plots that WGM generated illustrated that for an occasional determination, random irregularities can occur, probably due to sample mix-up in the lab or during reporting the results. Closer monitoring of in laboratory QA/QC results would provide identification of similar questionable results. Assay results for Analytical Duplicates in terms of %magFeSat are strongly correlated, except for one 2008 sample where an error has obviously occurred. Assays for Analytical Duplicates are as expected more strongly correlated than for Preparation Duplicates, as Preparation Duplicates include both sub-sampling and analytical variance.

The Analytical Duplicates discussed above are all Head analysis. SGS-Lakefield also assayed Analytical Duplicates during analysis of Davis Tube products.

SGS-Lakefield's Analytical Blanks, for the 2008 and 2010 (N=137), 2011 winter (N=19) Head assay programs all returned assays of less than 0.01% TFe. Preparation Blanks generally returned approximately 5% to 6% TFe, although there were a few higher values indicating some occasional carryover iron during sample preparation. Analytical Blanks for the assay of Davis Tube concentrates also all returned assays of less than 0.01% TFe.

#### *Secondary Laboratory – Inspectorate Check Assay Program*

Two hundred and eighty-seven pulps from eight different Alderon drillholes representing different lithology and mineralization were forwarded to Inspectorate Labs, Vancouver in January 2011.

Analysis for WR by XRF, S, FeO by potassium dichromate titration and Satmagan were completed. Initially, the FeO analysis was completed using a HCL-H<sub>2</sub>SO<sub>4</sub> digestion. Subsequently, a selection of samples was reanalyzed using a HF-H<sub>2</sub>SO<sub>4</sub> digestion. The HF - H<sub>2</sub>SO<sub>4</sub> digestion is similar to SGS Lakefield's digestion and is required in order to break down silicates so near total Fe can be measured.

The WR Check Assaying results indicate that SGS Lakefield's assays of TFe, SiO<sub>2</sub> and MnO are reliable and unbiased. The FeO results from Inspectorate are strongly positively correlated with original SGS Lakefield results, but are biased slightly lower. The Satmagan determinations completed at Inspectorate are also highly correlated with original SGS Lakefield results, but are systematically biased slightly higher. If Inspectorate's Satmagan and FeO results are more accurate than SGS Lakefield's, it would mean that estimates of %magFe for the Mineral Resource estimate are perhaps slightly low. Assuming Inspectorate's FeO and Satmagans are more correct than SGS Lakefield's, then the estimated %hmFe probably would not change much because Inspectorate's results are both higher in magnetic Fe and lower in FeO.

#### *WGM Comments on 2008, 2010 and 2011 Sampling and Assaying*

WGM concluded that, Alderon's 2010 and 2011 programs included credible sampling, assaying and QA/QC components that helped to assure quality exploration data. Its programs included the relogging of Altius' 2008 core and the re-assaying of a selection of Altius' samples. QA/QC protocols for both Altius' and Alderon's programs included in-field insertion of Standards, Duplicates and Certified Reference Standards. In addition, Alderon supplemented its 2010 regular assaying with Secondary Laboratory Check assaying. Alderon maintained active monitoring of field-QA/QC results as they were received and undertook re-assaying when assay or sample irregularities were observed. A tracking table was used to track QA/QC issues.

Some errors in logging, sampling and assaying are identifiable from results returned, but WGM has not identified any material errors that delegitimize logging, sampling and/or assaying results and believes

program results are of sufficient quality to support the Mineral Resource estimate. WGM also made some specific recommendations to Alderon to bring more awareness to its logging, database and QA/QC procedures.

### ***Mineral Resource Estimate***

#### *Mineral Resource Estimate Statement*

WGM completed a Mineral Resource estimate for the Kami Property mineralized areas that have sufficient data to allow for continuity of geology and grades. WGM modeled the Rose Central and Mills Lake deposits and audited Alderon's work on the Rose North Deposit. A summary of the Mineral Resource estimates are provided in Table 2 and Table 3. Rose North is kept separate from Rose Central, as it is all Inferred category and was completed with slightly different parameters and has more hematite mineralization, however, these two deposits are likely to be combined for any future Mineral Resource estimates and/or mining studies. The effective date of the Mineral Resource estimates are October 26, 2011.

The classification of Mineral Resources used in this Report conforms to the definitions provided in NI 43-101. WGM used the blocks within the wireframes that had a distance of 100 m or less to be Indicated category and +100 m to be Inferred category for Mills Lake and 150 m or less for Indicated and +150 m for Inferred for Rose Central. The majority of the deeper mineralization is categorized as Inferred due to the sparse drillhole information below about 250 m from surface, and the maximum depth that the mineralization was taken to is 150 m elevation (approximately 450 m vertically from surface). All the Mineral Resources in the Rose North Deposit are classified as Inferred.

WGM further confirms that, as a result of its classification, it has followed the guidelines adopted by the Council of the Canadian Institute of Mining Metallurgy and Petroleum ("**CIM**") Standards.

**TABLE 2: CATEGORIZED MINERAL RESOURCE ESTIMATE FOR ROSE CENTRAL AND MILLS LAKE DEPOSITS (COG 20% TFE)**

Category	Zone	Tonnes (Million)	Density	TFe%	magFe%	hmFe%	Mn%
<b>Indicated</b>	Rose Central Zone - Hematite-rich	66.7	3.60	31.4	6.9	23.6	2.88
	Rose Central Zone - Magnetite-rich	309.4	3.54	29.5	21.1	5.0	1.27
	<b>Total Indicated Rose Central Zone</b>	<b>376.1</b>	<b>3.55</b>	<b>29.8</b>	<b>18.6</b>	<b>8.3</b>	<b>1.56</b>
	Mills Lake Zone - Hematite-rich	12.2	3.68	34.2	2.7	30.7	4.80
	Mills Lake Zone - Magnetite-rich	93.8	3.56	30.1	24.5	2.8	0.57
	Mills Lake Zone - Upper Magnetite-rich	8.2	3.55	29.6	23.0	1.3	0.56
	<b>Total Indicated Mills Lake Zone</b>	<b>114.1</b>	<b>3.57</b>	<b>30.5</b>	<b>22.1</b>	<b>5.7</b>	<b>1.02</b>
<b>Inferred</b>	Rose Central Zone - Hematite-rich	10.3	3.60	31.6	7.5	23.9	3.15
	Rose Central Zone - Magnetite-rich	35.7	3.54	29.3	22.6	3.4	1.16
	<b>Total Inferred Rose Central Zone</b>	<b>46.0</b>	<b>3.55</b>	<b>29.8</b>	<b>19.2</b>	<b>8.0</b>	<b>1.61</b>
	Mills Lake Zone - Hematite-rich	8.3	3.70	34.7	2.6	31.1	4.60
	Mills Lake Zone - Magnetite-rich	60.4	3.56	30.2	24.8	2.8	0.60
	Mills Lake Zone - Upper Magnetite-rich	3.3	3.55	29.8	23.7	1.3	0.55
	<b>Total Inferred Mills Lake Zone</b>	<b>71.9</b>	<b>3.58</b>	<b>30.7</b>	<b>22.2</b>	<b>6.0</b>	<b>1.05</b>

**TABLE 3: INFERRED MINERAL RESOURCE ESTIMATE FOR ROSE NORTH DEPOSIT (COG 20% TFE)**

Category	Zone	Tonnes (Million)	Density	TFe%	magFe%	hmFe%	Mn%
<b>Inferred</b>	Rose North (Hematite Rich Zone)	223.8	3.30	32.8	3.5	29.2	1.27
	Rose North (Magnetite Rich Zone)	256.1	3.30	28.2	18.8	6.2	0.64
<b>Total Inferred</b>	Total Rose Central Zone	479.9	3.30	30.3	11.7	16.9	0.93

Mineral resources that are not mineral reserves do not have demonstrated economic viability.

The data used to generate the Mineral Resource estimate was supplied to WGM by Alderon. The Gemcom drillhole database consisted of 134 diamond drillholes; including "duplicated" hole numbers designated with an "A" nomenclature, meaning the hole was re-drilled in whole or in part, due to lost core/bad recovery. A total of 68 drillholes totaling 30,450.6 m were used for the current Mineral Resource estimate; 48 holes at Rose Central, 20 holes at Mills Lake and 25 holes at Rose North. These holes were dispersed along the iron mineralization - approximately 1,600 m of strike length and 700 m of width on Rose Central, 200 m width on Rose North and 1,400 m by 800 m on Mills Lake. The database tables as originally supplied to WGM contained some errors and these were corrected and confirmed by Alderon before proceeding with the Mineral Resource estimate. In general, WGM found the database to be in good order, but it was still a work in progress. After the errors that WGM identified were corrected, and some adjustments were made to some mineralized intervals in the hematite-rich zone, there were no additional database issues that would have a material impact on the Mineral Resource estimate, so WGM proceeded to use the most up to date database supplied by Alderon. WGM supplied Alderon with new iron values in hematite for Rose North based on WGM's calculations and this was used for the re-interpolated grades. This database will be added once more drilling is completed, leading to a better understanding of the structure, geology and mineralization in these areas and an upgrade of the categorization of the Mineral Resources.

For this Mineral Resource estimate, the holes were drilled on section lines which were spaced 200 m apart for the deposits in the main area of mineralization. Drillholes on cross sections were variably spaced and with variable dips (and directions) leading to mineralized intersections anywhere from less than 50 m to more than 250 m apart on adjacent holes. Most cross sections contained at least three holes and some had as many as ten holes passing through the mineralized zone due to the variable drilling pattern, however, in the deposits, the closest spaced drilling was near the surface (in the first 150 to 200 m). The deeper mineralization, i.e., below 200 m vertical depth, has been tested by fewer holes and the zones are open at depth. The zone interpretations of the mineralization were digitized into Gemcom and each polyline was "snapped" to drillhole intervals allowing for the creation of a true 3-D wireframe. Mineralized boundaries were digitized from drillhole to drillhole which showed continuity of strike, dip and grade, generally from 100 m to 200 m in extent, and up to a maximum of about 400 m on the ends of the zones and at depth where there was no/little drillhole information, but only if the interpretation was supported by drillhole information on adjacent cross sections or solid geological inference. In each deposit, the larger and more continuous hematite-rich zones/units/beds within the main magnetite body that appeared to have fairly good correlation between holes and through multiple cross sections were modeled separately.

The extensions of the mineralization on the ends and at depth took into account the fact that the drilling pattern was irregular and that a proper grid was not complete; hence many drillholes did not penetrate the entire stratigraphy/zone. The 3-D model for Rose Central and Rose North was continued at depth as long as there was drillhole information, however, this extension was taken into consideration when classifying the Mineral Resources and these areas were given a lower confidence category in Rose Central. Since the overall drilling density was low in Rose North, the entire Mineral Resource was given the lowest categorization level of Inferred. Even though the wireframe continued to a maximum depth of -135 m (approximately 750 m vertically below surface and extending 100 m past the deepest drilling) for Rose Central and -40 m for Rose North (approximately 600 m below surface), at this time, no Mineral Resources were defined/considered below 150 m elevation.

The Mineral Resource estimates were completed using a block modeling method with no grade capping, and for the purpose of the PEA/Technical Report, the grades have been interpolated using an Inverse Distance estimation technique with a set of equal length (3 m) composites generated from the raw drillhole intervals. A 3 m composite length was chosen to ensure that more than one composite would be used for grade interpolation for each block in the model and 3 m is also close to the average length of the raw assay



intervals. The grades were well constrained within the wireframes and the results of the interpolation approximated the average grade of the all the composites used for the estimate.

WGM created a variable density model to estimate tonnage for Mills Lake and Rose Central. Most of the iron formation consists of a mix of magnetite and hematite, but there are sections that contain very little hematite and are mostly magnetite, and vice versa. The SG results returned by pycnometer measurements correlate strongly with %total iron on samples, and the DGI probe determined density averaged over the same sample intervals similarly and correlate strongly with %TFe. Using WGM's variable density model, a 30% total iron gives a SG of approximately 3.56. One overall SG of 3.3 was used for the Rose North Mineral Resource estimate, instead of creating a variable density model, as there are currently too many unknowns and the data is insufficient to produce a valid relationship between the two parameters until more analytical results have been returned during the next round of drilling and a better understanding of the weathering profile has been established.

The details of the geology and geometry of the Rose Central mineralized body is quite complex and more drilling is required to get a better understanding of the depth potential, dip and internal detail of the hematite-rich and waste units. However, the gross overall mineralization controls appear to be fairly well understood with the current amount of drilling completed to date. Mineralization for the Rose North Deposit is more hematite-rich than that at Rose Central and the near surface mineralization is also more weathered and oxidized. The deposits have undergone various degrees of folding, but at this stage of exploration, the search ellipse size and orientations for the grade interpolation were kept simple. Based on the current geological knowledge, the ellipse sizes were similar for all deposits, but the orientation and dips changed based on the geological interpretation. For future Mineral Resource estimates and after more drilling information is available, WGM envisions, that due to folding causing orientation/strike complexity and change, different domains will most likely be defined to better control grade distribution along the limbs and to reflect changes in dip/attitude. Alternately, a technique known as unfolding may be applied during the statistical analysis and the grade interpolation.

## ***Mining Operations***

### ***Mining Methods***

For studies at the Pre-Feasibility and Feasibility levels, CIM guidelines require that only material categorized as Measured or Indicated be classified as a reserve. Considering that thus far only a PEA level study has been produced for the Rose Central Deposit, these guidelines require that all material classified as Measured, Indicated, or Inferred be reported as a Mineral Resource.

For the PEA Study the block models for Rose Central and Mills were provided to BBA by WGM. The block models were imported into the MineSight software into two respective Project Control Folders (“PCF”) (i.e. one for Rose Central and one for Mills), as provided, without modifying any of the information given. The model was checked to ensure the validity, and to ensure that the transfer from the WGM files was successful.

Pit optimization was carried out using the true pit optimizer algorithm Lerchs-Grossman 3-D (“LG 3-D”) in MineSight. The LG 3-D algorithm is based on the graph theory and calculates the net value of each block in the model, i.e. profit minus loss. With all mining costs, processing costs, processing recoveries, weighted recovery values and overall pit slope, the pit optimizer searches for the pit shell with the highest undiscounted cash flow. For this Study, all blocks with rock classifications of Measured, Indicated and Inferred will be included in the economic calculations and in the pit optimization process.

The break-even cut-off grade (“COG”) is used to classify the material within the pit limits as ore or waste. The milling cut-off grade used for the Kami Property was strategically taken at 15% total iron. This cut-off grade is slightly higher than the break-even cut-off grade. This is done in order to maximize the NPV for the Property.

The detailed mine design is carried out using the LG 3-D optimized pit shell as a base. In order to estimate in-pit resources, operational factors that are required for a mine are added during the engineered pit design phase. These features include a haulage ramp, safety berms, bench face angles, inter-ramp angles, and bench height. Pit slope parameters as well as waste rock dump design parameters were provided by Stantec.

Resources were estimated for both the Rose Central engineered pit design and the Mills engineered pit design at an in-pit cut-off grade of 15% total iron. Table 4 presents the in-pit Mineral Resource estimate for the Rose Central Deposit. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

**TABLE 4: ROSE CENTRAL IN-PIT RESOURCE ESTIMATE (COG 15% TFE)**

Rose Central- Engineered Pit Design Total Resource Estimate - (COG 15% TFE%)							
		Grades					
Category	(kt)	% TFe	%SiO2	%Mn	%MagFe	%HemFe	Fe Con. (kt)
Indicated	307 755	29.86	44.75	1.63	18.24	8.83	113 869
Inferred	27 373	30.03	44.80	1.68	18.49	8.79	10 128
	<b>Waste (kt)</b>	<b>Total S/R</b>					
Rock	711 853						
OB	46 766						
<b>Total Stripping</b>	758 619	2.26					

The total waste contained in the Rose Central pit is 758.62 Mt, which includes 46.77 Mt of overburden. This results in a stripping ratio of 2.26. In the PEA study performed by BBA , a preliminary mine plan was developed in order to develop capital and operating cost estimates based only on the Rose Central Deposit in-pit resource.

*Mineral Processing and Metallurgical Testwork*

As part of the PEA, BBA developed a metallurgical test plan based on indications from previous testwork performed by Altius as well as on the general mineralogical and geological characteristics of the Rose Central and Mills deposits. The Rose North Deposit was not part of the metallurgical testwork conducted. SGS Minerals Services (“SGS”) were retained to perform the testwork. The objective of the testwork was to evaluate the ore’s amenability to be processed by gravity separation and/or by magnetic separation in order to produce a commercially acceptable, quality product that would allow for the economic development of the Kami Property. An important part of the testwork consisted of evaluating the iron liberation granulometry with the objective of achieving a concentrate particle size distribution as coarse as possible (while maintaining an acceptable iron recovery and grade), in order to provide a wider range of applications and wider marketing flexibility. The testwork results were used in defining a conceptual Process Flowsheet to be used as the design basis for PEA. A recommended testwork program for subsequent testwork required for the next study phase of this project was also developed.

Samples were prepared from drill cores from the Rose Central and Mills deposits. Recognizing that Rose Central comprises three distinct mineralogical zones, a composite sample was prepared for each zone. A composite sample of the three aforementioned zones was also prepared. One composite sample was also prepared for Mills. Rose North was not part of the beneficiation testwork at this time. Each composite sample was tested at three particle size fractions; a coarse fraction (-425/+212 microns), an intermediate fraction (-212/+75 microns) and a fine fraction (-75/+45 microns). The testwork performed consisted of a combination of the following tests:

- Complete chemical assay of the head samples;
- Complete assays and distributions of each size fraction;
- Heavy Liquid Separation (“HLS”) on each size fraction;
- Davis Tube (“DT”) magnetic separation on each size fraction;
- Quantitative Evaluation of Minerals by Scanning Electron Microscopy (QEMSCAN) test for each size fraction to evaluate elemental deportment, oxide liberation and association of various constituents;
- Optical Microscopy;
- Microprobe analysis;
- Wilfley Table (“WT”) tests on selected samples and size fractions; and
- Grindability tests.

The general conclusions drawn from the testwork were as follows:

- In all mineralization zones, the main gangue minerals consist of quartz, carbonates and silicates;
- In Rose Central, manganese is present predominantly in carbonates in the hematite-rich mineralization zone and in silicates in the magnetite-rich zones with manganese also being chemically bonded to the magnetite;
- In Rose Central, the magnetite-rich zone contains unrecoverable iron (in carbonates and silicates) in the order of 13%, compared to about 6% in the zones containing more hematite;
- In Rose Central, iron-oxide liberation (>90% liberated) size for the hematite-rich zone is about 300 µm and in the order of 150 µm for the magnetite-rich zone;
- In Mills, iron-oxide liberation is indicated to be less than 100 µm. Considering the fine liberation size for Mills, it was decided that Process Flowsheet development for the PEA Study would be done for the only Rose Central Deposit. Further testwork was therefore focused only on Rose Central;
- Wilfley Table results for the samples tested from Rose Central indicate an acceptable metallurgical performance;
- Ore grindability results raised the following concerns which will be explored in more detail in the next study phase;
  - One of the five samples tested, exhibited an unusually high Drop-Weight Test result which is not typical of ores in the region. This result was considered an outlier and was discarded for this Study;

- After discarding the aforementioned outlier, the ore operating work index is between 3.7 kWh/t and 4.0 kWh/t;
- The Drop-Weight Test results revealed some evidence of bimodality in the relative density distribution. The consequence of this could be an accumulation of a dense component in the primary mill circulating, leading to possible power problems which could result in a loss of throughput.

Based on the testwork results obtained, it was concluded that a conventional flowsheet consisting of crushing, autogenous grinding and screening, gravity separation using spirals and cobbing of spiral tails, followed by regrinding and magnetic separation, provides a sound design basis for the PEA. The testwork results indicate the following metallurgical performance:

- Combining the concentrates from the spiral circuit (78% of the total concentrate) and from the magnetic circuit (22% of the total concentrate), a concentrate averaging 65.5% Fe, 4.5% SiO<sub>2</sub> and 0.75% Mn can be produced with iron recovery in the order of 82.8% and weight recovery in the order of 37.8%;
- The Particle Size Distribution of the final concentrate is indicated to be acceptable for the sinter fines market; however, further testing is required to validate this.

#### *Recovery Methods and Processing Plant Design*

The metallurgical testwork for the Rose Central Deposit performed during the PEA Study allowed for the development of the process mass balance. BBA's experience on other similar projects allowed for the development of a preliminary water balance. This was used to develop a preliminary process plant design. Considering a target concentrate production of 8.0 Mt/y, the crushing and grinding areas are required to process 21.2 Mt/y of ore. This generates 13.2 Mt/y of tailings for disposal. Based on the Resource Estimate for Rose Central, the mine life will be approximately 15.3 years. These annual tonnages allow for the development of hourly rates in each area of the plant, therefore, major equipment was sized. A major equipment list has been developed and is used for the processing plant capital cost estimate. Power, fuel, consumables and manpower requirements were also estimated for deriving the processing operating cost estimate.

#### *Project Infrastructure*

As part of the PEA study, a preliminary site plan was developed for the Kami Property site. Major site infrastructure consists of the following:

- Rose Central and Mills open pits and associated waste rock dumps;
- Mine infrastructure including employee facilities, mine garage and wash station, warehouse and shops;
- The main processing facilities consisting of the following:
  - Crusher area and crushed ore conveyors;
  - Crushed ore stockpile, reclaim and conveyors;
  - Processing plant including maintenance and service area and employee facilities; and
  - Thickener.

- Concentrate conveyors, train loadout and emergency concentrate stockpile,
- Tailings pipeline;
- Tailings Management Facility (“**TMF**”) and recycled water pumphouse;
- Kami rail loop and rail spur connecting to the QNSL railway;
- Fuel unloading and tank farm;
- Access road and on site roadwork;
- Long Lake raw water pumphouse;
- Power transmission line connecting to utility and main electrical substation; and
- Secondary facilities such as fire protection, communication tower, sewage treatment, etc.

Other infrastructure, contained within the province of Québec, includes Port of Sept-Îles railway loop and spur, car dumper, stacker/reclaimer, concentrate storage and conveyors to common ship loading facility operated by the Port Authority.

#### *Market Studies and Contracts*

Alderon is actively promoting the Property and has engaged in discussions with several potential clients interested in the concentrate which will be produced at the Kami Property facility. Alderon has also been in discussions with service suppliers such as QNS&L and Cliffs’ CFA for rail transportation and with the Port of Sept-Îles for loading concentrate into ships. Excepted as noted below, as of the effective date of the Technical Report, Alderon had not entered into any material commercial agreements with any potential client or service supplier.

Alderon retained the services of Mr. Jan van Veelen, an independent consultant, to perform a market study. The objective of the study was to determine product marketability and sales strategy with an analysis of target markets and potential end-users for the Kami concentrate. The market study provided an overview of the iron ore seaborne market including historic market trends as well as analysts’ forecasts of demand and pricing for iron ore products. Based on the quality of product expected from the Kami operation, and considering the forecasted growth in sinter fines for Asia and more specifically for China, it was concluded that Alderon should pursue opportunities with potential clients in China.

Subsequent to the effective date of the Technical Report, a separate product and marketability review was conducted in late 2011 by an independent consultant. The study confirmed the suitability of the projected concentrate as sinter feed and China as the target market. It also recommended a series of sintering tests be carried out at the Beijing University with results made available to all prospective partners and consumers.

On April 13, 2012 (subsequent to the effective date of the Technical Report) Alderon announced the signing a definitive subscription agreement with Hebei Iron and Steel Group Co. Ltd. (“Hebei”) for a strategic partnership. Upon closing of the private placement, Hebei will acquire 25,828,305 common shares for gross proceeds to the Alderon of \$88,332,804, representing 19.9% of the issued and outstanding shares of Alderon, after giving effect to such issuance and the exercise of by Liberty Metals & Mining Holdings

LLC (“Liberty”) of its pre-emptive right, and Liberty will acquire approximately 3,805,576 common shares at the subscription price for additional gross proceeds to Alderon of \$13,015,070.

On closing of the private placement, Hebei and Alderon also will enter into an arrangement pursuant to which Hebei will invest an additional \$105,667,196 in exchange for a 25% interest in the Kami Project. Hebei agreed to use its best efforts to assist in obtaining project debt financing for the Kami Project from financial institutions. Hebei also has agreed to purchase, upon the commencement of commercial production, 60% of the actual annual production from the Kami Project up to a maximum of 4.8 million tonnes of the first 8.0 million tonnes of iron ore concentrate produced annually at the Kami Project at market prices.

These agreements are subject to approvals from the government of the People’s Republic of China.

### *Environment*

The overall Project is subject to the Environmental Assessment (“EA”) Process of the Province of Newfoundland and Labrador and the Federal Government. The EA process was initiated in October 2011 and a Joint Federal/Provincial EA is currently underway. The requirements for each of these processes are well understood. The environmental studies required have been defined and planned and executed. Permit requirements are also well defined and planned. A schedule for Environmental Permitting for the Project has been developed.

A tailings management strategy has been defined and a preliminary design for the TMF has been developed. The TMF will be constructed and operated in phases thus allowing for progressive rehabilitation. An appropriate area has been determined and located on the site plan. Dewatered tailings will be pumped from the concentrator to the TMF. Water will be collected within a polishing pond and returned to the processing plant thus minimizing fresh water consumption. It is anticipated that the tailings supernatant will be inert, with negligible metal and chemical levels.

To permanently store the anticipated volume of waste rock to be produced by the development of the proposed Mills and Rose Central open pits, conventional surface waste rock dumps are proposed, adjacent to the open pits. Three side-hill fill type dumps are proposed in the areas selected, to take advantage of the existing natural topography and provide sufficient capacity as close as practical to the pits. The areas identified do not contain any significant mineralization and make use of the natural topography. Preliminary design parameters have been developed to define the waste rock dump profile that is deemed to be “designed for closure”.

The Mills Dump capacity exceeds the currently anticipated required storage volume and may be used for additional waste rock storage from either pit. Any of the dumps may be expanded if required; however, constraints for the plan dimensions in these areas are particularly stringent at this time until the site development details are advanced, and condemnation drilling and environmental field work is complete, to delineate potential zones of mineralization and protected habitat areas.

### *Capital Costs*

As part of the PEA, Capital Costs for the Property, based only on the development of the Rose Central Deposit, were estimated and classified as initial capital costs and sustaining capital. The total initial capital cost for the Project, including mining pre-stripping costs, indirect costs and contingency was estimated to be approximately \$989 Million. This Capital Cost Estimate is expressed in constant August 2011 Canadian Dollars, with an exchange rate at par with the US dollar. Initial capital cost excludes the

following items which have been treated separately, as indicated:

- Leased equipment (mining equipment and railcars) estimated value at \$259.2M which is included in operating costs;
- The portion of rehabilitation and closure costs required to be disbursed prior to production startup estimated by Stantec to be in the order of \$25.5M;
- Sustaining capital (capital expenses incurred in Year 1 of production to the end-of-minelife) estimated at \$198.5M.

Initial capital costs are summarized in Table 5.

**TABLE 5: TOTAL ESTIMATED INITIAL CAPITAL COSTS (\$M)**

<b>Total Estimated Initial CAPEX Costs</b>	
Mining	\$141.40
Concentrator and Site Infrastructure	\$579.70
Environmental and Tailings Management	\$19.80
Rail Transportation	\$44.70
Port Facilities	\$203.30
<b>TOTAL</b>	<b>\$988.90</b>

### *Operating Costs*

As part of the PEA, Operating Costs, based only on the development of the Rose Central Deposit, have been estimated and are summarized in Table 6 in \$ per tonne of concentrate produced. Operating costs were estimated based on the average over the life of the mine. Operating costs include the estimated cost of leased equipment over the life of the lease.

**TABLE 6: TOTAL ESTIMATED AVERAGE OPERATING COST (\$/T CONCENTRATE)**

<b>Total Estimated Average Operating Costs</b>	
Mining	\$20.36
Concentrator	\$6.28
Site Infrastructure (incl. Garage)	\$0.55
General Administration	\$1.77
Environmental and Tailings Management	\$0.32
Rail Transportation	\$13.51
Port Facilities	\$2.08
<b>TOTAL</b>	<b>\$44.87</b>

The total estimated operating costs are in the order of \$44.87/t of concentrate produced. Royalties are not included in the operating cost estimate presented but are treated separately in the Project economic analysis.

*Economic Analysis*

The economic evaluation of the Rose Central deposit of the Kami Property was performed using the discounted cash flow model. The capital and operating cost estimates based on the mine plan developed in the PEA to produce 8.0 Mt of concentrate annually were used as input to the model. The following parameters and assumptions were made for the Base Case financial analysis:

- A construction period of two years;
- A production life of 15.3 years for the Rose Central Deposit only from Year 1 to Year 16;
- A constant commodity price of \$115/t FOB of concentrate grading at 65.5% Fe;
- All of the concentrate is sold in the same year of production;
- No escalation or inflation factor has been taken into account (constant 2011 \$);
- Financial analysis excludes working capital;
- The financial analysis is carried out on a pre-tax basis;
- US Dollar at par with Canadian Dollar.

The NPV calculation was done at discount rates of 0%, 5%, 8% and 10%. The Base Case NPV was assumed at a discount rate of 8%. Table 7 presents the results of the financial analysis. The economic evaluation is based only on the development of the Rose Central deposit which has an indicated mineral resource of 376 million tonnes at 29.8% iron and an inferred mineral resource of 46 million tonnes at 29.8% iron. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

**TABLE 7: FINANCIAL ANALYSIS RESULTS**

		<b>Base Case</b>	
<b>IRR</b>		<b>40.20%</b>	
<b>Discount</b>	<b>NPV</b>	<b>Payback</b>	
0%	\$7 019 M	2.3 yrs	
5%	\$4 135 M	2.5 yrs	
8%	\$3 066 M	2.7 yrs	
10%	\$2 526 M	2.8 yrs	

As can be seen, the Property is forecasted to provide an IRR of 40.2% (before tax). At the Base Case discount rate of 8%, NPV is \$3,066M. Payback occurs after 2.7 years. A sensitivity analysis was also performed to show the Project sensitivity to a +/- \$100M variation in capital cost, a +/- \$50M per year variation in operating costs, a +/- 25% variation in commodity price and the effect of a reduced concentrate production rate considering a lower than expected Fe recovery rate. Commodity selling price showed the biggest impact on project economics.



As part of the PEA, a preliminary project execution schedule was developed. Based on BBA's understanding of the Environmental Assessment and Permitting process, construction can begin once the required permits are obtained. Construction is expected to begin in early November 2013. Assuming a typical construction schedule lasting about 21 months, the end of construction is estimated to occur in early August 2015. Production startup is expected for end of October 2015.

A Preliminary Economic Assessment is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that the Preliminary Economic Assessment will be realized.

Alderon has not yet completed a pre-feasibility study or feasibility study to demonstrate the economic viability of the Kami Property. Furthermore, no Mineral Reserves have been established on the Kami Property. Any statements regarding planned production rates, projected cash flows, payback period, IRR, NPV, construction timelines and production start-up at the end of October 2015 assume that Alderon is or will be able to complete all of the required steps to bring the Kami Property into commercial production including the completion of a feasibility study to demonstrate the economic viability of the Kami Property, the completion of the environmental assessment process, the conclusion of infrastructure agreements for railway transportation, power and access to port facilities and that Alderon obtains the necessary project financing to pay for the capital costs to develop and construct a mine at the Kami Property. There is no certainty that Alderon will be able to complete any or all of these steps and reference should be made to the "Risk Factors" and "Preliminary Notes – Special Note Regarding Forward-Looking Information" sections of this AIF.

### ***Recommendations for Future Exploration and Development***

The following recommendations are made considering the results of the Kami Property Resource Estimates and the PEA.

- Due to the variations in the drilling pattern, separations in the mineralized intersections were anywhere from less than 50 m to more than 250 m apart on adjacent holes. A more regular pattern of drilling should be used going forward, and wherever possible, it should be a priority for the drillhole to pass through the entire mineralized zone. Down dip drilling should also be kept to a minimum. Substantial additional drilling is recommended by WGM (and is currently ongoing) and a more detailed geological interpretation will be required to better understand the extent of weathering in Rose North. It is possible that some of this more altered material will be considered as internal waste for future modeling.
- It is recommended that the current database be supplemented by more results once more drilling is completed and that WGM's calculations of hematite values are used going forward. This improved/updated database will lead to a better understanding of the structure, geology and mineralization in the zones and an upgrade of the categorization of the current Mineral Resources.
- WGM modeled out the larger and more continuous hematite-rich zones/units/beds within the main magnetite body that appeared to have fairly good correlation between holes and through multiple cross sections. The Rose Central Deposit is more complex structurally and at least two hematite-rich units could be separately modeled. There appears to be more intermixed hematite and magnetite in this deposit as well. It appears that different ratios of hematite to magnetite occur in the different deposits (or parts of the deposits), but this distribution is not yet completely mapped out and understood and should be studied in detail during future work. WGM is of the opinion that it is important to keep these hematite-rich zones separate in future modeling and Mineral Resource

estimates, as it may become important for determining processing options and costs of the iron-bearing material in subsequent economic studies. In all the Kami deposits, the hematite modeling is preliminary due to the current lack of drilling information.

- Alteration products and their extent (particularly at depth) such as limonite/goethite and secondary manganese hydroxides is currently not well understood and this leads to some uncertainty regarding the determination of density for the Mineral Resource tonnage estimate. Much more pycnometer pulp SG and bulk density determinations on whole sample intervals needs to be carried out in the next drilling campaign in order to build a reliable relationship between SG and %TFe, particularly for Rose North.
- The current 3-D wireframe continued to a maximum depth of -135 m (approximately 750 m vertically below surface and extended 100 m past the deepest drilling) at Rose Central and to a maximum depth of -40 m (approximately 600 m vertically below surface and extending 300 m past the deepest drilling) at Rose North. The deeper mineralization, i.e., below 200 m vertical depth, has been tested by few drillholes and both zones are open at depth. A targeted exploration program will most likely increase the Mineral Resources at depth; however, an "economic lower level" or maximum depth of viable extraction should be determined in a subsequent Study.
- Based on the current drilling, the gross overall mineralization controls appear to be fairly simple from a structural and mineralogical perspective, however, future Mineral Resource estimates after more drilling information is available may make use of "domaining" to define structural or mineralogical zones to better control grade distribution.
- The metallurgical testwork proposed should be carried out early in the feasibility study.
- Site conditions including geotechnical, hydrogeological and other studies should be conducted, as recommended by Stantec.
- Alderon should proceed, as soon as possible, with environmental permitting beginning with project registration.
- Alderon should continue discussions with stakeholders, including First Nations, in order to develop mutually beneficial accords.
- Alderon should undertake a more detailed and focused market study based on the results indicated in the market study performed during this PEA Study.
- Alderon should begin discussions with rail carriers and the Port of Sept-Îles to secure services and land in the vicinity of the port installations.

BBA recommends that Alderon proceed with the undertaking of a feasibility study and should include Rose North. Furthermore, considering the overall Resource estimate, Alderon should consider the possibility of incorporating a second production line, hence a total capacity of producing 16 Mt/y of concentrate.

The costs for this next study phase have been estimated and are outlined in Table 8. As of the effective date of the Technical Report, Alderon had already authorized and/or initiated some of the work outlined in the recommendations made.

**TABLE 8: NEXT STUDY PHASE COST ESTIMATE**

Study Phase	Cost Estimate
Exploration Drilling Program (to June 2012)	\$ 17.3 M
Feasibility Study (Kami Site)	\$ 1.9 M
Metallurgical Testwork	\$1.1 M
Port and Rail	\$ 1.1 M
Geotech and Pit Slope	\$ 4.6 M
Other Site Studies	\$ 1.0 M
Environmental Studies	\$ 3.2 M
<b>Total</b>	<b>\$ 30.2 M</b>

Alderon recently announced the completion of its 2012 winter drilling program on the Kami Property (see Alderon Press Release dated May 3, 2012). The four month drill program which began in mid-January and ended 30 April 2012 focused predominately on Rose North with a total of 32 holes, totalling 12,300 metres. The program concentrated on infill drilling within the currently defined mineral resource estimate in the Rose North area. The goal of this program is to upgrade the current mineral resource into the Measured and Indicated categories in preparation for the Feasibility Study expected in Q3 2012.

## **SCHEDULE "B"**

### **Audit Committee Charter**

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#### **INTRODUCTION**

1. The purpose of the Audit Committee (the "Committee") is to assist the Board of Directors of the Corporation (the "Board") in fulfilling its oversight responsibilities by reviewing the financial information which will be provided to shareholders of the Corporation and others, the systems of corporate financial controls which management and the Board have established and the audit process.
2. The Committee will oversee the Corporation's financial reporting process on behalf of the Board and report the results to the Board.
3. While the Committee has the responsibilities and powers set forth in this mandate, it is not the duty of the Committee to plan or conduct audits or to determine the Corporation's financial statements are complete and accurate and are in accordance with generally accepted accounting principles. Management is responsible for preparing the Corporation's financial statements and the independent auditors are ultimately accountable to the Board and the Committee, as representatives of the Corporation's shareholders.

#### **DEFINITIONS**

4. "Management" refers to the officers of the Corporation, and the other members of the senior management team of the Corporation as may be determined from time-to-time by the Chief Executive Officer and communicated to the Board.
5. "Officers" refer to those employees who are appointed as officers the by the Corporation.

#### **DUTIES AND RESPONSIBILITIES**

6. Financial Reporting
  - a. Review, with management and the independent auditors the financial statements and management discussion and analysis prior to the filing of the Corporation's Annual and Interim Reports.
    - i. Include in this review discussions regarding their judgment on the quality, not just the acceptability, of significant accounting principles, the

reasonableness of significant judgments, and the clarity of the disclosures in the financial statements;

ii. Discuss the results of the review and any other matters required to be communicated to the Committee by the independent auditors under generally accepted auditing standards if a review engagement of the interim financial statements is requested by the Committee; and

1. Ensure the Corporation's compliance with legal and regulatory requirements relating to financial disclosure.

b. Review any new appointments to senior positions of the Corporation with financial reporting responsibilities;

c. Review reports from senior officers of the Corporation outlining any significant changes in financial risks facing the Corporation;

d. Review the management letter of the external auditors and the Corporation's responses to suggestions made; and

e. Review all financial press releases, earnings guidance and the annual information form.

## 7. External Audit

a. Review the audit plan with the external auditors and discuss the overall scope and plans for the audit, including the adequacy of staffing and compensation;

b. Meet separately with the independent auditors, with and without management present, to discuss the results of their examinations and provide sufficient opportunity for the independent auditors to meet privately with the members of the Committee; and

c. Annually, review and recommend to the Board the selection of the Corporation's independent auditors, subject to shareholders' approval, and approve the annual fee for the external audit services.

## 8. Internal Audit

a. Annually review the summary report of the internal audit function for the past year; and

b. Annually review planned activities and resources of the internal audit function for the coming year.

## 9. Miscellaneous

Perform any other matters referred to the Committee or delegated to it by the Board.

10. Director Responsibilities and Performance

a. Committee Duties

Act honestly and in good faith with a view to the best interests of the Corporation and to exercise the care, diligence and skill that a reasonable prudent person would exercise in comparable circumstances.

b. Committee Values

- i. Assist the Corporation to operate in compliance with all corporate policies and codes, and all laws and regulations governing the Corporation; and
- ii. Maintain strong financial reporting and control processes.

c. External Auditors

- i. Ensure that the external auditors are accountable to the Board, as representatives of the shareholders, through the Committee;
- ii. Recommend the appointment of auditors to the Corporation's shareholders and for the compensation and oversight of the work of the external auditors, including resolution of disagreements between management and the external auditors regarding financial reporting; and
- iii. Ensure that the external auditors report all material issues or potentially material issues to the Committee.

d. Reliance on Experts

- i. Place appropriate reliance in good faith on reports that the financial statements of the Corporation represented to each member of the Committee by an officer of the Corporation or in a written report of the external auditors present fairly the financial position of the Corporation in accordance with Canadian general accepted accounting principles; and on any report of a lawyer, accountant, engineer, appraiser or other person whose profession lends credibility to a statement made by any such person.

**IV. OPERATION OF THE COMMITTEE**

11. Reporting

The Committee shall report to the Board.

12. Composition of Committee

The Committee shall consist of not less than three directors, all shall qualify as “independent”, as defined in multilateral instrument 52-110 Audit Committees.

13. Appointment of Committee Members

Members of the Committee shall be appointed at a meeting of the Board, typically held immediately after the annual shareholders’ meeting, provided that any member may be removed or replaced at any time by the Board and shall in any event cease to be a member of the Committee upon ceasing to be a member of the Board.

14. Vacancies

Where a vacancy occurs at any time in the membership of the Committee, it may be filled by the Board.

15. Chair of the Committee

The Board shall designate the Chair of the Committee. The Chair shall have responsibility for overseeing that the Committee fulfills its mandate and its duties effectively. In the absence of the Chair of the Committee, the members will appoint an acting Chair.

16. Secretary

Unless the Committee otherwise specifies, the secretary of the Corporation will act as secretary of all meetings of the Committee.

17. Committee Meetings

The Committee will meet at least four times annually (or more frequently as circumstances dictate).

Committee meetings may be held in person, by video-conference, by means of telephone or by any combination any of the foregoing.

18. Notice of Meeting

Notice of the time and place of every meeting may be given orally, in writing, by facsimile or by e-mail to each member of the Committee at least 48 hours prior to the time fixed for such meeting.

A member may in any manner waive notice of the meeting. Attendance of a member at the meeting shall constitute waiver of notice of the meeting except where a member attends a meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting was not lawfully called.

19. Quorum

A quorum will be a majority of the members of the Committee present in person, by video-conference, by telephone or by a combination thereof.

20. Attendance at Meetings

The Chief Financial Officer is expected to be available to attend meetings, but a portion of every meeting can be reserved for in camera discussion with the Chief Financial Officer, or any other member of management, being present.

The Committee may by specific invitation have other resource persons in attendance. The Committee shall have the right to determine who shall and who shall not be present at any time during a meeting of the Committee.

21. Meeting Agenda

Committee meeting agendas shall be set by the Chair of the Committee in consultation with Committee members, management if appropriate, and the external auditors if appropriate.

22. Minutes

The Committee shall keep regular minutes of proceedings and shall cause them to be recorded in books kept for that purpose.

23. Outside Advisors

The Committee is empowered to engage and compensate any outside advisors as it deems advisable to permit it to carry out its duties, at the expense of the Corporation.

24. Reporting to the Board

The Committee, through its Chair, will report regularly to the Board, and in any event no less frequently than on a quarterly basis.

**V. OPERATION OF THE COMMITTEE**

The Governance Committee will review these terms of reference at least every two years or, where circumstance warrants, at such shorter interval as is necessary, to determine if further



additions, deletions or amendments are required, and make a recommendation to the Board as to their approval.

## VI. **HISTORY**

These Terms of Reference were:

- a. Initially adopted by the Board on September 12, 2007
- b. Reviewed and approved by the Board on June 29, 2011