THIS CIRCULAR IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION

If you are in any doubt as to any aspect of this circular or as to the action to be taken, you should consult your stockbroker or other licensed securities dealer, bank manager, solicitor, professional accountant or other professional adviser.

If you have sold or transferred all your shares in China Molybdenum Co., Ltd.*, you should at once hand this circular to the purchaser or the transferee or to the bank, stockbroker or other agent through whom the sale or transfer was effected for transmission to the purchaser or the transferee.

洛陽欒川鉬業集團股份有限公司

China Molybdenum Co., Ltd. *

(a joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 03993)

MAJOR TRANSACTION
ACQUISITION OF ANGLO AMERICAN PLC'S NIOBIUM AND PHOSPHATES BUSINESSES

Financial advisers to the Company in respect of the Proposed Transaction

Deutsche Bank

BARCLAYS

A letter from the Board is set out on pages 1 to 29 of this circular.

Notice convening the EGM to be held at 1:00 p.m. on Friday, 23 September 2016 together with the relevant form of proxy and reply slip were despatched to H Shareholders on 8 August 2016. Such forms were also published on the websites of the Hong Kong Stock Exchange (http://www.hkexnews.hk) and the Company (http://www.chinamoly.com). For ease of reference, the notice convening the EGM is set out on pages IX-1 to IX-3 of this circular.

Whether or not you are able to attend the EGM in person, you are requested to complete, sign and return the reply slip and proxy form applicable to the EGM in accordance with the instructions printed thereon. For H Shareholders, the proxy form applicable to the EGM should be returned to the Company's H Share registrar in Hong Kong, Computershare Hong Kong Investor Services Limited, at 17M Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong, as soon as possible but in any event not less than 24 hours before the time appointed for holding the EGM or any adjournment thereof. Completion and return of the proxy form applicable to the EGM will not preclude you from attending and voting in person at the EGM or any adjournment thereof should you so wish.

8 September 2016

* *For identification purposes only*

CONTENTS

FORWARD-LOOKING STATEMENTS

Certain information contained in this circular constitutes forward-looking statements. Investors and Shareholders are cautioned that forward-looking statements are inherently uncertain and involve risks and uncertainties that could cause actual results, performance or achievements of the Enlarged Group or the Niobium and Phosphates Businesses to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These forward-looking statements include, without limitation, statements relating to the business strategies, ability to integrate the Niobium and Phosphates Businesses, future business development, financial conditions and results of operations. No assurance can be given that such forward-looking statements will prove to have been correct. In addition, specific reference is made to the section headed "Risk Factors" in this circular. Whilst the Company may elect to update the forward-looking information at any time, the Company does not undertake to update it at any particular time or in response to any particular event. Investors and Shareholders are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this circular.

In this circular, the following expressions have the following meanings unless the context requires otherwise:

"A Share(s)"	domestic share(s) with a nominal value of RMB0.20 each issued by the Company which are listed on the SSE and traded in Renminbi (stock code: 603993)
"A Shareholder(s)"	holder(s) of A Share(s)
"AA Luxembourg"	Anglo American Luxembourg SÁRL, a company incorporated in Luxembourg
"AAFB"	Anglo American Fosfatos Brasil Limitada, a company incorporated in Brazil
"AAML"	Anglo American Marketing Limited, a company incorporated in England and Wales
"AANB"	Anglo American Nióbio Brasil Limitada, a company incorporated in Brazil
"AcquireCo"	CMOC Brasil Serviços Ltda., an indirect wholly owned subsidiary of the Purchaser to be incorporated in Brazil
"Ambras"	Ambras Holdings SÁRL, a company incorporated in Luxembourg
"Anglo"	Anglo American plc, a company incorporated in England and Wales and has a primary listing on the London Stock Exchange, and secondary listings on the Johannesburg Stock Exchange, the Swiss Stock Exchange, the Botswana Stock Exchange and the Namibian Stock Exchange
"Anglo Group"	Anglo and its subsidiaries
"Articles of Association"	the articles of association of the Company, as amended, modified or otherwise supplemented from time to time
"Board"	the board of Directors
"Capital Loans"	Capital Luxembourg Loans and the Capital PLC Loans

"Capital Luxembourg"	Anglo American Capital Luxembourg SÁRL, a company incorporated in Luxembourg
"Capital Luxembourg Loans"	any loan made to AAFB pursuant to a revolving cash advance facility agreement dated 24 May 2012 between AAFB and Capital Luxembourg
"Capital PLC"	Anglo American Capital plc, a company incorporated in England and Wales
"Capital PLC Loans"	any loan made to AANB pursuant to a revolving cash advance facility agreement dated 2 January 2012 and a revolving cash advance facility agreement dated 2 January 2014 between AANB and Capital Luxembourg, each of which has been assigned to Capital PLC
"CFC"	鴻商產業控股集團有限公司 (Cathay Fortune Corporation*), a controlling shareholder of the Company
"Closing Statement"	the statement to be prepared by Ambras and as agreed by the Purchaser pursuant to the Sale and Purchase Agreement, the draft of which must be delivered to the Purchaser no later than 45 business days following Completion
"CMOC UK"	CMOC Sales & Marketing Limited, a company incorporated in the United Kingdom with limited liability and an indirect wholly owned subsidiary of the Company
"CMOC USA"	CMOC Mining USA Ltd., a company incorporated in the United States of America with limited liability and an indirect wholly owned subsidiary of the Company
"Company"	洛陽欒川鉬業集團股份有限公司(China Molybdenum Co., Ltd.*), a joint stock company incorporated in the PRC with limited liability, the A Shares and H Shares of which are listed on the SSE and the Hong Kong Stock Exchange, respectively
"Company Law"	the Company Law of the PRC

"Competent Evaluator"	has the meaning ascribed to it under Chapter 18 of the Listing Rules
"Competent Person"	has the meaning ascribed to it under Chapter 18 of the Listing Rules
"Competent Person's Report"	has the meaning ascribed to it under Chapter 18 of the Listing Rules, the competent person's report dated 8 September 2016 prepared by RPM
"Completion"	the completion of the Sale and Purchase Agreement
"controlling shareholder"	has the meaning ascribed to it under the Listing Rules
"CSRC"	the China Securities Regulatory Commission of the PRC
"Director(s)"	the director(s) of the Company
"DNPM"	National Department of Mineral Production of Brazil
"EGM"	the extraordinary general meeting of the Company (and any adjournment thereof) to be held at 1:00 p.m. on Friday, 23 September 2016 at the International Conference Room of Mudu-Lee Royal International Hotel at No. 239, Kaiyuan Street, Luolong District, Luoyang City, Henan Province, the PRC
"Encumbrance"	any claim, charge, mortgage, lien, option, equitable right, power of sale, pledge, hypothecation, usufruct, retention of title, right of pre-emption, right of first refusal or other third party right or security interest of any kind or an agreement, arrangement or obligation to create any of the foregoing
"Enlarged Group"	the Group immediately after the Completion
"Estimated Closing Cash Balance"	the estimated closing AAFB cash balance plus the estimated closing AANB cash balance, as derived from the Closing Statement

"Estimated Closing Indebtedness"	the estimated closing AAFB indebtedness plus the estimated closing AANB indebtedness, as derived from the Closing Statement
"Estimated Closing Working Capital"	the estimated closing AAFB working capital plus the estimated closing AANB working capital, as derived from the Closing Statement
"Group"	the Company and its subsidiaries
"H Share(s)"	overseas listed foreign share(s) with a nominal value of RMB0.20 each in the share capital of the Company which are listed on the main board of the Hong Kong Stock Exchange and are traded in Hong Kong dollars
"H Shareholder(s)"	holder(s) of H Share(s)
"HKD"	Hong Kong dollars, the lawful currency of Hong Kong
"Hong Kong"	the Hong Kong Special Administrative Region of the PRC
"Hong Kong Stock Exchange"	The Stock Exchange of Hong Kong Limited
"Latest Practicable Date"	8 September 2016, being the latest practicable date prior to the printing of this circular for the purpose of ascertaining certain information referred to in this circular
"Listing Rules"	the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange
"LMG"	洛陽礦業集團有限公司 (Luoyang Mining Group Co., Ltd.*), a controlling shareholder of the Company
"Long Stop Date"	30 November 2016 or such later date as Ambras may notify the Purchaser as being the Long Stop Date, provided that such new Long Stop Date as notified by Ambras may be no later than 31 May 2017

"LuxCo"	CMOC Luxembourg S.à.r.l., a wholly owned subsidiary of the Purchaser incorporated in Luxembourg
"MOFCOM"	the Ministry of Commerce of the PRC
"NDRC"	the National Development and Reform Commission of the PRC
"Niobium and Phosphates Businesses"	all the businesses of AAFB and AANB, including in the case of AANB, the Niobium Sales Function
"Niobium Business"	all the business of AANB, together with the Niobium Sales Function
"Niobium Sales Function"	the niobium marketing and sales function of AAML being acquired in the Proposed Transaction, comprising (i) the aggregate amount of ferroniobium owned by AAML as at Completion; (ii) all contracts, undertakings, arrangements and agreements entered into by AAML to sell niobium; and (iii) certain employees of AAML
"NPM" or "Northparkes"	the Northparkes copper and gold mine in Australia, operated by CMOC Mining Pty Limited, a wholly-owned subsidiary of the Company
"Phosphates Business"	all the business of AAFB
"PRC" or "China"	the People's Republic of China, which for the purpose of this circular only, excludes Hong Kong, Macau Special Administrative Region of the PRC and Taiwan
"Proposed Transaction"	the proposed acquisition of the whole issued share capitals of AAFB and AANB, the Niobium Sales Function, and the assumption of the rights in respect of the Capital Loans
"Purchaser"	CMOC Limited, a company incorporated in Hong Kong with limited liability and a wholly owned subsidiary of the Company
"RCG"	Roskill Consulting Group Ltd.
"Report (draft)"	material asset acquisition report (acquisition of overseas niobium and phosphates businesses) (draft)

"RMB"	Renminbi, the lawful currency of the PRC
"Roskill report"	Niobium Industry Outlook prepared by RCG
"RPM"	RungePincockMinarco
"Sale and Purchase Agreement"	the sale and purchase agreement effective date 27 April 2016 as amended on 4 August 2016, entered into between the Vendors, the Vendors' Guarantor, the Purchaser, the Company in relation to the Proposed Transaction
"SFO"	the Securities and Futures Ordinance (Cap 571 of the Laws of Hong Kong), as amended, supplemented or otherwise modified from time to time
"Share(s)"	A Share(s) and H Share(s)
"Shareholder(s)"	holder(s) of the Shares
"SSE"	the Shanghai Stock Exchange
"USD"	United States dollars, the lawful currency of the United States of America
"Valuation Report"	has the meaning ascribed to it under Chapter 18 of the Listing Rules, the valuation report dated 8 September 2016 prepared by the Valuer
"Valuer"	Censere (Far East) Limited, an independent valuer
"Vendors"	Ambras, AA Luxembourg, AAML, Capital PLC and Capital Luxembourg
"Vendors' Guarantor"	Anglo American Services (UK) Limited, a company incorporated in England and Wales
"%"	per cent.

The translation of USD into HKD throughout this circular is based on the exchange rate of USD1.00 to HKD7.75 and is provided for information purposes only.

This glossary contains explanations of certain technical terms used in this circular in connection with the Enlarged Group. As such, these terms and their meanings may not correspond to standard industry meaning or usage of these terms.

"C1 operating cash cost"	has the definition as prescribed by Brook Hunt, being the cost of mining, milling and concentrating, onsite administration and general expenses, property and production royalties not related to revenues or profits, metal concentrate treatment charges, and freight and marketing costs less the net value of the by-product credits
"concentrate"	a powdery product containing an upgraded mineral content resulting from initial processing of mined ore to remove waste materials. A concentrate is an intermediary product, subject to further processing, such as smelting, to effect recovery of metal
"DAP"	Di-ammonium phosphate
"DCP"	Di-calcium phosphate
"deposit"	a body of mineralization containing a sufficient average grade of metal or metals to warrant further exploration and/or development expenditure. A deposit may not have a realistic expectation of being mined, therefore it may not be classified as a resource or a reserve
"exploration"	activity to prove the location, volume and quality of an ore body
"ferroniobium"	a form of niobium used in the production of steel as an alloying addition. Ferroniobium typically contains 65% Nb, however can exist in higher grade forms
"fresh rock"	primary rock in which the material is not oxidized
"g"	grams
"g/t"	grams per tonne
"grade"	ratio of element or its compound content in material. The greater the content, the higher the grade

"GTSP"	Ganular Triple Super Phosphate
"Indicated Resources"	as defined by the JORC Code, a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, of which the locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed
"Inferred Resources"	as defined by the JORC Code, a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability
"JORC"	the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia
"JORC Code"	the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, December 2012
"km"	kilometer
"kt"	kilo tonnes
"ktpa"	thousand tonnes per annum
"lb"	pound
"LOM"	Life of Mine

"m^3"	cubic meter
"MAP"	Mono-ammonium phosphate
"MAP cfr Brazil"	Mono-ammonium phosphate price including cost and sea freight from the international market to Brazil
"MGA"	Merchant Grade Acid
"Measured Resources"	mineral resource that has been intersected and tested by drill holes or other sampling procedures at locations close enough to confirm continuity and where geoscientific data are reliably known, as defined by the JORC Code
"mine life"	the number of years that a mine is expected to continue operations based on the current mine plan
"Mineral Resource(s)" or "resources"	a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction, as defined in the JORC Code. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge
"M"	million
"MO"	molybdenum
"Mt"	million tonnes
"Mtpa"	million tonnes per annum
"MW"	megawatt
"Nb_2O_5" or "Nb_2O_5"	Niobium Oxide, Niobium pentoxide

"niobium" or "Nb"	a chemical element, chemical symbol Nb, is mainly used to increase the strength of steel by adding a small part of the iron niobium alloy, is an important element in stainless steel and other high grade steel
"open pit"	a mining pit open to surface
"Ore Reserve(s)" or "reserve(s)"	the economically mineable part of a measured and/or indicated mineral resource, as defined by the JORC Code. It includes diluting materials and allowances for losses occurring when the material is mined. Appropriate assessments and studies have been carried out, taking consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors into account. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore reserves are subdivided into probable and proved
"oxide"	oxidized material within the oxidized zone formed by the weather and supergene processes of the metal deposit
"P75"	the 75th percentile (P75) is a production level which was achieved or exceeded only during 25% of the days in the selected historical data sample. It denotes a production level that might be achieved on average, in the medium term if process stability improvements are achieved (based on industry experience), with no significant Capex needed
"recovery rate"	the percentage of metal produced compared to the amount of metal contained in the feed ore in the context of a processing plant
"refining"	the final stage of the metallurgical process of refining crude metal products to a pure or very pure end-product
"SSP"	Single super phosphate. Crushed phosphate rock reacts with sulphuric acid and is subsequently granulated for end use

"tailings"	the waste materials (residue) produced by the processing plant after extraction of valuable minerals
"tonne"	metric tonne
"TSP"	Triple super phosphate. A "high analysis" fertilizer with a higher phosphorus content than SSP. Phosphoric acid reacts with phosphate rock resulting in TSP
"WO_3"	tungsten trioxide

洛陽欒川鉬業集團股份有限公司
China Molybdenum Co., Ltd. *

(a joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 03993)

Registered office:
North of Yihe
Huamei Shan Road
Chengdong New District
Luanchuan County
Luoyang City
Henan Province
The People's Republic of China

Principal place of business in Hong Kong:
Level 54
Hopewell Centre
183 Queen's Road East
Hong Kong

8 September 2016

To the Shareholders

Dear Sir or Madam,

MAJOR TRANSACTION
ACQUISITION OF ANGLO AMERICAN PLC'S NIOBIUM AND PHOSPHATES BUSINESSES

1. INTRODUCTION

References are made to the announcements of the Company dated 28 April 2016, 2 May 2016, 10 May 2016, 3 May 2016, 15 May 2016, 25 May 2016, 21 June 2016, 15 July 2016, 29 July 2016, 5 August 2016, 8 August 2016 17 August 2016 and 31 August 2016 in relation to, among others, the Proposed Transaction and the notice of the EGM despatched to Shareholders on 8 August 2016.

* *For identification purposes only*

The purpose of this circular is to provide you with, among others, (i) further information on the Proposed Transaction, including (a) the financial information of the Niobium and Phosphates Businesses; (b) the pro forma financial information on the Enlarged Group; (c) the Competent Person's Report; and (d) the Valuation Report, to enable you to make an informed decision on whether to vote for or against the resolutions proposed for voting at the EGM.

On 8 August 2016, the Board approved, among others, the resolution in relation to the "Material Asset Acquisition Report (Acquisition of Overseas Niobium and Phosphates Businesses) (Draft) of the China Molybdenum Co., Ltd.*" and its Summary". The Report (draft) is prepared in accordance with the requirements of the CSRC. The scope of the Report (draft) is mainly on the terms of the material asset reorganization; the basic information of the parties to the Proposed Transaction; and the major terms of the Proposed Transaction. All the material information in relation to the Report (draft) has been disclosed in this circular (including the appendices); and investors can also refer to the Report (draft) (in Chinese only) on the websites of the SSE, the Stock Exchange and the Company published on 8 August 2016.

2. PROPOSED TRANSACTION

The Purchaser, a wholly-owned subsidiary of the Company, and the Company entered into the Sale and Purchase Agreement with, among others, the Vendors, pursuant to which: (i) Ambras and AA Luxembourg have agreed to sell and the Purchaser has agreed to purchase the whole issued share capitals of AAFB and AANB; (ii) AAML has agreed to sell and the Purchaser has agreed to purchase the Niobium Sales Function; (iii) Capital PLC agrees to assign the benefit of the Capital PLC Loans to the Purchaser and the Purchaser agrees to assume the rights in respect of the Capital PLC Loans (being the aggregate amount of loan made to AANB pursuant to a revolving cash advance facility agreement dated 2 January 2012 and a revolving cash advance facility agreement dated 2 January 2014 between AANB and Capital Luxembourg (one of the Vendors) as at the close of business on the date of Completion. The Capital PLC Loans were made by Capital Luxembourg to AANB to provide funding for the construction of the Boa Vista Fresh Rock (BVFR) plant (please refer to the section headed "Information on the Niobium and Phosphates Businesses" for details)); (iv) Capital Luxembourg agrees to assign the benefit of the Capital Luxembourg Loans to the Purchaser and the Purchaser agrees to assume the rights in respect of the Capital Luxembourg Loans (being the amount of any loan made to AAFB pursuant to a revolving cash advance facility agreement dated 24 May 2012 between AAFB and Capital Luxembourg (one of the Vendors) as at the close of business on the date of Completion. The Capital Luxembourg Loans were made by Capital Luxembourg to AAFB to provide flexibility to the business operations of AAFB); (v) the Company, as guarantor, has agreed to guarantee the due and punctual performance of the Purchaser with its obligations under, among other documents, the Sale and Purchase Agreement; and (vi) the Vendors' Guarantor, as guarantor, has agreed to guarantee the due and punctual performance of the Vendors with their obligations under, among other documents, the Sale and Purchase Agreement.

Upon completion of the Proposed Transaction: (i) AAFB and AANB will become indirect wholly owned subsidiaries of the Company; (ii) the Niobium Sales Function will be indirectly owned by the Purchaser (or another member of its Group); and (iii) the Purchaser (or another member of its Group) will have all the interests in the Capital Loans. The employees of the Niobium Sales Function will be employed by CMOC UK, and the Niobium Sales Function will be carried out by CMOC UK.

SALE AND PURCHASE AGREEMENT

Effective Date

27 April 2016

Parties

(i) the Vendors;

(ii) the Vendors' Guarantor;

(iii) the Purchaser; and

(iv) the Company.

To the best of the Directors' knowledge, information, and belief after having made all reasonable enquiries, the Vendors and the Vendors' Guarantor and their ultimate beneficial owners are third parties independent of the Company, and are not connected persons of the Company or its connected persons (as defined in the Listing Rules). The Directors also confirm that, to the best of their knowledge, information, and belief after having made all reasonable enquiries, there is no prior transaction with each of the Vendors, the Vendors' Guarantor or their ultimate beneficial owners which is required to be aggregated with the Transaction pursuant to Rule 14.22 of the Listing Rules.

Assets and businesses to be acquired

The Purchaser has formed wholly owned subsidiaries in Luxembourg, LuxCo, and in the United Kingdom, CMOC UK and the Purchaser is also in the process of forming a wholly owned subsidiary in Brazil, AcquireCo. LuxCo, CMOC UK and AcquireCo are being formed for the purposes of assuming certain obligations of the Purchaser under the Sale and Purchase Agreement, including:

(i) AcquireCo will acquire the whole issued share capitals of AAFB and AANB from Ambras and AA Luxembourg, free from Encumbrances and together with all rights and advantages attaching to them as at Completion (including, without limitation, the right to receive all dividends and distributions declared, made, or paid on or after Completion);

(ii) CMOC UK will acquire the Niobium Sales Function from AAML; and

(iii) LuxCo will assume the rights of the Capital PLC Loans and the rights of the Capital Luxembourg Loans.

Further information on the Niobium and Phosphates Businesses are set out below in the section headed "Information on the Niobium and Phosphates Businesses".

Consideration

The aggregate consideration for the Proposed Transaction (the "**Aggregate Consideration**") is USD1.5 billion (equivalent to approximately HKD11.625 billion) and will be paid to the Vendors at Completion, subject to adjustments set out below under the heading "Adjustments to Aggregate Consideration".

The Purchaser will satisfy the Aggregate Consideration through a combination of the Group's existing cash reserves and undrawn credit facilities. The Aggregate Consideration will not be funded by proceeds to be raised from the proposed non-public issuance of A Shares as disclosed in the announcements published by the Company dated 20 May 2016 and 8 August 2016. The Proposed Transaction and the proposed non-public issuance of A Shares are not inter-conditional. Proceeds raised from the non-public issuance of A Shares would be used to replenish the funds applied by the Company to satisfy the Aggregate Consideration. As at Latest Practicable Date, the Company has no other fund raising plan other than the proposed non-public issuance of A Shares.

The Aggregate Consideration was determined on an arm's length basis following due diligence and financial analysis by the Company and its professional advisors on information provided by the Vendors and negotiations with the management and professional advisors of the Vendors as part of a competitive bidding process, and by reference to, among others, the resources and reserves, mine plan and operations for the Niobium and Phosphates Businesses, stable market dynamics, competitive cost structure, synergies between the Niobium and Phosphates Businesses, and the Company's assessment of the prospects of the assets and strategic benefits from a more diversified cash flow and earnings base.

Further, the Valuation Report has concluded that the estimated market value of the Niobium and Phosphates Businesses is approximately USD1.4 billion to USD1.8 billion (equivalent to approximately HKD10.85 billion to HKD13.95 billion) as at 30 June 2016. The Aggregate Consideration (assuming no adjustment) falls within the range of the estimated market value of the Niobium and Phosphates Businesses as assessed by the Valuer. Given that the Valuation Report was prepared in compliance with the Listing Rules following the entering into the Sale and Purchase Agreement, no reference was made to the Valuation Report in determining the Aggregate Consideration.

In addition to financial analysis, the Board took into account the following factors when determining the appropriate valuation for the Proposed Transaction:

1. the Niobium Business is a scarce, high-quality, long life and low cost asset, and following completion of the Proposed Transaction, the Company is expected to become the second largest niobium producer globally;

2. the niobium market has attractive market fundamentals with stable pricing throughout the commodities cycle;

3. the Niobium Business benefits immediately from derisked, significant expansion, with further optimization underway;

4. the Niobium Business and the Group could leverage existing customer base and in-house marketing expertise to enhance customer reach, strengthen direct client relationships, and promote cross selling potential;

5. the Phosphates Business further diversifies the Company's business mix;

6. the Phosphates Business is structurally advantaged by its location;

7. the Phosphates Business has strong fundamentals that drive superior financial performance; and

8. the Phosphates Business offers near term growth and long term growth optionality.

Adjustments to Aggregate Consideration

At Completion, the Aggregate Consideration shall be adjusted as below:

(i) USD1.5 billion; plus

(ii) the Estimated Closing Cash Balance; minus

(iii) the Estimated Closing Indebtedness; plus/minus

(iv) the Estimated Closing Working Capital Adjustment.

If the Estimated Closing Working Capital exceeds USD114,400,000 (the "**Base Working Capital**"), the absolute difference shall be added to the Aggregate Consideration. If the Estimated Closing Working Capital is less than the Base Working Capital, the absolute difference shall be deducted from the Aggregate Consideration.

The Base Working Capital was determined based on the average of adjusted month-end net working capital balances for the twelve months to 31 December 2015 for AAFB and AANB, which amount being USD77.6 million for AAFB and USD36.8 million for AANB, resulting in a total amount of USD114.4 million.

Upon finalization of the Closing Statement, discrepancies between the Estimated Closing Cash Balance, the Estimated Closing Indebtedness, the Estimated Closing Working Capital Adjustment and the final amounts of each such items as determined in the Closing Statement shall be adjusted in accordance with the Sale and Purchase Agreement. These adjustments shall also be adjusted to take account of amounts notified by Ambras to the Purchaser to be withheld in respect of Brazilian income tax pursuant to the Sale and Purchase Agreement. Any payment of such post-Completion adjustments shall be made on or before 10 business days after the finalization of the Closing Statement and shall include an additional amount calculated by reference to the interest that would have accrued thereon from the date of Completion to the date of payment at a rate per annum of 4 per cent above LIBOR on the basis that such interest would have accrued from day to day. Any payment shall be paid in cleared funds in USD.

Conditions precedent

Completion is conditional upon the fulfilment of a number of conditions, including but not limited to the following:

(a) PRC regulatory approvals: the receipt of all PRC regulatory approvals, including:

(1) a filing acceptance notification from the NDRC;

(2) Outbound Investment Certificate from MOFCOM;

(3) Foreign Exchange Registration Certificate from the State Administration of Foreign Exchange or the relevant handling bank; and

(4) merger control approval from MOFCOM.

(b) Shareholder approval: the Shareholders approve the Transaction.

If the conditions precedent have not been satisfied on or before the Long Stop Date, the Sale and Purchase Agreement shall lapse and neither the Vendors nor the Purchaser shall have any claim against the other under it, save for any breach of the obligations as specified in the Sale and Purchase Agreement. As at the Latest Practicable Date, the Company has obtained all the PRC regulatory approvals, i.e., conditions precedent (a)(1),(2),(3) and (4) have been satisfied.

Guarantee

The Company unconditionally and irrevocably guarantees to the Vendors the due and punctual compliance of the Purchaser of all its obligations under, among other documents, the Sale and Purchase Agreement.

The Vendors' Guarantor, as guarantor, unconditionally and irrevocably guarantees to the Purchaser the due and punctual compliance of the Vendors of all their obligations under, among other documents, the Sale and Purchase Agreement.

Completion

Completion shall take place on 30 September 2016 or, if later and provided that if the conditions precedent have not been satisfied or dismissed prior to such date, the Completion shall take place on the last business day of the month in which the notification of the satisfaction or dismissal of the conditions precedent has occurred or, at Ambras' election, the 5th (fifth) business day following delivery of the estimated allocation schedule and an estimated closing statement, provided that the conditions precedent have been satisfied or dismissed, or at such other date as may be agreed between the Purchaser and Ambras.

On Completion, a tax deed of covenant will be entered into between, amongst others, Ambras and AA Luxembourg, pursuant to which Ambras and AA Luxembourg will agree to indemnify the Purchaser in respect of certain pre-Completion tax liabilities (subject to customary exclusions and limitations). The tax deed will also contain indemnities given by each of Ambras, AA Luxembourg and the Purchaser in respect of secondary tax liabilities, as well as provisions in relation to withholding tax, value-added tax, tax refunds, judicial deposits, recovery from third parties, over-provisions, tax administration and conduct of claims.

UNDERTAKINGS BY CONTROLLING SHAREHOLDERS

CFC and LMG, the controlling shareholders of the Company who in aggregate hold approximately 63.14% equity interest in the Company as at the Latest Practicable Date, have undertaken to vote in favour of the resolutions to approve the Proposed Transaction.

INFORMATION ON THE NIOBIUM AND PHOSPHATES BUSINESSES

The Niobium Business is an important strategic addition to the Company's existing core molybdenum and tungsten business as it is a critical value-added input for specialised alloys and steel production. Furthermore, the Niobium Business represents a unique opportunity to acquire one of three incumbent producers globally, and enter into a market with stable prices relative to other communities.

The Niobium Business produces and exports ferroniobium and has recently completed an investment of approximately USD380 million for significant capacity expansion via a new plant, the Boa Vista Fresh Rock ("**BVFR**") plant. It is one of the three producers of niobium globally, and is expected to become the second-largest producer of niobium in the world upon completing its ongoing capacity ramp-up, which is now substantially complete. Principally, the Niobium Business consists of the Boa Vista Mine, Area Leste, Mina I/II and Morro do Padre deposits. The current mine plan contemplates a long life of mine until at least 2038 according to the Competent Person's Report. Processing operations include the newly constructed BVFR plant, the BV plant and the niobium tailings plant (the "**Tailings Plant**") which recovers niobium from processing phosphate

tailings by the phosphates concentration plant. The Niobium Business also includes the Niobium Sales Function, which is held by AAML and which performs marketing operations from London and Singapore, supporting a global network of customer relationships. The Niobium Business recorded sales volume of niobium (contained in ferroniobium) of 4,600 tonnes and 5,100 tonnes in 2014 and 2015, respectively. The BVFR plant reached commercial production as of March 2016 and with the completion of the ramp-up it will support the niobium business to reach overall total annual capacity of 9,000 tonnes.

Information related to the JORC ore reserves and additional mineral resources of the Niobium Business as at 30 June 2016 are set out below in the section headed "Information on the Niobium and Phosphates Businesses".

The Phosphates Business provides strategically important diversification benefits to the Company's metals portfolio. The phosphate sector has attractive long-term fundamentals and positive outlook due to robust demand and supply dynamics in Brazil. The country represents the third largest phosphate consumer globally for the production of agricultural products including soybeans, coffee and sugarcane. Brazil also has the largest potential arable land in the world.

The Phosphates Business operations consist of the Chapadão mine, Ouvidor beneficiation plant, Catalão and Cubatão chemical plants, and two high-grade undeveloped deposits (Coqueiros and Morro Preto) situated in Goiás state, Brazil. The Phosphates Business is an integrated operation that covers mining of phosphate ore, refining operations to produce P_2O_5 concentrate, and processing intermediate and final products. In 2015, the Chapadão mine/Ouvidor beneficiation plant produced 1.4 million tonnes of concentrate which has the highest P_2O_5 grade in Brazil with a remaining mine life about 37 years.

Information related to the JORC ore reserves and additional mineral resources of the Phosphates Business as at 30 June 2016 are set out below in the section headed "Information on the Niobium and Phosphates Businesses".

MINERAL CONCESSIONS AND SURFACE RIGHTS HELD BY AAFB AND AANB

As disclosed in the Competent Person's Report, all key mining tenements are currently valid for the continued operation of the assets to support the planned production rates. All relevant mining and exploration licenses and authorizations held by AAFB and AANB are listed in the section headed "Information on the Niobium and Phosphates Businesses". As per normal Brazilian regulations, the exploration concessions have renewal deadlines (RFPq), and AAFB and AANB have preemptive rights to renew these licenses as per standard applications with the regulators.

As advised by the Company's Brazil counsel, AAFB and AANB are the registered owners of the mineral rights listed and described in the charts under their respective names in the section headed "Information on the Niobium and Phosphates Businesses". There are no limitations to the rights arising from the mineral rights.

The financial information attributable to the Niobium and Phosphates Businesses, prepared under International Financial Reporting Standards for the two years ended 31 December 2014 and 31 December 2015, are as follows:

	2014		**2015**	
	USD (million)	*HKD (million)*	*USD (million)*	*HKD (million)*
Revenue	667	5,169	542	4,200
EBITDA	137	1,062	117[(a)]	907[(a)]

(a) includes underlying EBIT of USD17 million from BVFR which was capitalized in 2015, as the project had not reached commercial production.

EMPLOYEES

The employees who are employed by AAFB and AANB will move with the relevant entity and their contracts of employment will remain with the relevant entity. After Completion, employees of AAFB and AANB who provide services to the Niobium Business and the Phosphates Business will be employed by AcquireCo, which will function as a service company for both businesses.

The Purchaser has agreed that the employees who are employed by the Niobium Sales Function shall be provided with employment on terms and conditions substantially similar to and, considered on an overall basis, no less favourable than those provided to such employees immediately prior to the Completion. Such employees will be hired by CMOC UK.

INFORMATION ON THE VENDORS AND ANGLO

Ambras and AA Luxembourg are holding companies wholly-owned (through intermediate holding companies) by Anglo. Together, they hold 100% interest in AAFB and 100% interest in AANB (with AAFB holding approximately 0.000000154% in AANB). Anglo indirectly holds 100% interest of the associated niobium sales and marketing function located in London and Singapore of AAML, being the Niobium Sales Function.

Anglo is a globally diversified mining group. Its business includes the planning and development of mines, mining, processing, and marketing of its products to customers globally. Anglo is a leading producer of diamonds (through De Beers), platinum, and copper, and also holds a portfolio of assets in iron ore, nickel and coal.

INFORMATION ON THE PURCHASER AND THE GROUP

The Purchaser

The Purchaser is an investment holding company with limited liability incorporated in Hong Kong. The Purchaser is a wholly owned subsidiary of the Company. LuxCo is a company incorporated in Luxembourg. CMOC UK is incorporated in the United Kingdom. AcquireCo will be, when incorporated, a company incorporated in Brazil. Each of CMOC UK and LuxCo will be wholly owned direct subsidiaries of the Purchaser, and AcquireCo will be an indirect wholly owned subsidiary of the Purchaser.

The Group

The Group is primarily engaged in the mining, processing and marketing of mineral products. The Group is one of the world's largest molybdenum and tungsten producers, and Australia's fourth largest producer of copper. For 2015, the Company realized production volume of molybdenum concentrates (with metal equivalents of 100% MO metal) of 16,999 tonnes, the production cost in unit cash of RMB53,906/tonne and the recovery rate of molybdenum metal of 85.13%. In the same year, the Company realized production volume of tungsten concentrates (with metal equivalents of 100% WO_3) of 9,825 tonnes (excluding Luoyang Yulu Mining Co., Ltd.), the production cost in unit cash of RMB14,925/tonne and the recovery rate of tungsten metal of 78.25%. Furthermore, for 2015, NPM realized production volume of copper metal of 39,964 tonnes calculated based on 80% equity interests, C1 cash cost of USD0.64 per pound and the recovery rate of copper of 88.03%. The Group's key operating assets include Sandaozhuang molybdenum-tungsten mine and facilities located in Luoyang, PRC, as well as the Northparkes copper-gold mine located near Parkes, New South Wales, Australia. The Company is dual-listed on the Hong Kong Stock Exchange (HK3993) and the Shanghai Stock Exchange (SH603993).

REASONS AND BENEFITS OF THE PROPOSED TRANSACTION

As previously disclosed in the Company's 2015 annual report, following the successful acquisition and sound operations of Northparkes, the Company will use the cyclical opportunity in the commodities cycle and search for merger and acquisition of high-quality overseas resources assets in a proactive and cautious manner. The Company has assessed a number of acquisition opportunities across a range of commodities and geographies at various points in the commodity cycle and after the Northparkes transaction. However, until the acquisition of the Niobium and Phosphates Businesses, the Company has not executed any opportunities given its disciplined approach to overseas acquisition and capital allocation.

During the sales process conducted by Anglo, over the course of several months, the Company conducted extensive due diligence on the Niobium and Phosphates Businesses, including on-site visits, review of extensive technical and operational information, financial results, key contracts, and access to Niobium and Phosphates Businesses and the Vendors' management team.

The Board views the Proposed Transaction as a compelling opportunity enhancing the Group's strategy to (i) grow its portfolio of high-quality base, specialty and precious metals assets, and (ii) continue expanding its international business following the acquisition of Northparkes in 2013. The Niobium and Phosphates Businesses have a unique, and attractive combination of strong cash flow generation and significant growth optionality in industries, underpinned by a long history of operational and management track record. Furthermore, the Niobium and Phosphates Businesses are a fully integrated business with joint mine planning undertaken in order to optimize the LOM plans, shared infrastructure and processing where the Tailings Plant processes niobium rich tailings from the phosphate plant, which otherwise would be considered waste. The Niobium and Phosphates Businesses hold leading competitive positions in markets with robust long-term fundamentals.

The Company's management has experiences and expertise for managing overseas mining projects, demonstrated in the acquisition and operation of Northparkes gold and copper mine. In addition to the expertise of the Company's management, the Company is prepared to retain members of the current management team of the Niobium and Phosphates Businesses to ensure a smooth transition and continued operation of the assets.

The Company's decision to expand into the Niobium and Phosphates Businesses reflect its view that acquisitions of the Niobium and Phosphates Businesses will likely generate an attractive long-term return to Shareholders and will enhance the Group's business and financial performance due to the following key highlights:

1. ***The Niobium Business is a scarce, high-quality, long life and low cost asset, and is expected to become the second largest niobium producer globally***

   The Board believes that the Niobium Business, one of three and expected to be the second largest niobium producer globally upon completion of ramp-up of BVFR, represents a unique high-quality producing mining asset which of this scale and quality is rarely accessible or available for acquisition.

   The Niobium Business has the second largest reserves and resources amongst niobium producers in the world, which supports a long mine life until 2038. As of 30 June 2016, the Niobium Business has JORC reported Mineral Resources and Ore Reserves base as follows:

   - JORC reported niobium Proved and Probable Ore Reserves of 41.5 million tonnes of ore at 0.8% Nb_2O_5 grade at a cut-off grade of 0.5% Nb_2O_5 in Ore material and 30.8Mt at 0.7% Nb_2O_5 sourced from the phosphate tails material;

- JORC reported niobium measured and indicated mineral resources of 38.9 million tonnes of ore at 1.0% Nb_2O_5 grade at an open-pit cut-off grade of 0.5% Nb_2O_5 and 0.7% for underground;

- JORC reported niobium inferred mineral resources of 44.1 million tonnes of ore at 1.1% Nb_2O_5 grade at an open-pit cut-off grade of 0.5% Nb_2O_5 and 0.7% for underground; and

- Mineral resources are inclusive of Ore reserves.

Tonnages are metric tonnes reported on a dry basis.

Figures reported are rounded which may result in small tabulation errors. Mineral Resources and Ore Reserves have been reported under the 2012 Edition of the JORC Code.

The Statement of Ore Reserves and Mineral Resource needs to be read in conjunction with the Competent Person's Report in Appendix V, which contains the required JORC Code and HKEx Chapter 18 disclosures.

The current LOM plan assumes that fresh rock supply to the new BVFR plant ends in 2031, and the current niobium LOM completes in 2038. However, existing underground resources offer multiple attractive potential options to continue the utilisation of excess capacity at BV and BVFR plants from 2031. Continuation of the BV and BVFR plant operations post-2038 will also allow the continuation of niobium extraction from phosphate tailings given phosphate mine life until 2061. It is noted further studies and testwork is required to confirm the viability of this potential as outlined in the Competent Person's Report in Appendix V.

Additionally, this high quality asset is also of a significant size to materially enhance the portfolio of the Company from a both cash flow and operational perspective. The Niobium Business is the second lowest cost niobium producer globally according to Roskill, and is expected to preserve and further reduce its low cost structure with expanded production after the ramp-up of BVFR. In 2015, the Niobium Business produced 6.3 thousand tonnes of contained niobium at a C1 operating cash cost (excluding royalties) of only slightly more than half the average realized niobium price.

2. The niobium market has attractive market fundamentals with stable pricing throughout the commodities cycle

The Board strongly believes that the Niobium Business positively complements the current portfolio of the Group, which mainly includes copper, molybdenum and tungsten metals which is more exposed to commodity price volatility.

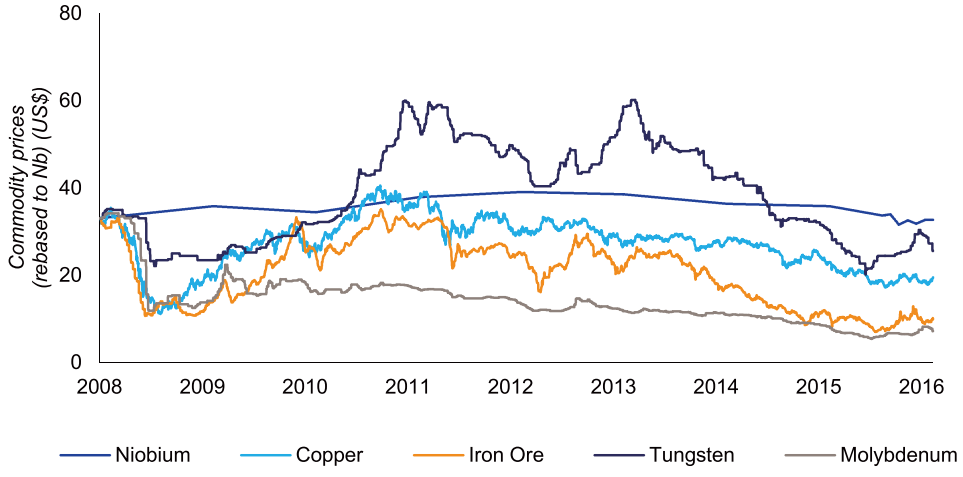
The Board uses the Roskill report as reference for the pricing of the niobium market. RCG is a leader in international metals and minerals research since 1930 and one of the limited number of consultancies with available niobium pricing data. RCG is an independent and privately owned company.

The Board believes that the pricing information as contained in the Roskill report is appropriate and the Board has also taken reasonable care in considering such information. The Board has no reason to believe that such information is false or misleading in any material respect or that any fact has been omitted that would render such information is false or misleading in any material aspect.

In addition, the Board views the Roskill report as a reliable assessment of pricing niobium as there is no material discrepancy between Roskill's data and the actual realized pricing of niobium.

According to the Roskill report, the price of ferroniobium was almost unchanged in current terms for many years. During the 2009 global economic downturn, when demand for ferroniobium fell sharply, in comparison to other commodities ferroniobium prices remained relatively stable. Price stability continued from 2009 to 2015 compared to more significant price declines and volatility in other commodities.

The chart below sets out a comparison of historical prices for niobium, copper, iron ore, molybdenum, and tungsten from 2008 to 1 July 2016 based on Bloomberg data.



Source: Bloomberg and RCG. Niobium prices from RCG, 2016YTD monthly prices based on quoted ferroniobium prices and contained niobium content in ferroniobium product of 66%. Copper prices based on LME cash copper price. Iron ore prices based on iron ore 62% Qingdao China index. Tungsten prices based on tungsten concentrate 65% WO3 China Domestic. Molybdenum prices based on LME molybdenum spot prices.

According to the Roskill report, stable pricing in the niobium market will continue for the following reasons:

- Prices are largely determined by Companhia Brasileira de Metalurgia e Mineração ("**CBMM**") due to its market share (approximately 88%);
- The overwhelming technical advantages offered by the use of niobium;
- Minimal opportunity for substitution of niobium by other alloying elements, including vanadium; and
- Niobium's very small contribution to overall steel production cost, resulting in end consumers being relatively price inelastic.

According to the Roskill report, despite excess capacity in the industry, competing niobium producers, including the Niobium Business, have shared the global market with the dominant player CBMM for many years, while prices remained stable. CBMM's strategy has been focused on growing the ferroniobium market; accordingly, over the years, CBMM has pushed to increase niobium demand and applications by promoting the technical benefits and added value of niobium in different end applications.

Given long-term price stability relative to other commodities, supported by overall market structure and competitive landscape, the Board is of the view that exposure to the niobium market could enhance financial certainty and provide cyclical balance for the Group's portfolio of mining assets in the near and long term.

3. The Niobium Business benefits immediately from derisked, significant expansion, with further optimization underway

The Niobium Business has recently undergone significant expansion after completing the construction of the BVFR plant in November 2014, with total capital expenditure of approximately USD380 million. With commercial production achieved in March 2016, the expansion is significantly derisked, and the Niobium Business is expected to deliver an enlarged production profile in 2016 compared to 2015. Current installed capacity is expected to increase to 6.8ktpa of niobium once the BVFR plant reaches nameplate capacity in the second half of 2016. Combined with debottlenecking activities which are now in ramp-up, the Niobium Business is expected to reach total annual capacity to 9.0ktpa of niobium, and is expected to be second largest niobium producer in the world.

4. The Niobium Business and the Group could leverage existing customer base and in-house marketing expertise to enhance customer reach, strengthen direct client relationships, and promote cross selling potential

The Niobium Business complements the Group's existing molybdenum and tungsten operations, enhancing its leadership in special alloys. Niobium and molybdenum are both used in the production of specialty steel. Adding the Niobium Business would broaden the Group's product offering to downstream steel mill customers. Given similar target client base, the Board expects to extract synergies in potential cross selling between the Group and the Niobium Business' customer networks, marketing and after-sales technical support. The Board also expects that the Niobium Business could leverage the Group's current network of value-added steel customers to support the Niobium Business to continue its client base optimization by shifting toward direct sales. Furthermore, with its substantial marketing capabilities, customer relationships and market leading position in China, the Group could enhance the Niobium Business' potential sales expansion in China, which represented only 38% of total sales volume in 2015. Similarly, the Group could leverage the Niobium Business' sales network and customers based in Europe and other western countries towards the Company's molybdenum business expansion into overseas markets.

It is expected that the acquisition of the Phosphates Business will enhance the Group's business and performance due to the following key highlights:

1. The Phosphates Business further diversifies the Company's business mix

The Phosphates Business provides the Company with diversification benefits to its current metals portfolio. The Company will become a low cost and second-largest supplier of phosphates in Brazil. Phosphate production is tied to the agricultural industry, where phosphates are one of the three main components of fertilizers, along with nitrogen and potassium. Demand for phosphates has increased steadily over the past five years, and is expected to grow in the near- and mid-term due to increasing global demand for agricultural products. The Phosphates Business produces a combination of "low analysis" and "high analysis" phosphates products which are all sold locally. The Company has the ability to modify its product mix to suit local market needs and conditions. By acquiring the Phosphates Business, the Company is diversifying its industrial and precious metals exposure by entering into a new commodity mix, new geography, and by gaining direct exposure to the local Brazilian agricultural sector.

2. The Phosphates Business is structurally advantaged by its location

The Phosphates Business is located in Brazil's agricultural heartland and thereby enjoys a significant structural and logistical advantage. Brazil has the largest availability of arable land and fresh water in the world, with regular rainfall, all-year-round crop cycle, competitive

farming costs, low cost of land, qualified labor, and a stable regulatory environment. The agricultural sector is an important part of Brazil's economy and will continue to be a major source of export revenue and local employment. For example, Brazil is the world's largest producer of coffee beans and sugar cane, and the second largest producer of soybeans, supporting both critical local and export industries.

The prominence of the agricultural sector in Brazil has positioned the country as the third largest phosphate consumer in the world. Brazil is constrained by limited local production of phosphate products; resulting in the Brazilian market currently being dependent on imports to meet the demand of its fertilizer needs.

Due to a combination of Brazil's dependence on the agricultural sectors and its structural import deficit concerning fertilizers, the Phosphates Business is very well positioned for continued success: it has the lowest delivered cost position factoring in handling, transportation, and other logistics versus other local producers and importers in a key demand region.

3. The Phosphates Business has strong fundamentals that drive superior financial performance

The Phosphates Business has the highest P_2O_5 grade in Brazil. This high in-situ content margin allows the business to deliver product at the lowest landed cost in key demand regions to an established and stable customer base. Currently, the reserve mine life stands at over 46 years with additional potential exploration upside. In addition, the Phosphates Business is the second largest and one of only three vertically integrated fertilizer producers in Brazil, with upstream and downstream operations encompassing phosphorus mining, processing, and purifying for P_2O_5 concentrate and manufacturing of intermediate and final products.

4. The Phosphates Business offers near term growth and long term growth optionality

The Phosphates Business has a valuable range of growth options, including opportunities to significantly increase the scale of the business as well as to change the production mix between "low analysis" and "high analysis" fertilisers. These brownfield expansion options have the potential to yield a strong return, given the strategically attractive location of the business and the largely incremental nature of required capital investments. The Phosphates Business also has the option to develop the Coqueiros deposit, a significant ore body close

to the existing Chapadão mine, and the Morro Preto deposit, a greenfield investment that provides an opportunity for significant expansion situated in the key agricultural region within Brazil.

The addition of niobium to the Company's existing operations in copper, molybdenum, gold and tungsten strengthens the Company's leadership position in the alloys market, while the addition of phosphate to the product portfolio diversifies acute commodity risk by reducing overall exposure and concentration to steel-making alloys. Following the Northparkes transaction, the Company continues to expand its global footprint by diversifying its geographic exposure and adding new regions in which it operates. The Phosphate Business enjoys the lowest cost position delivered to one of the key agricultural centers of Brazil. It also enhances the Company's earnings and cash flow through substantial and stable operating margins. With this new acquisition, the Company becomes an active and meaningful participant in Brazil and South America, a key emerging global market.

Benefits of proposed acquisition

The Board expects the Proposed Transaction to be immediately accretive to net asset value per Share, earnings per Share and cash flow per Share, based on the Company's estimates (with reference to the Valuation Report and the Competent Person's Report) of the net asset value, profitability and cash flow generation associated with the Niobium and Phosphates Businesses. In addition, the Directors (including the independent non-executive Directors) consider that the terms of the Proposed Transaction are fair and reasonable and in the interests of the Company and the Shareholders as a whole.

EFFECTS OF THE PROPOSED TRANSACTION

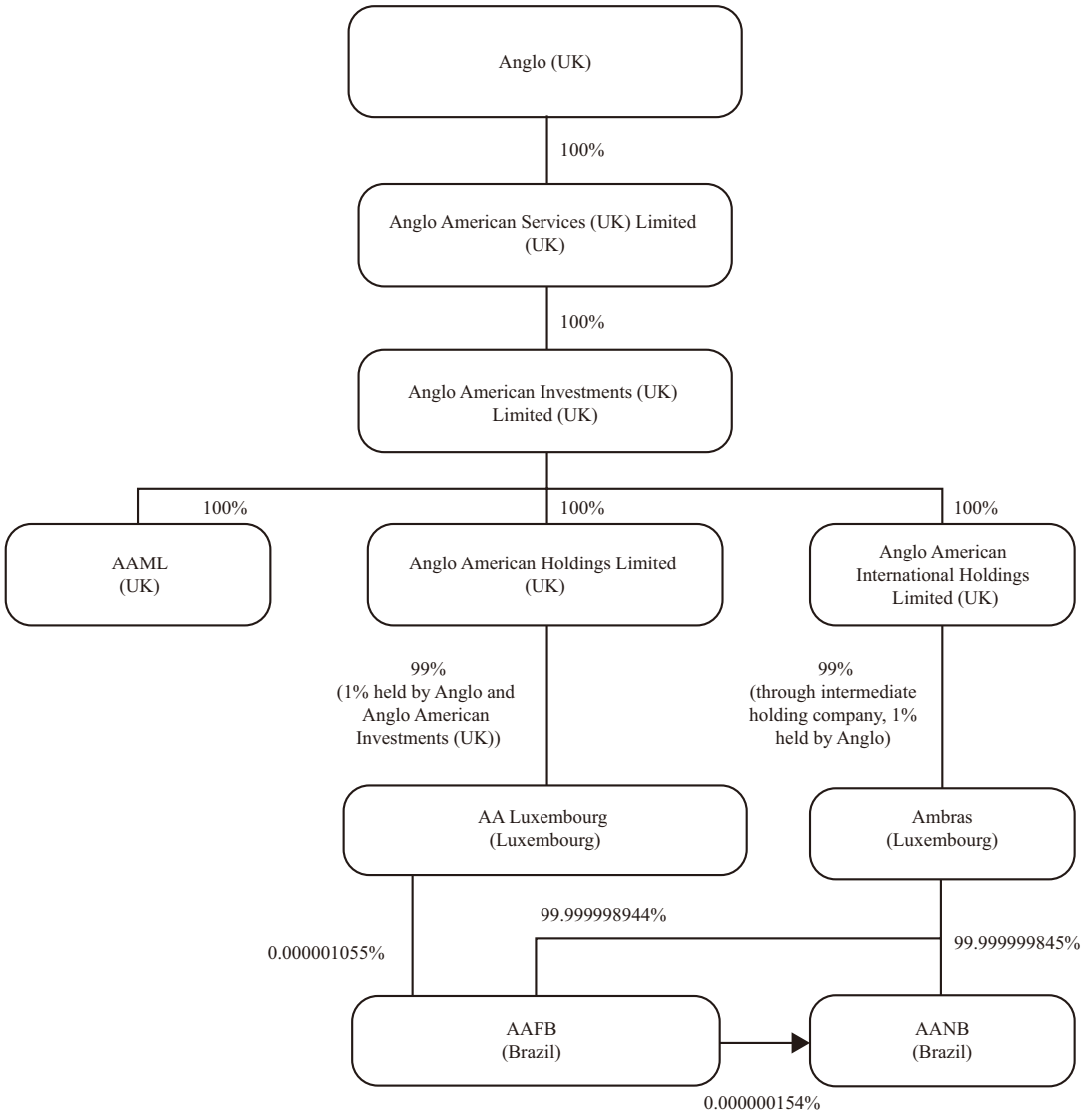
Shareholding structure

The Directors confirm that there will be no change in control of the Company as a result of the Proposed Transaction.

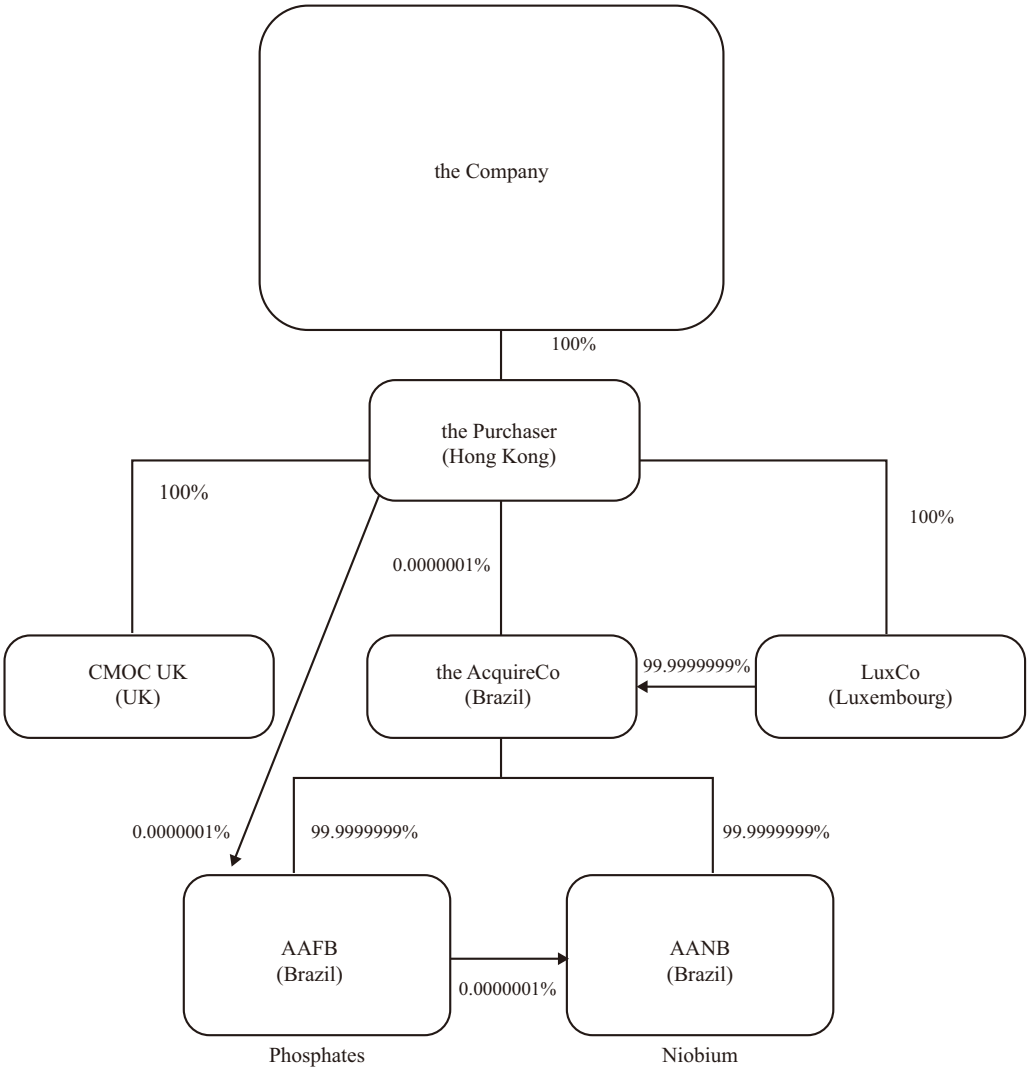
Structure of the Business

Assuming no changes in the holding of participating interests in the Niobium and Phosphates Businesses between the Latest Practicable Date and the Completion Date, the simplified structure of the Company and Niobium and Phosphates Businesses as at the Latest Practicable Date and immediately upon Completion are illustrated as follows:

As at the Latest Practicable Date:



Immediately after Completion:



Financial effects

Upon Completion, (i) AAFB and AANB will become indirect wholly owned subsidiaries of the Company.

The following table sets out, for illustrative purposes only, the key financials of the Group and the pro forma financial information of the Enlarged Group after completion of the Proposed Transaction as if the Proposed Transaction had been completed as on 30 June 2016 for pro forma consolidated statement of financial position. The pro forma financial information of the Enlarged Group has been prepared based on the judgments and assumptions of the Directors for illustrative purposes only. It may not reflect the true financial position of the Enlarged Group as at 30 June 2016 or any future date due to its hypothetical nature. As the estimated fair values of the assets, liabilities and contingent liabilities of the Niobium and Phosphates Businesses used in the preparation of the pro forma financial information of the Enlarged Group might differ from their respective actual fair values upon Completion, the actual financial effects of the Proposed Transaction might be materially different from the financial position as shown in Appendix IV of this circular.

Consolidated Statement of Financial Performance

Effect of the Proposed Transaction on the financial performance of the Company

Based on the accountants' reports on the Niobium Business and the Phosphates Business as shown in Appendices IIA and IIB of this circular, the aggregate net profits (before taxation) attributable to the Niobium and Phosphates Businesses for each of the two years ended 31 December 2014 and 2015 are approximately USD112.75 million and USD83.30 million, respectively; while the aggregate net profits (after taxation) attributable to the Niobium and Phosphates Businesses for the same period are approximately USD49.20 million and USD56.43 million, respectively.

Based on the audited financial information for the year of 2015 of the Company, AAFB and AANB, the below table sets out the expected effect of the Proposed Transaction on the financial performance of the Company:

	Audited consolidated statement of financial performance of the Company before Completion *RMB (million) (approx.)*	**Estimated financial performance of the Company after Completion** *RMB (million) (approx.)*
Revenue	4,196.84	7,817.08
Net profit attributable to owners of the Company	761.16	1,138.31

Note: The translation of USD into RMB in the above table is based on the exchange rate of USD1.00 to RMB6.68 and is provided for information purposes only.

Consolidated Statement of Financial Position

	Unaudited consolidated statement of financial position of the Group as at 30 June 2016 *RMB (thousand) (approx.)*	**Pro forma consolidated statement of financial position of the Enlarged Group as at 30 June 2016 (as disclosed in Appendix IV)** *RMB (thousand) (approx.)*
Total current assets	18,468,354	9,717,098
Total assets	34,334,396	36,829,871
Total current liabilities	9,346,130	10,379,812
Total liabilities	16,561,455	19,209,882
Total shareholders' equity	17,772,941	17,619,989

For further information, please refer to Appendix IV to this circular for the pro forma financial information of the Enlarged Group.

As extracted from the interim report of the Company for the six months ended 30 June 2016, the unaudited consolidated net assets of the Group as at 30 June 2016 were approximately RMB17,773 million, comprising total assets of approximately RMB34,334 million and total liabilities of approximately RMB16,561 million. As extracted from the audited financial statements of the Company for the year ended 31 December 2015, the total net profit of the Group for the financial year ended 31 December 2015 was approximately RMB703 million.

According to the pro forma financial information of the Enlarged Group as set out in Appendix IV to this circular, the pro forma net assets of the Enlarged Group as at 30 June 2016 would be approximately RMB17,620.0 million, comprising pro forma total assets of approximately RMB36,829.9 million and pro forma total liabilities of approximately RMB19,209.9 million.

The pro forma consolidated statement of financial position of the Enlarged Group as at 30 June 2016 was prepared based on (i) the unaudited consolidated statement of financial position of the Group as at 30 June 2016, as set out in the Company's published interim report for the six months ended 30 June 2016; and (ii) the audited combined statements of financial positions of the Niobium and Phosphates Businesses as at 30 June 2016 as set out in Appendices IIA and IIB, after incorporating pro forma adjustments described in the accompanying notes as set out in Appendix IV to this circular, assuming the Proposed Transaction was completed on 30 June 2016.

Financial and Trading Prospects of the Enlarged Group

The Enlarged Group will continue to focus on its goal of becoming a substantial base, precious and specialty metals producer. The Enlarged Group will focus on managing existing assets effectively to maintain their production profile and competitive cost positions, and realize operational efficiencies to maximise our profitability. The Board will continue to evaluate opportunities for further project development and expansion within our existing assets as appropriate, subject to supportive market conditions.

The Enlarged Group will also generate cash flows from a diversified range of commodities, including molybdenum, tungsten, copper, niobium and phosphate. The Board believes the Enlarged Group will generate more stable financial performance and cash flow profile with a broader array of exposures to end markets, geographies and customers.

We will also continue to leverage our marketing capabilities in the PRC and in other jurisdictions, and our extensive global customer network, to maintain our competitive position and client relationships across the Enlarged Group's key commodities. The Enlarged Group will continue to source new customers and suppliers to expand the portfolio of our trading business and to strengthen our revenue-generating ability.

The Enlarged Group will have a strengthened and larger scale platform to pursue further acquisitions overseas with compelling value to the Enlarged Group. The Enlarged Group will have substantial access to funding, which will enable it to pursue value accretive acquisitions in precious, base and specialty metals. In particular, the Enlarged Group will consider acquisitions of producing mines or near production assets, where the risk associated with construction and development is limited.

The Enlarged Group will continue to monitor global financial markets and its own capital structure, and will continually reassess the optimal capital structure for its business. This may or may not involve the negotiation of new bank facilities, the renegotiation of existing bank facilities, and may involve accessing the public equity and debt capital markets. At all times the Enlarged Group will seek to have in place a capital structure that supports its strategic objectives, whilst minimising the cost of capital.

Business Plan and Strategy

The Niobium and Phosphates Businesses are high quality assets with long operating history and management track record. Furthermore, the Niobium Business has recently completed a significant capacity expansion with commercial production at the BVFR plant successfully achieved in March 2016. In the near to medium term, the Board intends to bring BVFR plant into full production in line with market demand and conditions. The business plan and strategy will include the following aspects from each respective business:

- The Niobium Business will focus on:
    - achieving full production at BVFR;
    - debottlenecking optimization now in ramp-up;
    - monitoring further opportunities for cost optimization; and
    - continuing to enhance customer base by enlarging longer-term contract base and direct client relationships.

- The Phosphates Business will focus on:

  - various growth options, including opportunities to significantly increase the scale of the business through brownfield and greenfield expansion potential as well as to increase the production mix flexibility between "low analysis" and "high analysis" fertilisers; and

  - continue to develop and implement operational improvements to drive further advances in production and cost performance.

Given the mature and advanced mining operations of the Niobium and Phosphates Businesses, the completion of BVFR plant expansion, and the relatively stable, strong cash flow generation at both assets historically, the Company expects that capital expenditure would mainly be associated with maintaining ongoing operations and infrastructure.

Based on the Company's forecasts of the cash flow position for the Niobium and Phosphates Businesses (including cash operating costs, capital expenditure and strong positive cash flows), an assessment of a range of reasonable commodity price scenarios, the Company expects that the cash flow generated by the Niobium and Phosphates Businesses will be able to fund its own capital expenditure and working capital requirements. Upon Completion, the Company will conduct a review of the Niobium and Phosphates Businesses and put in place a budget and medium term plans covering up to 5 years, which will be reviewed annually. The budget and medium term plan will include a review the funding position of the Niobium and Phosphates Businesses. To the extent there is expected to be a shortfall in the overall funding position of the Niobium and Phosphates Businesses, the Company will contribute funding through internal resources or such other means as the Company considers appropriate.

As disclosed in announcements of the Company, on 9 May 2016, after the date to which the latest published audited financial statements of the Company were made up, the Purchaser and the Company, as guarantor, entered into a stock purchase agreement with Phelps Dodge Katanga Corporation and Freeport-McMoRan Inc., pursuant to which the Purchaser has agreed to purchase all of the issued and outstanding ordinary shares of Freeport-McMoRan DRC Holdings Ltd. (a Bermuda exempted company), which holds 70% interest in TF Holdings Limited (a Bermuda exempted company), which in turn holds 80% interest in Tenke Fungurume Mining S.A., which in turn owns the Tenke Fungurume copper-cobalt mine located in the Democratic Republic of Congo. The consideration is USD2.65 billion (equivalent to approximately HKD20.67 billion) (subject to customary adjustments) plus certain contingent purchase price (up to USD120 million, if any) (equivalent to approximately HKD936 million). The Purchaser will satisfy the consideration through a combination of the Group's existing cash reserves and undrawn credit facilities. The remuneration payable to and benefits in kind receivable by (if any) by the Directors will not be varied in consequence of this proposed acquisition.

As at the Latest Practicable Date, the Company has no intention, nor entered into any negotiation, agreement, arrangement or understanding (concluded or otherwise) about any disposal, scaling-down and/or termination of its existing businesses. In addition, save as otherwise disclosed in this Circular and the announcements published by the Company, as at the Latest Practicable Date, the Company has no intention for further acquisition or investment in other industry, or identified any suitable investment opportunities.

IMPLICATIONS UNDER LISTING RULES

Proposed Transaction

As one or more of the applicable percentage ratios calculated under Rule 14.07 of the Listing Rules with respect to the Proposed Transaction exceed 25% but are less than 100%, the Proposed Transaction constitutes a major transaction of the Company for the purposes of the Listing Rules, and is therefore subject to the notification, announcement and shareholders' approval requirements under Chapter 14 of the Listing Rules.

To the best of the Directors' knowledge, information and belief, having made all reasonable enquiries, no Shareholder has a material interest in the Proposed Transaction. Therefore, no Shareholder is required to abstain from voting on the relevant resolutions to be proposed at the EGM to consider and approve, among other things, the Proposed Transaction and the transactions contemplated thereunder. If the Vendors and their controlling shareholders hold any Shares on the date of the EGM, they will be required to abstain from voting on the relevant resolutions to be proposed at the EGM in relation to, among other things, the Proposed Transaction and the transactions contemplated thereunder.

Waiver from strict compliance with Rule 4.03 of the Listing Rules

In accordance with Rule 4.03 of the Listing Rules, accountants' reports on the Niobium Business and the Phosphates Business which are included in this circular must be prepared by certified public accountants who are qualified under the Professional Accountants Ordinance (Cap. 50 of the Laws of Hong Kong). Rule 4.03 of the Listing Rules also provides that, in the case of a circular issued by a listed issuer in connection with acquisition of an overseas company, the Hong Kong Stock Exchange may be prepared to permit the accountants' report to be prepared by a firm of practising accountants which is not so qualified but which is acceptable to the Hong Kong Stock Exchange. Such firm must normally have an international name and reputation and be a member of a recognized body of accountants.

The Niobium and Phosphates Businesses are situated in Brazil, the accounting records of the Niobium and Phosphates Businesses are maintained under the General Accepted Accounting Principles adopted in Brazil. Deloitte Brazil is engaged to conduct an audit on the underlying financial information of the Niobium and Phosphates Businesses for the three preceding years ended 31 December 2015 and the six months ended 30 June 2016 prepared in accordance with International Financial Reporting Standards. Given the geographical proximity and the tight timetable for the publication of this circular as agreed between the Vendors and the Purchaser as part of the competitive bidding process, it is therefore more cost and time effective to engage Deloitte Brazil to issue the accountants' reports of the Niobium Business and the Phosphates Business in accordance with the International Financial Reporting Standards. Although Deloitte Brazil is not registered under the Professional Accountants Ordinance, it is registered under the applicable laws of Brazil, is a member of the Federal and Regional Accounting Council and a member of The Brazilian Institute of Independent Auditors which is a member of the International Federation of Accountants. Deloitte Brazil is the member firm of a reputable international accounting practice of Deloitte Touche Tohmatsu. The Board is of the view that it is more appropriate to appoint Deloitte Brazil instead of professional accountants who are qualified under the Professional Accountant Ordinance as reporting accountants for the purpose of issuing the accountants' reports of the Niobium Business and the Phosphates Business to be included in this circular. The Company has therefore applied to the Hong Kong Stock Exchange for a waiver from strict compliance with Rule 4.03 of the Listing Rules to allow Deloitte Brazil to prepare the accountants' reports of the Niobium Business and the Phosphates Business for the inclusion in this circular. Such waiver was granted by the Hong Kong Stock Exchange on 1 June 2016.

3. EGM

The Board proposed to seek the Shareholders' approval at the EGM to approve the Proposed Transaction. Notice of the EGM has been dispatched to the Shareholders on 8 August 2016. Copy of the notice of the EGM is set out on pages IX-1 to IX-3 of this circular for ease of reference.

LMG and CFC, the controlling shareholders of the Company who in aggregate hold approximately 63.14% equity interest in the Company, have irrevocably undertaken to vote in favour of the resolutions to approve the Proposed Transaction.

4. CLOSURES OF REGISTER OF MEMBERS

In order to determine the list of H Shareholders who will be entitled to attend and vote at the EGM, the Company's register of members of H Shares is closed from Wednesday, 24 August 2016 to Friday, 23 September 2016 (both days inclusive) during which period no transfer of shares would be effected. H Shareholders whose names appear on the register of members of H Shares of the Company at 4:30 p.m. on Tuesday, 23 August 2016 are entitled to attend and vote at the EGM. In order for the H Shareholders to qualify for attending and voting at the EGM, Shareholders whose H Shares are not registered in their names should complete and lodge their respective instruments of transfer with the relevant H Share certificates with Computershare Hong Kong Investor Services Limited, the Company's H Share registrar in Hong Kong, at Shops 1712–1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong, and in any case no later than 4:30 p.m. on Tuesday, 23 August 2016.

5. PROXY ARRANGEMENT

Form of proxy applicable to the EGM has been despatched to Shareholders on 8 August 2016 and such form of proxy has also been published on the websites of the Hong Kong Stock Exchange (http://www.hkexnews.hk) and the Company (http://www.chinamoly.com).

For H Shareholders, whether or not you are able to attend the EGM in person, you are requested to complete the proxy form applicable to the EGM in accordance with the instructions printed thereon, and return it to the Company's H Share registrar in Hong Kong, Computershare Hong Kong Investors Services Limited, at 17M Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong, as soon as possible but in any event not less than 24 hours before the time appointed for holding the EGM or any adjournment thereof. Completion and return of the proxy form applicable to the EGM will not preclude you from attending and voting in person at the EGM or any adjournment thereof should you so wish.

6. VOTING BY WAY OF POLL

Pursuant to Rule 13.39 of the Listing Rules, any votes of the Shareholders at the EGM must be taken by poll except where the chairman, in good faith, decides to allow a resolution which relates purely to a procedural or administrative matter to be voted on by a show of hands. The poll results announcement will be announced by the Company after the EGM in the manner prescribed under Rule 13.39(5) of the Listing Rules.

The Company will offer a platform to A Shareholders (including Northbound Investors) to vote online through the general meeting online voting system of the SSE. Please refer to the relevant announcements published by the Company on the SSE for details.

7. RECOMMENDATIONS

The Board considers that the Proposed Transaction described in this circular is fair and reasonable and in the best interests of the Company and the Shareholders as a whole. Accordingly, the Board recommends the Shareholders to vote in favour of the relevant resolutions to be proposed at the EGM as set out in the notice of EGM.

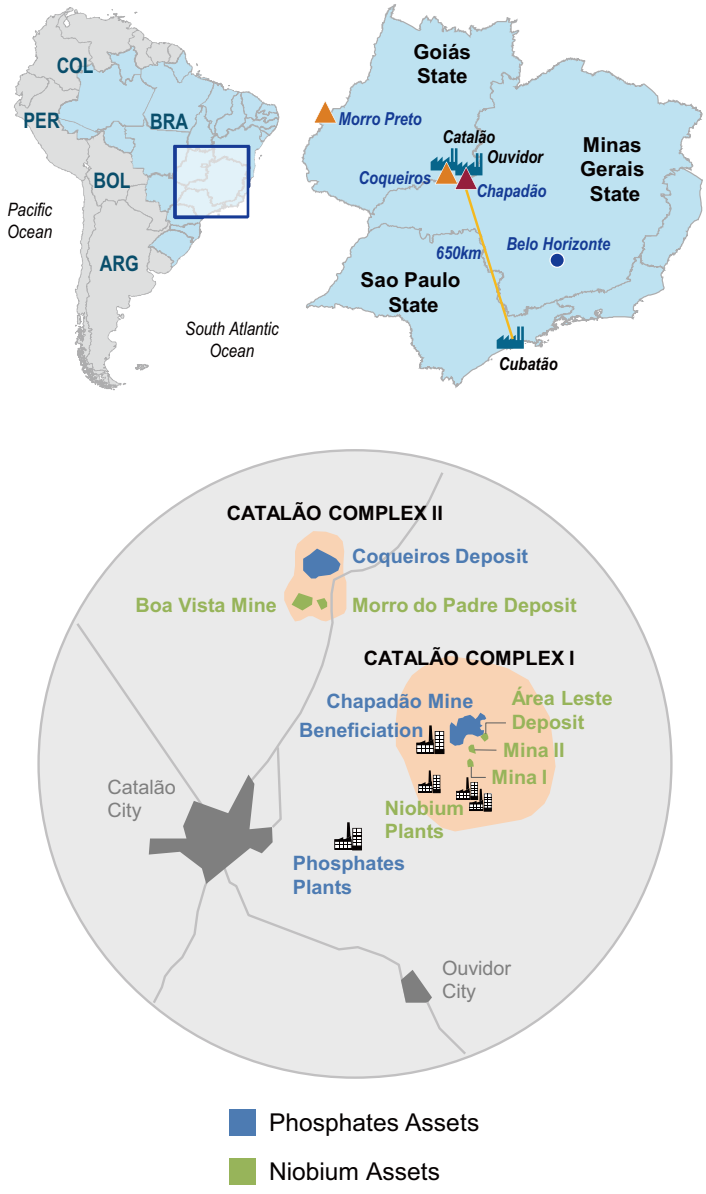
Yours faithfully,
By Order of the Board
China Molybdenum Co., Ltd.*
Li Chaochun
Chairman

OVERVIEW OF THE NIOBIUM AND PHOSPHATES BUSINESSES

THE NIOBIUM BUSINESS

The Niobium Business is one of only three niobium producers in the world, and is expected to become the second largest producer with the completion of a recent expansion. As shown on the map below, the Niobium Business is located in the municipality of Ouvidor, in the southeast region of the state of Goiás, central Brazil and approximately 300km from the capital, Brasília, and 800km from São Paulo. The Niobium Business comprises the following assets: Boa Vista open-pit mine, Mina I and Mina II mines, the BV plant, the BVFR plant, the Tailings Plant, Área Leste deposit and Morro do Padre deposit.

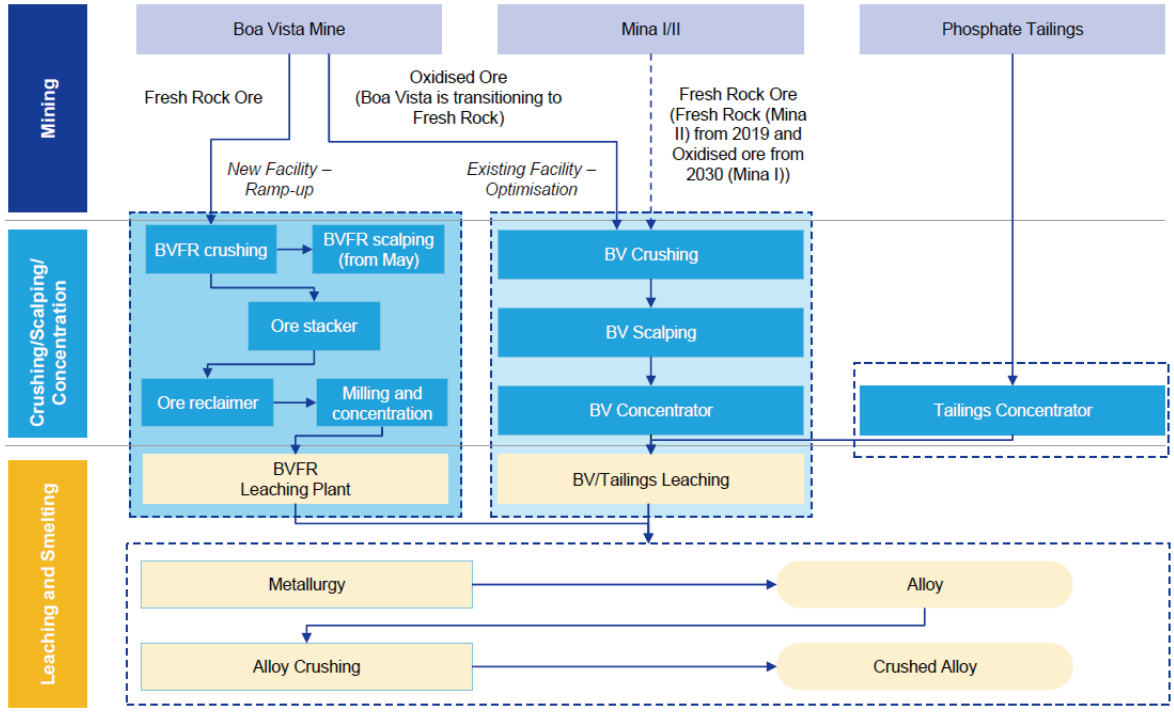
Map of Niobium and Phosphates Businesses



The start of the Niobium Business operations date back to the beginning of the 1970's with Mina II followed by Mina I both located in Complex I. In 2000, mining in Mina I ceased and operations were concentrated in the Boa Vista mine in Complex II. A new beneficiation plant was built especially for the processing of phosphates tailings to extract Niobium and in 2008, the Tailings Plant began production.

The Niobium Business has recently undergone significant expansion with the completion of construction at the BVFR plant in 2014, with total capital expenditure of approximately USD380 million. Current installed capacity is expected to increase to 6.8ktpa of niobium once the BVFR plant reaches nameplate capacity in the second half of 2016. Upon successful expansion, the Niobium Business is expected to be the second largest niobium producer in the world. When combined with debottlenecking activities now in ramp-up, the Niobium Business is expected to reach total annual capacity to 9.0ktpa of niobium.

The production process of the Niobium Business is summarized as follows:



Geology

Below outlines information on the geology of the area extracted from the Competent Person's Report prepared by RPM. Only BV mine is currently being mined.

Catalão I complex – Mina I, Mina II and Área Leste

Three deposits of niobium (Mina I, Mina II and Área Leste) have been defined over carbonatites intruded in the central portion of the complex, and occur within the weathered portions of the intrusives. The mineralised thickness averages approximately 80m, reaching a maximum of 120m. The weathered materials consist of lateritic cover and underlying saprolite (same as the Phosphate weather).

The Catalão I complex contains both fresh rock and residual (weathering-related) niobium mineralisation. The fresh rock niobium deposit consists of sub vertical two pipe-shaped bodies named Mina II and Área Leste emplaced in carbonatite and phlogopitite. The bodies consist of dike swarms of pyrochlore-bearing, olivine-free phoscorite-series rocks (nelsonite) that can be either apatite-rich (P2 unit) or magnetite-rich (P3 unit). Natropyrochlore and calciopyrochlore are the most abundant niobium phases in the fresh rock deposits. Pyrochlore supergroup chemistry shows a compositional trend from Ca–Na dominant pyrochlores toward Ba-enriched kenopyrochlore in fresh rock and the dominance of Ba-rich kenopyrochlore in the residual deposit.

Below is a general description of each deposit:

Mina I

The Mina I deposit is confined to the saprolite layer and has been crosscut by many carbonatite dykes, forming box work structures which show magmatic structures like magma flows or brecciation. There are many different rock types which in general take the form of vertical dykes.

Mina II

Mina II is a sub-vertical pipelike body which varies in thickness from 20 to 80m and have been defined up to 600m in depth. Mineralisation occurs both in the oxide and fresh rock (oxide mined out) associated with the three main lithologies nelsonites, carbonatites and phlogopitites.

Área Leste

The Área Leste deposit is similar in orientation and geometry to the Mina II deposit and occurs as a sub vertical pipe-like body nelsonite with carbonates, magnetite and phlogopite and accessory apatite and pyrochlore among others. Nelsonite intruded ultramafic and carbonatites forming the primary conditions for supergene residual enrichment of niobium. The supergene profile comprises 60–120m of laterites and saprolite (which forms the current resource). The saprolite base is characterized by occurrences of vermiculite and enriched apatite and anastase horizons as is typical of the region. The lateritic cover is mainly formed by goethite, and fine-grained pyrochlore is surrounded by iron-oxides.

Catalão II Complex – Boa Vista and Morro de Padre

Two significant niobium deposits have been defined to date and are named Boa Vista and Morro de Padre deposits. These deposits are hosts by igneous rocks which occur as swarms of thin dikes, forming a stockwork of crosscutting dikes in the upper zone and varying to individual mineralised thicker dikes at depth.

Niobium mineralisation is associated with nelsonite vein which vary in thickness and orientation forming stock work style deposits. Containing magnetite-apatite-carbonate composition economic mineralisation is exclusively associated with the mineral pyrochlore. The nelsonite veins are hosted within a variety of pre-existing lithologies including amphibolite and fenite, a metasomatically altered rock believed to originally comprise phyllite. Phlogopite alteration may also be associated with the carbonatite veins, where it commonly occurs as haloes surrounding the veins and overprinting the fenite. To a lesser extent phlogopite occurs as selvages to the nelsonite veins.

Both the Boa Vista and Morro de Padre deposits occur as pipe-like bodies consisting of sub-vertical major feeder structures that permit vertical passage of the deep-seated carbonatite magmas to shallower depths where the dykes split into a complex stockwork of veins and veinlets. The stockwork zones are approximately 270m (N-S) by 350m (E-W) and are considered to be a result of magma degassing in response to reducing confining pressures and the formation of multiple sets of tensional fractures by the expanding gas exsolving from the ascending magma. A direct consequence of this model is the higher density of veins close to the central feeder zones, with decreasing vein abundance with increasing distance from the feeder zones. The vertical extent over which niobium mineralisation has been identified to a depth approximately 600m, however the drilling density is significantly higher in Boa Vista.

Reserves & resources

The following table sets out the Proved and Probable JORC Ore Reserves estimate for the Niobium Business as at 30 June 2016, under the 2012 JORC Code:

Description	**Quantity** *(Mt)*	**Nb_2O_5** *%*	**Nb_2O_5** *(Metal t)*
Niobium Ore			
Proved	0.5	0.90	6.12
Probable	34.5	0.92	321.8
Sub Total	**34.5**	**0.92**	**327.9**
LG Stockpile (P&P)			
Niobium Ore	6.4	0.40	25.9

The following table sets out the statement of Mineral Resources estimates for the Niobium Business as at 30 June 2016, inclusive of Mineral Reserves under the 2012 JORC Code:

Complex	**Project**	**Material Type**	**Cutoff** *(%)*	**Category**	**Tonnes** *(MT)*	**Nb_2O_5** *(%)*
Catalão I	**Mina I**	**Oxide OP**	0.5	Measured		
				Indicated	7.9	0.97
				Inferred	5.5	0.92
				Sub-Total	13.4	0.95
	Mina II	**Fresh Rock OP**	0.5	Measured	0.1	1.19
				Indicated	3.2	1.19
				Inferred	2.6	1.06
				Sub-Total	5.9	1.13
		Fresh Rock UG	0.67	Measured		
				Indicated		
				Inferred	2.2	1.07
				Sub-Total	2.2	1.07
		All		**Total**	8.1	1.12
	Área Leste	**Oxide OP**	0.67	Measured		
				Indicated		
				Inferred	2.7	1.07
				Sub-Total	2.7	1.07
		Fresh Rock UG		Measured		
				Indicated		
				Inferred	13.0	1.22
				Sub-Total	13.0	1.22
		All		**Total**	15.7	1.19
Catalão II	**Boa Vista**	**Oxide OP**	0.5	Measured	0.3	0.86
				Indicated	0.1	0.74
				Inferred	1.3	0.83
				Sub-Total	1.7	0.83
		Fresh Rock OP		Measured		
				Indicated	27.1	0.95
				Inferred	13.1	1.06
				Sub-Total	40.2	0.99
		Fresh Rock UG	0.58	Measured		
				Indicated	0.2	0.89
				Inferred	6.3	1.24
				Sub-Total	6.5	1.23
		All		**Total**	48.4	1.01

1. Tonnages are metric tonnes reported on a dry basis.

2. Figures reported are rounded which may result in small tabulation errors. Mineral Resources and Ore Reserves have been estimated under the 2012 Edition of the JORC Code.

In addition to the above Mineral Resource and Ore Reserve quantities, 30.8 Mt at 0.7% Nb_2O_5 is estimates as part of the JORC Mineral resources. This niobium resource is the fines phosphate (15% of total phosphate tails) and is processed in the tail niobium concentrator.

The Statement of Ore Reserves and Mineral Resource need to be read in conjunction with the Competent Person's Report in Appendix V, which contains the required JORC Code and HKEx Chapter 18 disclosures.

Mining

The mining method used in all the current niobium mines of the Niobium Business is conventional open-pit with benches, blasting with explosives and transportation of ore by trucks to the crushing facility.

The Boa Vista mine currently supplies all material feed for niobium production except production from the Tailings Plant. The ore from this mine supplies two plants. The BV plant processes weathered or oxidized ore. The BVFR plant, designed to treat fresh rock ore situated at deeper levels, began construction in 2011 and reached first production in 2014. The BV plant is expected to be modified to beneficiate ore from Mina II starting in 2018, as mining at Mina II is expected to start in 2018. As the Boa Vista mine depletes, in 2028, Mina I, which consists of oxidized ore, will be mined to support niobium production profile at the BV plant. Mina II is expected to deplete in 2028. Mina I and II, located in the Complex I, will also be mined by conventional open-pit methods with multiple benches.

The niobium ore from the Boa Vista mine is mined using conventional open-pit mining methods in multiple benches in a confined mine. Operations commence with waste stripping, or the removal of the organic waste soil layer, which covers the economically viable ore to be explored. It is carried out by backhoe loaders, which remove the material and load the waste onto the trucks, which transport and unload the material in the waste dump. The Boa Vista LOM schedule was developed targeting an approximate ore production rate of 2Mtpa, and the mine is expected to be depleted in 2028. According to the Competent Person's Report, in 2017, the first full year of full production at the BVFR plant, average ore mined at Boa Vista is expected to be 2.5Mtpa.

The niobium ore is expected to be mined at Complex I (Mina I and II) using a method similar to the one described. Production at both mines is similar, around 0.55Mtpa, in line with the BV plant's capacity. The average grade of Mina II is expected to be 1.06% Nb_2O_5, while Mina I is expected to be 0.92% Nb_2O_5, excluding dilution. The drilling, blasting, loading and transport activities are carried out by a hired company as they are at the BV mine.

All of the mining operations at the Niobium Business are undertaken by specialist contractors under AANB's supervision.

Processing

The mined niobium ore is processed in two plants, being the BV plant and the BVFR plant. The BV plant, which processes oxidized ore from the Boa Vista mine, will later be modified to handle material from Mina II and I. The second, recently constructed, plant is the BVFR plant, which processes fresh rock ore from the Boa Vista mine. In addition, there is the Tailings Plant which treats the phosphate plant tailings to produce a niobium concentrate. The niobium concentrate from all three plants are further processed through an alkaline and acid leaching process to remove other impurities. The leached products are combined and sent to the kiln in order to remove water. The last stage of the niobium processing circuit is an aluminothermic reaction by batch that produces a ferroniobium alloy with a grade of 65% Nb, in conformity with international standards.

The BVFR plant was recently brought online with completion of construction in November 2014. It is expected to add concentrate capacity of 8.6ktpa of Nb_2O_5, increasing total Nb production capacity to 9.0ktpa Nb later in 2016, combined with debottlenecking and scalping activities now in ramp-up.

Boa Vista Fresh Rock (BVFR)

The investment in constructing the BVFR plant totaled approximately USD380 million. In 2011, construction commenced and in 2014 construction was completed, and trial operation was commissioned in November of the same year. The BVFR plant mainly covers the following processing steps: crushing, scalping, concentration, leaching and smelting. The plant processes and handles the fresh rock from Boa Vista mine. The commissioning phase officially began in late 2014 and it is still in progress, planned to be fully completed in second half of 2016, when all the process design criteria are expected to be met and the BVFR plant will be in full production. The BVFR plant is expected to have processing capacity of 1.47Mtpa ore and production capacity of 8.6ktpa pure Nb_2O_5 with concentrate grade of 55%.

From mid-2015, the BVFR plant's crushing capacity reached the design capacity of 176 tonnes of ore per hour. Currently, the recovery rate of the BVFR plant has reached approximately 85% of design target. With the completion of the scalping equipment and improvement of process stability, the recovery rate of the BVFR plant is moving closer to the design target of 56% Nb_2O_5. RPM notes the forecast recovery rate of 56% is reasonable, given that it is still in commissioning of complex project and correcting the blending will improve recovery.

Due to the capacity constraints in the current leaching and smelting equipments, the annual output of the BVFR plant has been limited. An expansion has been carried out for this downstream capacity, and is now in ramp-up, increasing the overall annual Nb capacity to 9.0kt.

Boa Vista (BV) Plant

The BV plant is expected to have processing capacity of 600ktpa ore and production capacity of 2.7ktpa pure Nb_2O_5 with concentrate grade of 55%. The BV plant currently processes oxidized ore from the Boa Vista mine, and is expected to be modified to process ore from Mina II starting in 2019. Ore undergoes crushing, scalping, homogenization and grinding before reaching the concentration stage, where desliming, silica flotation, carbonate flotation, magnetic separation and niobium flotation are performed. Acid leaching and alkaline leaching are used to reduce phosphates content.

Tailings Plant

The Tailings Plant is expected to have processing capacity of 1.1Mtpa ore and production capacity of 2.3ktpa pure Nb_2O_5 with concentrate grade of 44%. The apatite flotation tailing from phosphates plants is used as feeds, which then undergoes classification, magnetic separation, grinding, desliming, silica flotation, niobium flotation at the Tailings Plant. Pyrochrore concentrate is produced and sent to a leaching step located in the BV plant.

Calcining and Metallurgy

The leaching products from all the three plants (BV, BVFR and Tailings) come together and are sent to the calcining stage. The main objective of calcination is to remove the crystalized water associated with some minerals and drying the concentrate for pyrometallurgy.

At the pyrometallurgy stage, the product of calcination undergoes aluminothermic reactions. The final concentrate is mixed with fine aluminium and other inputs, then discharged into the crucible, which is then lit and the reaction occurs. After the reaction, the crucible is transferred to the slag tapping area, then the cooling area, and the alloy button is removed.

The resulting FeNb alloy moves to the alloy crushing stage, composed of jaw crushers and screeners for classification of the material according to particle size, which will be packed in line with client specifications.

Debottlenecking Downstream Project

The 2016 debottlenecking project is now in ramp-up and will increase the metallurgy downstream capacity from 6.8 to 9.0 ktpa. This increase will be the result of a new filtering and calcining circuit being implemented as well as the revamp of the pyrometallurgy unit.

The debottlenecking project started with a capital expenditure of USD15 million.

Tailings Dams

Four existing adjacent Tailings Storage Facilities ("**TSF**"): 1A, 1B, 2A, and 2B support the niobium production. Currently TSF 1A and 1B are full and inactive with TSF 2A has just been raised and operational; and, TSF 2B is currently being raised.

Royalties

In October 2000, Anglo purchased from an independent third party the remaining 30% minority stake in the Niobium Business for a nominal fee plus a 4.5% of all future sales of niobium product and by-products at the Catalão plant. Such royalties only arise for ore extracted from MCG-01, including the material obtained through the tailings plant, and BVFR.

CFEM ("**Compensação Financeira pela Exploração de Recursos Minerais**") is a government mining royalty. For the Niobium Business, CFEM is calculated as 2% of the cost of extraction incurred up to the stage when the industrial process begins.

Product overview

The Niobium Business produces a single ferroniobium product at 65% Nb concentration, which is the form generally traded in the world market representing over 90% of niobium production, according to the Roskill Report. The Niobium Business offers a range of specifications in element mix, product sizes and packaging to meet customer needs. Product size includes FeNb Fines (0–2mm, 1–5mm and 3–15mm) and FeNb Lump (5–30mm, 10–30mm, 5–50mm, 10–50mm and 6–20mm). Packaging varies from 10lb cans to 250kg steel drums to 4,000lb big bags.

Sales & marketing

Through the Niobium Sales Function, AAML is responsible for the sales and marketing operations of AANB's ferroniobium products. The end application sectors of the niobium product are the construction sector, automobile industry and the oil industry, and the targets of niobium product sales are sold mostly to steel mills which supply steel products for these respective sectors. Accordingly, AAML established a marketing strategy based on direct sales to end clients. Located in London and Singapore, the niobium sales team has rich experience in the industry and has been selling niobium products directly to customers in Europe, Asia and North America. The first-hand customer dialogue and relationship underpins the Niobium Business' deep understanding of customer needs and ability to consolidate and expand the customer base. The transition to direct marketing offers a number of advantages, including higher realized pricing and lower volume risk. Going forward, a number of strategies are expected to be implemented to further strengthen the marketing function, including domestic sales in RMB in China, leveraging customer portfolio for other products and increasing technology and product development support for customers. The Company intends to replicate this structure by having CMOC UK acquire the Niobium Sales Function from AAML.

Capital expenditure

Projected capital expenditure between 2016 and 2019 involves both "stay-in business" capital expenditure and "business improvement" capital expenditure. The business improvement capital expenditure are primarily related to scalping ramp-up, debottlenecking metallurgy project and BV plant adaptations. After 2019, capital expenditure will principally be "stay-in business" and sustaining as opposed to expansionary. This capital requirement is related primarily to maintenance of the mining and processing equipment, replacement of capital goods resulting from wear and tear, ensuring that operations meet a high safety standard and comply with regulations, and certain activities related to environmental compliance. Following Completion, it is intended that the above-mentioned projected capital expenditure will be financed by the existing financial resources of the Group.

Working capital

As the Niobium Business is switching its sales strategy from distributor sales model to direct sales model to end customers, together with the BVFR ramp-up, this has led to an increase of inventory build-up. Given the Niobium Business is less cyclical, the creditor and debtor days are expected to remain stable throughout the LOM plan.

Employees and Contractors

As of June 2015, there were approximately 543 direct employees and approximately 1,004 contractors in the Niobium Business (excluding AAML, corporate employees and other employees whose headcount is within the Phosphates Business or another Anglo entity). The Company expects that the Niobium Business will require approximately 600 full-time equivalent employees in 2016 on a standalone basis.

Health, safety and environment

The Niobium Business is equipped with an integrated health, safety and environmental management system in alignment with international best practices and ensuring compliance to Brazilian standards. Environmental Management System (ISO 14000 certification) is implemented and certified in all operations.

Main licenses held by the Niobium and the Phosphates Businesses

Parties involved in the Proposed Transaction have made the following undertakings in the Sale and Purchase Agreement: all regulatory licenses, consents, concessions, mining rights and permits material to the operations of the Niobium and Phosphates Businesses at the date of the Sale and Purchase Agreement shall be held by (as relevant) AANB, AAFB or AAML (regarding the Niobium Sales Function) as the named beneficiaries, shall be in full force and effect, and have and are being complied in all material respects. AANB, AAFB or AAML (regarding the Niobium Sales Function) has not received any notification regarding the termination or revocation (including termination or revocation owing to change in control of AANB or AAFB) of such regulatory licenses, consents, concessions, mineral rights or permits prior to the date of the Sale and Purchase Agreement.

AANB and AAFB have obtained main permits and licenses regarding its respective productions and operations. Details of such main permits and licenses are set out in Appendix D of the Competent Person's Report.

The relevant mining and exploration licenses and authorizations held by AAFB are as follows:

Number	**No. of Ministry of Mines in Brazil** *(DNPMID)*	**Covering** *(hectare)*	**License type**	**Issuance Date of Licenses**	**Expire Date of Licenses**
1	801.560/68	166.76	Mine Concession	27 January 1984	Same as life of mine
2	804.513/68	40.94	Mine Concession	6 May 2004	Same as life of mine
3	860.119/14	1,035.40	Exploration License	26 February 2015	26 February 2017
4	861.103/13	1,704.22	Exploration License	3 September 2015	3 September 2017
5	861.210/13	852.45	Exploration License	3 September 2015	3 September 2017
6	861.211/13	1,100.70	Exploration License	3 September 2015	3 September 2017
7	861.212/13	768.67	Exploration License	3 September 2015	3 September 2017
8	861.379/13	1,950.53	Exploration License	3 September 2015	3 September 2017
9	861.380/13	1,000.85	Exploration License	3 September 2015	3 September 2017

Number	No. of Ministry of Mines in Brazil *(DNPMID)*	Covering *(hectare)*	License type	Issuance Date of Licenses	Expire Date of Licenses
10	861.461/15	1,964.07	Exploration License	21 January 2016	21 January 2019
11	860.402/01	455.91	Mine Concession Application	6 September 2004	–
12	860.897/12	1,996.90	Application Claim – Auction	–	–
13	860.898/12	1,958.31	Application Claim – Auction	–	–
14	861.078/12	1,422.01	Exploration License	26 February 2015	26 February 2018
15	861.079/12	1,446.72	Exploration License	26 February 2015	26 February 2018
16	861.080/12	1,447.46	Exploration License	26 February 2015	26 February 2018
17	860.841/14	1,135.55	Exploration License	26 February 2015	26 February 2018
18	860.226/12	1,996.07	Exploration License	26 February 2015	26 February 2018
19	860.227/12	1,995.05	Exploration License	26 February 2015	26 February 2018
20	860.228/12	1,995.29	Exploration License	26 February 2015	26 February 2018
21	860.229/12	1,994.45	Exploration License	26 February 2015	26 February 2018
22	860.231/12	1,993.08	Exploration License	26 February 2015	26 February 2018
23	860.232/12	1,998.56	Exploration License	26 February 2015	26 February 2018
24	860.246/12	1,996.05	Exploration License	26 February 2015	26 February 2018
25	862.934/11	2,000.00	Exploration License	26 February 2015	26 February 2018
26	860.205/15	2,000.00	Exploration License	28 August 2015	28 August 2018
27	860.140/13	257.86	Exploration License	2 May 2016	2 May 2019

The mining and exploration licenses held by AANB are as follows:

Number	No. of Ministry of Mines in Brazil *(DNPM ID)*	Covering *(hectare)*	Types of Licenses	Issuance Date of Licenses	Expire Date of Licenses
1	861.629/13	810.84	Mineral Exploration License	3 September 2015	3 September 2017
2	860.351/2003	726.08	Mine Concession Application	15 February 2013	–
3	803.343/73	980.00	Mine Concession	10 November 1983	Same as life of mine
4	801.244/68	381.71	Mine Concession	2 January 1975	Same as life of mine

Note 1: The mining permits will remain valid until reserves in the mining areas are depleted (subject to compliance with law and regulation).

Note 2: Exploration permits are usually valid for 1–3 years. If extension is needed, AANB shall submit extension application to DNPM no later than 60 days prior to the expiry date (although the permits can only be extended once, and for the same time period as the original grant, at the discretion of DNPM).

As of the Latest Practicable Date hereof, AAFB and AANB are the registered owners of the mineral rights and licenses listed and described above. There are no limitations to the rights arising from the mineral rights. The mineral rights subject to DNPM Processes Nos. 861.079/2009 and 860.710/2009 are currently represented by final exploration reports submitted to DNPM. The approval of an exploration report depends on its content which is of a technical nature. Any such approval is done at the discretion of the DNPM and, if such approval is denied, it has to be justified by the DNPM.

The following exploration licences will be transferred to AAFB:

Number	No. of Ministry of Mines in Brazil *(DNPMID)*	Covering *(hectare)*	Status	Issuance Date of Licenses	Expire Date of Licenses
1	860.710/09	2,000.01	Final Exploration Report pending DNPM review	11 November 2015	–
2	861.079/09	2,000.00	Final Exploration Report pending DNPM review	11 November 2015	–
3	831.542/15	1,942.11	Mineral Exploration License	8 August 2016	–
4	831.543/15	1,945.48	Mineral Exploration License	8 August 2016	–
5	831.544/15	1,947.78	Application for Mineral Exploration License	–	–
6	831.545/15	1,942.38	Mineral Exploration License	8 August 2016	–

The above are the mineral rights that are held by as of the date hereof Anglo American Níquel do Brasil Limitada and that are in process of, or will be, transferred to AAFB.

THE PHOSPHATES BUSINESS

Introduction

The Phosphates Business consists of the Chapadão mine, the Ouvidor beneficiation plant, the Catalão and Cubatão chemical plants, and the Coqueiros and Morro Preto deposits.

Production of phosphate fertilizers started in 1984. Currently, 6Mt of ore is produced annually, making the Phosphates Business the second largest integrated phosphate fertilizer producer in Brazil.

The following table sets out the Proved and Probable JORC Ore Reserves estimate for the Phosphates Business as at 30 June 2016, under the 2012 JORC Code:

Description	**Quantity** *(kt)*	**P_2O_5** *%*	**P_2O_5** *(t)*	**Nb_2O_5** *%*	**Nb_2O_5** *(Metal t)*
Phosphate Ore					
Proved	56,273	13.19	7,625,243	0.45	257,090
Probable	152,664	12.01	18,330,094	0.29	440,871
Sub Total	208,937	12.33	25,955,337	0.33	697,961
LG Stockpile (P&P)					
Phosphate Ore	9,668	10.22	988,333	0.23	22,685

The following table sets out the statement of Mineral Resources estimates for the phosphates business as at 30 June 2016, inclusive of Mineral Reserves under the 2012 JORC Code:

Complex	**Project**	**Material Type**	**Cutoff** *(%)*	**Category**	**Tonnes** *(MT)*	**P_2O_5** *(%)*
Catalão I	Chapadão	Oxide OP	6	Measured	75.3	13.2
				Indicated	226.5	11.9
				Inferred	65.1	9.9
				Sub-Total	366.8	11.8

1. Tonnages are metric tonnes reported on a dry basis.

2. Figures reported are rounded which may result in small tabulation errors. Mineral Resources and Ore Reserves have been estimated under the 2012 Edition of the JORC Code.

The Statement of Ore Reserves and Mineral Resource need to be read in conjunction with the Competent Person's Report in Appendix V, which contains the required disclosure in accordance with JORC Code and Chapter 18 of the Listing Rules.

Business Process Overview

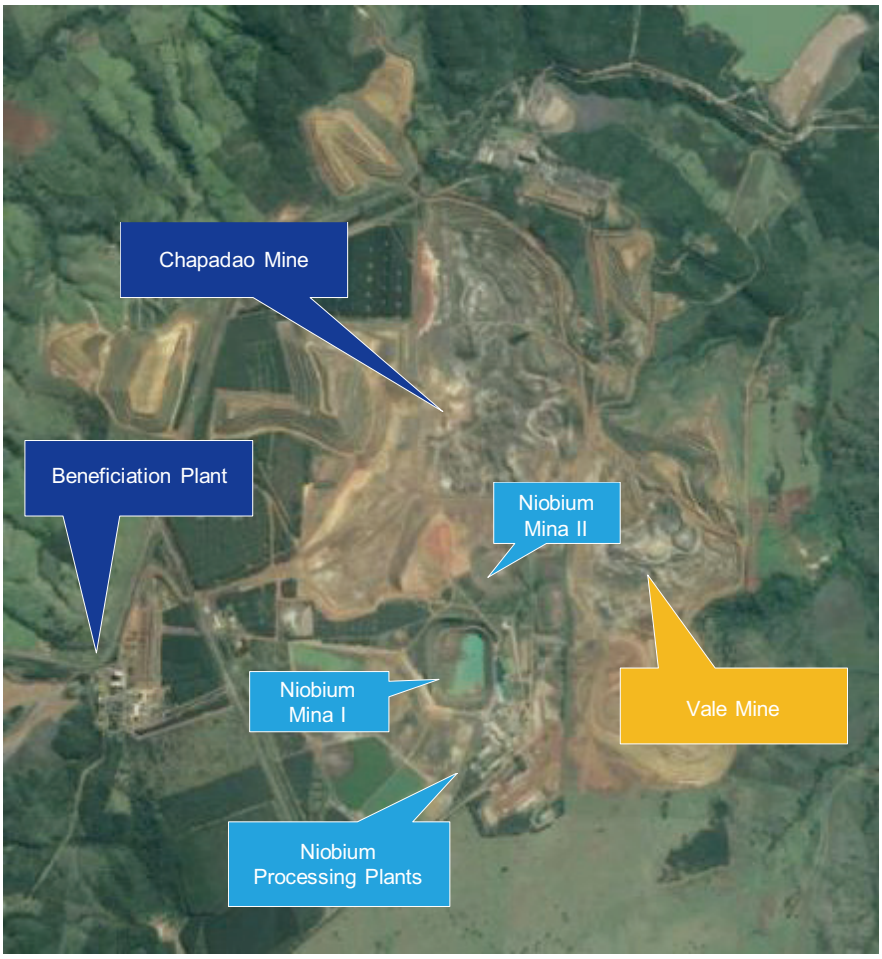
Mining Operations: Chapadão

The Chapadão mine is located in the Catalão I complex, at Ouvidor. The complex has a diameter of approximately 6km and hosts an open pit mine with dimensions of 1.9km x 1.7km x 90m and a Reserve life of 46 years. Annual material movement is between 15–17Mt. Ore mined at Chapadão is taken to the Ouvidor beneficiation plant. Below is an aerial view of the open pit mine at the Catalão I complex:

Beneficiation: Ouvidor

The key beneficiation production processes are crushing, milling, and flotation. The beneficiation process increases P_2O_5 grade in the ore from 13% to 37%. The resulting phosphate concentrate is shipped to the Catalão processing plant. The process also yields barite as a by-product. The niobium tailings are supplied to the Tailings Plant for processing by the Niobium Business.

Below is a map of the Chapadão mine, the beneficiation plant, the Niobium Business mines, the niobium processing plants as well as a nearby phosphate mine owned and operated by Vale Fertilizantes S/A:



The beneficiation facility has access to two dams, for tailings and water storage:

- The Buraco dam is a tailing and water storage dam built in 1978, with a current elevation of 855m; and

- The Macaubas dam serves as the water storage for the phosphates beneficiation plant; it has a current elevation of 817m and a storage capacity of 2mm^3 of water.

Processing: Catalão

Catalão is a processing plant located on the state of Goiás and produces "high analysis" fertilizers (MAP, GTSP), low analysis fertilizers (SSG, 03-17), animal feed (DCP powder), and by-products (gypsum, fluorosilicic acid). The Catalão plant receives concentrate from the beneficiation plant through a pipeline. The concentrate is then separated in the filtration plant into fine and coarse concentrates. The entire volume of fine concentrate is used in the Catalão plant, while a part of the coarse concentrate is shipped to the Cubatão plant.

Other raw materials used as inputs for production are received by railroad and by trucks. Sulphuric acid is brought from the Cubatão plant, sulphur is imported, and ammonia is sourced from the local market. Major by-products (gypsum, cake, fluosilicic acid) are sold off; as a benefit, they reduce net operating costs.

The Catalão plant consists of five different production units: a sulphuric acid plant, a phosphoric acid plant, an acidulation plant, a fertilizer granulation plant, and a DCP plant:

- The sulphuric acid plant is a sulphur burning plant with a nominal production capacity of 542ktpa of sulphuric acid. The cogeneration plant can produce 10MW of electricity using the steam from the sulphuric acid plant, which is reused by the plant.

- The phosphoric acid plant has a nominal production capacity of 172ktpa, consumed at the fertilizer granulation and DCP plants.

- The acidulation plant consists of one SSP plant and one TSP plant. The acidulation plant has a total production capacity of 608ktpa, which can be adjusted for different proportions of SSP and TSP.

- The fertilizer granulation plants consist of three granulation units with an 823ktpa capacity for the fertilizer types SSG, 03-17, MAP, and GTSP.

- The DCP plant mixes phosphoric acid and lime to form DCP in pug mill reactors.

The below table sets out the production capacity and production volumes for the years ended 31 December 2014 and 2015 for Catalão products:

Catalão Products and Plant Capacities

Process	Plant	Output	Nominal Production Capacity[1] *(ktpa)*	2014 Production Volumes[1] *(ktpa)*	2015 Production Volumes[1] *(ktpa)*
Filtration	Filtration plant	Concentrate Filtered	1,406	1,415	1,341
	Drying plant	Coarse Concentrate Dried	768	621	560
Acidulation	Plant 80 (cap. 346), 69	SSP (LA)	–	435	442
	Plant 69 (cap. 262)	TSP (HA)	–	12	1,112
		Total Acidulation[2]	608	556	554
Granulation (Fertilizer)	Plants 68 (cap. 288)	03-17 (LA)	–	232	108
	Plants 67, 68, 80	SSG (LA)	–	323	468
	Plants 67 (cap. 343)	MAP (HA)	–	129	124
	Plants 80 (cap. 192)	GTSP (HA)	–	55	49
		Total Granulation[3]	823	739	749
Low Analysis		LA Total	–	555	576
High Analysis		HA Total	–	184	173
Sulphuric Acid		Sulphuric Acid	542	530	501
Phosphoric Acid		Phosphoric Acid	172	164	160
DCP		DCP	110	98	98

1. Production volumes are flexible and are adjusted to reflect to the anticipated sales mix. Capacities are based on P75 capacities. LA = Low Analysis. HA = High Analysis.

2. The acidulation and acids facilities produce only intermediate products which are inputs to produce granulated fertilizers.

3. Granulation capacity is highly dependent on the type of product being produced.

Processing: Cubatão

Cubatão is a processing plant located in the state of São Paulo and produces low analysis fertilizers (SSG, 03-17, 02-18+ micro, and SSP powder), animal feed (DCP), sulphuric acid, phosphoric acid, and the by-products of gypsum and fluorosilicic acid. Cubatão receives dry phosphate concentrate from the Catalão plant by railroad. Sulphur is imported and used for the production of sulphuric acid, of which a portion is supplied to the Catalão plant. Most phosphoric acid is consumed internally with excess production sold.

The Cubatão plant consists of five production units: the sulphuric acid plants, the phosphoric acid plant, the acidulation plant, the fertilizer granulation plant, and the DCP plant:

- The two sulphuric acid plants have a combined nominal capacity of 656ktpa. In contrast with the Catalão plant, there is no electricity cogeneration at Cubatão.

- The phosphoric acid plant has a production capacity of 146ktpa. The phosphoric acid goes through robust purification phase in order to meet commercial standards.

- The acidulation plant consists of one SSP plant with nominal production capacity of 392ktpa.

- The fertilizer granulation plant has a total nominal production capacity of 290ktpa for fertilization products 00-21, 03-17, and 02-18+.

- The DCP plant has production capacity of 73ktpa. The DCP product is microgranulated.

The below table sets out the production capacity and production volumes for the years ended 31 December 2014 and 2015 for Cubatão products:

Cubatão Products and Plant Capacities

Process	Output	Nominal Production Capacity[1] *(ktpa)*	2014 Production Volumes[1] *(ktpa)*	2015 Production Volumes[1] *(ktpa)*
Acidulation	SSP	392	357	353
	Total Acidulation[2]	392	357	353
Granulation (Fertilizer)	03-17 (LA)	–	61	42
	SSG (LA)	–	182	182
	02-18 (LA)	–	20	28
	Total Granulation[3]	290	263	252
Low Analysis	LA Total	–	263	252
Sulphuric Acid	Sulphuric Acid	656	566	506
Phosphoric Acid	Phosphoric Acid	146	131	105
DCP	DCP	73	66	49

1. Production volumes are flexible and are adjusted to reflect to the anticipated sales mix. Capacities are based on P75 capacities. LA = Low Analysis. HA = High Analysis.

2. The acidulation and acids facilities produce only intermediate products which are used as inputs to produce granulated fertilizers and sold (phosphoric acid).

3. Granulation capacity is highly dependent on the type of product being produced.

Projects

The Phosphates Business has a valuable range of growth options, including opportunities to increase the scale of the business as well as to increase the production mix flexibility between "low analysis" and "high analysis" fertilisers. These growth options include:

(i) Optimizing use of existing ore body via opportunities that range from the potential installation of additional acid production capacity all the way to capacity expansion of the entire processing facility (concentration and chemical plants); and

(ii) Greenfield expansion opportunities via currently held deposits.

Selling, Marketing and Strategy

The Phosphates Business has longstanding relationships with major customers and sells all of its products to regional blenders. In addition, sulphuric and phosphoric acid are sold to industrial customers from the site in Cubatão. The top customers for the fertilizer, DCP and acids segments have significant experience dealing with phosphates, with no single customer accounting for a relevant portion of sales by revenue. The Phosphates Business' distribution strategy allows for cost savings in marketing and sales.

Capital Expenditure

Projected capital expenditure in the Phosphate Business is principally "stay-in-business" and sustaining as opposed to expansionary. This capital requirement is related primarily to maintenance of the mining and processing equipment, replacement of capital goods resulting from wear and tear, ensuring that operations meet a high safety standard and comply with regulations, and certain activities related to environmental compliance. Following Completion, it is intended that the above-mentioned projected capital expenditure will be financed by existing financial resources of the Group.

Working Capital

Cyclicality in the Phosphate Business leads to higher inventory build-up and receivables during the first half of the year. Market conditions are seasonally weaker towards the end of each year and into the first quarter of the following year. This typically results in longer payment terms in this period each year. Net working capital changes in the past were primarily driven by challenging market conditions leading to increased debtor levels and a reduction in payment terms for a small number of suppliers.

INTERDEPENDENCY BETWEEN THE NIOBIUM AND PHOSPHATES BUSINESSES

The Niobium and Phosphates Businesses are highly integrated operations. Joint mine planning is undertaken in order to optimize LOM plans. The Tailings Plant processes niobium rich tailings from the Phosphates plant, which otherwise would be considered waste. For that purpose, Phosphates mining and mine planning is designed to accommodate supply of niobium rich tailings to Niobium Business. The two segments also utilize a shared infrastructure, including electricity, diesel and water supply. Niobium and Phosphates operations have agreements in place with regard to some of the overlaps of their respective operations on each other's land and mineral rights. Waste dumps and tailings dams are located across land with different ownership.

OTHER INFORMATION

The Competent Person has confirmed that no material change has occurred since the effective date of the Competent Person's Report.

As at the Latest Practicable Date, the Company was not aware of any legal claims or proceedings which may affect the mining rights being acquired. More specifically, as at the Latest Practicable Date:

1. Project risks arising from environmental, social, and health and safety issues

As at the Latest Practicable Date, so far as the Company was aware, the Vendors have not received written notice and are not aware of any circumstances that would on reasonable grounds be expected to give rise to, any civil, criminal or administrative action, or other proceeding or suit under any environmental law applicable to the Niobium and Phosphates Businesses, which is or may be materially prejudicial to the current financial positions of the Niobium and Phosphates Businesses.

2. Non-governmental organisation impact on sustainability of mineral and/or exploration projects

As at the Latest Practicable Date and so far as the Company was aware, each of the mining tenements held by AANB and AAFB are in force and effect and the Vendors have not received any notice of default or current claim of expropriation or forfeiture in respect of such mining tenements.

3. Compliance with host country laws, regulations and permits, and payments made to host country governments in respect of tax, royalties and other significant payments on a country by country basis

As at the Latest Practicable Date and so far as the Company was aware:

(i) there is no material unremedied breach of the licences disclosed in the Sale and Purchase Agreement;

(ii) the Vendors have not done or permitted to be done anything that would be likely to cause the licences disclosed in the Sale and Purchase Agreement; to be suspended, revoked, materially varied or terminated; and

(iii) no party in respect of the licences disclosed in the Sale and Purchase Agreement has given written notice to the Vendors of any matter that would be likely to cause such licences to be suspended, revoked, materially varied or terminated.

4. Sufficient funding plans for remediation, rehabilitation and, closure and removal of facilities in a sustainable manner

The Vendors are obliged to conduct the operations in respect of the Niobium and Phosphates Businesses in the ordinary and usual course. It must also maintain the tenements and licences held by AANB and AAFB in good standing prior to the Completion.

5. Environmental liabilities of its projects or properties

As at the Latest Practicable Date and so far as the Company was aware:

a. The Niobium and Phosphates Businesses are in general compliance with the local environmental regulations; and

b. The Niobium and Phosphates Businesses and their respective management teams are undertaking all key environment management activities and have responded to compliance matters in consultation with regulatory authorities.

6. Its historical experience of dealing with concerns of local governments and communities on the sites of its mines, exploration properties, and relevant management arrangements

Given the Company will retain the existing management team at the Niobium and Phosphates Businesses and intends to maintain the Vendors' existing processes in relation to safety, health, environment and community engagement, the Company expects to deal with governments and the local communities in substantially the same manner as the Vendors have historically.

7. Any claims that may exist over the land on which exploration or mining activity is being carried out, including any ancestral or native claims

As at the Latest Practicable Date, the Company was not aware of any material litigation, prosecution, mediation, arbitration or other proceeding in respect of the Niobium and Phosphates Businesses. In addition, so far as the Company was aware, the Vendors have not at the Latest Practicable Date received any written (i) notice or claim threatening the commencement of any material litigation, prosecution, mediation, arbitration or other proceeding in respect of the Niobium and Phosphates Businesses, and (ii) notice advising it that it has failed to comply in any material respect with any law in connection with the Niobium and Phosphates Businesses which would have a material adverse effect on the values of the Niobium and Phosphates Businesses.

You should carefully consider all of the information set out in this circular, including the risks and uncertainties described below associated with the Proposed Transaction and the Niobium and Phosphates Businesses and the industry in which it operates before making a decision on how to vote on the resolutions relating to the Proposed Transaction at the EGM. The business, financial conditions and results of operations of the Group, the Niobium and Phosphates Businesses and the Enlarged Group could be materially and adversely affected by any of these risks.

To the best of the Directors' knowledge, the Directors consider the following risks to be the most significant in respect of the assets and operations of the Niobium and Phosphates Businesses for the Shareholders and potential investors of the Company. However, the risks listed below do not purport to comprise all those risks associated with the Proposed Transaction, the Group, the Niobium and Phosphates Businesses and the Enlarged Group and are not set out in any particular order of priority. Additional risks and uncertainties not currently known to the Directors may also have an adverse effect on the Proposed Transaction, the Group, the Niobium and Phosphates Businesses and the Enlarged Group. If any of the following risks actually occurs, the Proposed Transaction, the Group, the Niobium and Phosphates Businesses' and the Enlarged Group's operations, financial condition, capital resources, results and/or future operations could be materially and adversely affected.

RISKS ASSOCIATED WITH THE PROPOSED TRANSACTION AND THE ENLARGED GROUP

1. Risks relating to making an acquisition and potential future acquisitions or investments in other companies or assets

Any acquisition involves potential risks, including, among other things: (i) mistaken assumptions about mineral properties, mineral resources and costs; (ii) an inability to successfully integrate any operation the Enlarged Group acquires; (iii) an inability to hire and retain qualified personnel to manage and operate the operations acquired; (iv) the assumption of unknown liabilities; (v) limitations on rights to indemnity from the seller; (vi) mistaken assumptions about the overall cost of equity or debt; and (vii) unforeseen difficulties operating acquired projects in new geographic areas.

Any large acquisitions may require cash expenditures from the Enlarged Group, resulting in the Enlarged Group's restriction from the use of these funds in other business purposes.

Any integration of acquired operations may disrupt the Enlarged Group's business by diverting management and employee's attention away from day-to-day operations. The Enlarged Group may face integration challenges, particularly taking into account the different geographic locations, from a personnel, risk management and internal control systems perspective.

The Enlarged Group may seek to further expand its business through acquisitions as it continues to consider and evaluate opportunities for future growth. However, there is no assurance that the Enlarged Group will be able to find or acquire attractive acquisition candidates in the future. Any future acquisition will also be subject to the aforementioned risks.

The occurrence of any of the above could have a material adverse effect on the Enlarged Group's business, financial condition, results of operations or prospects. Consequently, the Enlarged Group would not be in a position to assure the timing and amount of any return or benefits that may be received as a result of the Proposed Transaction.

2. Risks relating to making acquisitions of niobium and phosphates projects

The Company does not currently own or operate any niobium or phosphates mines. Accordingly, the acquisitions of niobium and phosphates businesses may be outside the Company's current area of expertise, and may present a risk that the Company (through its Group) is not able to effectively manage the Niobium and Phosphates Businesses to achieve an appropriate financial return.

3. Risks relating to completion of the Proposed Transaction

A number of the conditions precedent to Completion as set out in the paragraph headed "Conditions Precedent" in the section headed "Letter from the Board" of this circular involves the decision of third parties, including approvals by the Shareholders at the EGM, and certain governmental and regulatory approvals in the PRC in connection with the transactions contemplated by the Sale and Purchase Agreement. As satisfaction of such conditions precedent is not wholly within the control of the parties involved in the Proposed Transaction, hence there is no assurance that the Proposed Transaction will be completed as contemplated.

4. Risks relating to operations in a foreign country

The Enlarged Group has major operations in China, Australia and Brazil and is therefore exposed to various levels of political, economic and other risks and uncertainties.

Such risks and uncertainties vary from country to country and include, but are not limited to, terrorism, regime change, political repression, social uprisings, fluctuation in currency exchange rates, changes to licensing regimes and amendments to concessions, licenses, permits and contracts, and changing political conditions and governmental regulations.

Any change in any mining or investment policies or shifts in political attitudes in the countries in which the Enlarged Group operates may adversely affect its operations and profitability.

RISKS ASSOCIATED WITH THE NIOBIUM AND PHOSPHATES BUSINESSES

5. Risks relating to operation of the mines

The Niobium and Phosphates Businesses involve certain risks and hazards, including environmental pollution, accidents or spills, industrial and transportation accidents, unexpected labor shortages and compensatory claims, disputes or strikes, cost increases for contracted and/or purchased goods and services, shortages of required materials and supplies, electrical power interruptions, mechanical and electrical equipment failure, changes in the regulatory environment, and natural phenomena such as inclement weather conditions, floods and earthquakes, encountering unusual or unexpected climatic conditions which may or may not result from global warming, and encountering unusual or unexpected geological conditions. Additionally, the loss or damage to critical equipment may or may not be covered by insurance depending on the cause of the loss or damage. The occurrence of any of these hazards can delay or interrupt production, increase production costs and result in liabilities for the Niobium and Phosphates Businesses.

6. Risks relating to open pit mining operations and to potential underground mining in future

The Niobium Business is an open-pit mining operation. Open-pit mining is a surface mining technique of extracting minerals from the earth by their removal from an open pit. Due to the nature of this particular mining technique, such as the inability to use the maximum power of explosives for rock breakage and the requisite skill labors need to possess, open-pit mining may have limited productivity and high labor costs, which may further impact production and profitability. Moreover, the operation may be constrained by pit depth, as a result of the inability or inflexibility to change the mining plan at depth. Additionally, tailings produced through open-pit mining may be toxic and radioactive, causing further potential environmental issues.

In addition to open-pit mining, the Niobium mining operation has potential for underground mining in the future. Underground mining may induce tunnel collapses and land subsidence, and, given the involvement of large-scale movements of waste rock and vegetation throughout underground mining processes, it may release toxic compounds into the air and water.

7. Risks relating to capital expenditure programs

The ongoing operations of the niobium and phosphate mines will require capital investment, in order to develop new projects and maintain existing projects. There is an inherent risk that the capital costs associated with either development of new projects or stay in business capital expenditure will be higher than forecasted, which may have an adverse impact on the financial performance of the Niobium and Phosphates Businesses.

For example, changes in the Brazilian mining code may increase the necessity of capital expenditure for closure and impact on future profitability of the Niobium and Phosphates Businesses by changing the amount of royalties charged. As of the date hereof, it is unclear when the new mining code will be approved by Brazilian government and the impact in the business going forward.

In addition, the current approved strategy of the Niobium Business involves BVFR plant ramp-up debottlenecking metallurgy ramp-up, and optimization of BV plant, all of which aim to create value and to deliver on investments. There is a risk that the aforementioned strategies may not be implemented as planned and therefore the production prospect may be undermined.

8. Risks relating to mine scheduling and infrastructure availability

The Phosphates Business is currently supported by one mine, Chapadão, which feeds the beneficiation plant at Ouvidor. In the event that any adverse circumstance would stop or delay the mining operations at Chapadão, the downstream operations at Ouvidor, Catalão, and Cubatão would be affected as well, which may subsequently materially affect financial results.

The Niobium Business is currently supported by one mine, Boa Vista, which is expected to commence production of fresh ore rock at Mina II deposit in 2019. Both mines feed the crushing/scalping/concentration facilities at BVFR and BV plants. There is a risk that in the event that the mining operations at Boa Vista delay or do not perform as forecasted, the business and its financials would be hampered. There is also a risk that in the event that the fresh rock ore production at Mina II does not commence as planned, the Niobium Business would be negatively impacted as well.

9. Risks relating to title and concessions and the inability to obtain, retain or renew concessions, permits or licences

The Niobium and Phosphates Businesses are required to operate under concessions from the Brazilian government, and to seek and renew permits, licenses, and authorizations in relation to its future and ongoing operations. While mining concessions in Brazil are not subject to conditions above those imposed by law and are valid for the entire life of the mine, obtaining and maintaining other permits or licenses, including environmental licenses and exploration permits, can be a complex and time-consuming process and may involve substantial costs or the imposition of unfavourable conditions. There may be delay in obtaining the necessary permits and other authorisations and, in certain cases, the relevant government agency may be unable to issue a permit or other authorization which is required in a timely manner.

There is no assurance that the Niobium and Phosphates Businesses will be able to obtain any renewals, extensions or approvals or that current and future licenses and permits will not be revoked or withdrawn. Failure to obtain and maintain these forms of authorization from the corresponding regulatory agencies will directly impact the Niobium and Phosphates Businesses' abilities to produce satisfactory operational and financial results.

In addition, changes to the current mining legislation in place in Brazil could have direct impact over the Niobium and Phosphates Business, as it dictates rules for exploration rights, establishment of regulatory agencies, and royalties charged. Changes in the regulatory framework could impact the Niobium and Phosphates Business' abilities to comply with the laws that regulate their operations, therefore negatively affecting their operational and financial results.

10. Risks relating to changes in the estimates of the mineral resources and reserves of the Niobium and Phosphates Businesses

The Niobium and Phosphates Businesses' mineral resource and mineral reserve estimates set out in this circular and the Competent Person's Report are compliant with the JORC Code. However, there is no absolute certainty of realization of reserves or mineral resources, as the estimation process involves interpretation, and is dependent on quantity and quality of data.

The inaccuracy of estimates of mineral resources and reserves could result in an adverse effect on the ability of the Niobium and Phosphates Businesses to achieve expected operational and financial results, as actual deposits, or the economical profitability of mining those deposits, could differ substantially in reality from initial projections.

11. Risks relating to the volatility of agricultural commodity prices and fertilizer prices for the Phosphates Business

A large majority of the Phosphates Business consists of the sale of final phosphate products to be used in agriculture. With a growing world population and economic growth, along with current changes in dietary patterns driving overall demand for food and fertilizer, changes in agricultural prices could impact the demand for phosphate usage, and directly impact operations due to a reduction in phosphate prices and a reduction in sales volumes. Other economic factors such as interest rates, exchange rates, inflation or deflation could also have an impact in the prices of phosphate products.

Likewise, any changes in global and local fertilizer production capacity could significantly impact the operations by changing the supply and demand balance, which will have an effect in phosphate prices and therefore impact financial results.

In addition, changes in environmental conditions directly impact agricultural producers, and therefore, the market for phosphate products and other fertilizers. A negative impact of climate change in demand for fertilizers could significantly impact the profitability of the Phosphates Business.

12. Risks relating to the volatility of the global steel industry for the Niobium Business

The growth in global niobium industry is supported by the increasing global production of steel, particularly by the growing demand for higher-grade steels. High-grade steels are produced usually with ferroniobium added for the purpose of improving steel performance, such as toughness, strength, formability, and weldability, and are the end application of ferroniobium. The Niobium Business is therefore largely dependent on the outlook of the steel industry.

Accordingly, there is a risk that, as China dominates the consumption of ferroniobium, a weakening, slowing outlook of the Chinese economy may adversely impact the steel industry and further the Niobium Business' performance and its financial condition.

13. Risks relating to substitution of niobium with vanadium

Although niobium and vanadium are often used together in steelmaking, the closest substitute for niobium is vanadium. The Roskill Report estimates that about 5% of the steel made using ferroniobium could be made with ferrovanadium as a substitute. In other applications, such as high-pressure pipeline steels, ferrovanadium cannot substitute for the performance qualities of ferroniobium. Should vanadium substitution occur on a large scale, there is a risk that certain steel applications would not require niobium input, which could adversely impact niobium industry demand and the Niobium Business' performance and financial conditions.

According to the Roskill Report, there are a number of drawbacks to vanadium's uses, such as market price volatility and high substitution ratio. Vanadium prices have historically been more volatile. In 2003 to 2008, according to the Roskill Report, steelmakers elected to switch from vanadium to niobium due to a sharp price increase in vanadium. Although both vanadium and niobium are used as strengthening alloys in steel, according to the Roskill Report, generally, additions of niobium provide a larger increase in yield strength than similar percentage additions of vanadium. Average vanadium to niobium substitution ratio is approximately 2.7 times, representing a higher volume of vanadium required to match similar effects resulting from a lesser volume of niobium. Vanadium provides good yield strength but poor impact properties, and therefore tend to be used more frequently in thicker steel products. As such, according to the Roskill Report, competition from vanadium substitution is common in a limited subset of niobium-containing steel application, primarily structural sections and reinforcing bars, thicker HSLA steel linepipes, and rail steel. Furthermore, Roskill is of the view that given the effort required by steelmakers to implement a change from niobium to vanadium (technical adjustments to steel production methods to meet

specifications), substitution decisions are less likely to be driven by short-term changes in market prices, and the risk of a large scale substitution is expected to be low.

14. Risks relating to the sales of additional niobium volumes

The end application of niobium is predominantly steel-making. As there is no indication of a significant increase in steel demand, additional niobium volumes may become excessive, hence resulting in the inability of sales of such additional niobium volumes. There is a risk that the Group experiences difficulties in the sales of additional niobium volumes, which can adversely impact the Niobium Business and its financial performance.

15. Risks relating to excess capacity in global niobium market

Currently there is considerable spare capacity in the ferroniobium market, with capacity utilisation in 2015 estimated at 59%. If CBMM, the largest producer which produces 88% of global niobium production in 2015, increases its production, the price will drop as CBMM sets the price while other producers follow. As Niobec and the Niobium Business have higher cash costs than CBMM does, they may be displaced once the price drops below their respective cash costs. Therefore, there is a risk that other producers apart from CBMM, including the Niobium Business, may be displaced after CBMM's increase in niobium production. Additionally, there is also a risk that the profitability of the Niobium Business will be negatively impacted, due to the increased utilization of excess capacity. However, excess capacity in the niobium industry has existed for many years – it is possible that, upon CBMM's production increase, anti-competitive regulatory responses may be triggered.

16. Risks relating to local political and economic outlook

The Niobium and Phosphates Businesses' are located in Brazil, as well as the majority of the market for the phosphate products. This exposes the Group to additional risks, which are directly linked to the political and economic circumstances in Brazil. Any changes in the outlook of the country will have a direct impact in the operations of the Niobium and Phosphates Businesses, including, among other things, the currency exposure with raw materials, labor, and other costs.

Likewise, the economic and political environment of Brazil can have an impact on the agricultural and fertilizer sector, which would directly impact the volumes sold by the Niobium and Phosphates Businesses, and affecting their financial results.

17. Risks relating to input prices

The Niobium and Phosphates Business' production processes depend on several inputs, both imported from international markets and sourced from local markets. An increase in these prices would pressure the contribution margins of the niobium and phosphate products, and impact the profitability of the operations.

18. Risks relating to workplace safety, including personal injury, death and legal liability

The Niobium and Phosphates Businesses are subject to risks related to workplace safety, including personal injury, death, and damages to, or destruction of, the mining and processing equipment, which could cause delays in performance, as well as monetary losses and legal liabilities. While mining and mineral processing and transportation are inherently dangerous activities, the Niobium and Phosphates Businesses have had a good safety record, showing improvements in the lost time injury frequency rates, being the number of lost time injuries occurring in a workplace per 1 million man-hours worked. The Niobium and Phosphates Businesses' operations pay specific attention to transportation safety, fatigue management, low energy incidents, structural integrity, and continuous improvement in operational risk management process. However, there can be no assurance that serious accidents or fatalities would not occur in the future. If the Niobium and Phosphates Businesses fail to prevent serious accidents or fatalities, they could be held liable for damages, and there would be lost time and disruptions to normal operations and processes. Such accidents or fatalities could also have a negative impact in the reputation of the Enlarged Group, and its relationship with the local community.

19. Risks relating to customers and suppliers

The Phosphates Business sells its products to regional fertilizer blenders, and currently 55% of sales are under contracts to these customers. These contracts set indicative volumes and pricing mechanisms used mostly for planning, as there is not a formal arrangement for payment. The remaining 45% of sales are completed through spot contracts. The nature of these sales contracts can expose the Company to financial risk related to foreign exchange risk, since the contracts are transacted in USD.

If the Company is unable to secure the renewal of these annual arrangements on similar terms or that are favourable to the Company, there could be an adverse impact on the Company's financial performance and operating results. Additionally, while there is a strict governance process in place in the Niobium and Phosphates Businesses relating to customers' credit in order to mitigate the risks of default, the Company may have credit exposure to its customers from time to time, and any material adverse change in current customers' financial position may impact the operations and financial performance of the Company. There is also exposure to the minimum volumes agreed with each contract, and the responsibility the Company has to fulfill these levels.

The Phosphates Business may also have exposure to minimum purchases agreed with certain suppliers, even though there are no significant financial penalties under these contracts. There are contracts that range from the purchase of raw materials, to the provided electricity needed for operations. If the expected sales volumes deviate from the budget, there may be an adverse impact in the financial and operational performance of the Company due to the higher costs. In addition, there is no assurance that supplies needed for the Phosphates Businesses' operations will be available on time or at all. Any unforeseen adverse changes in the financial and operational performance of the suppliers may have an impact in the performance of the Company.

The niobium products are sold under long-term (6–12 months), quarterly and spot contracts. The Niobium Business has been optimizing its sales strategy by switching from distributor sales model to develop direct relationships with end customers since 2014. There is a risk that a higher discount to pricing is needed in order to implement the sales strategy and to secure an increasing number of direct contracts. A higher discount to pricing may adversely impact the Niobium Business' profitability and financials.

A large proportion of the Company's niobium product is sold to Europe, and Asia is the largest consuming region of ferroniobium, accounting for 47% of the global total consumption. Therefore, the potential customer base of the Niobium Business is relatively concentrated.

20. Risks relating to litigation

The Niobium and Phosphates Businesses may be exposed to risks of litigation. To the extent that such risks are not covered by insurance, an adverse outcome in litigation or the cost of and the management's time spent on responding to potential or actual litigation or negotiating settlement of claims may have a material adverse impact on financial performance.

There are a number of existing ongoing litigations for the Niobium and Phosphates Businesses, and claims which are categorized as a "probable" loss are provisioned. There are a number of provisions related to other labor, tax, and administrative claims for which AANB or AAFB is defendant and plaintiff.

21. Risks relating to the ability to attract, retain and train key personnel

As part of the Proposed Transaction, the Purchaser has undertaken to retain employees who are employed by AAFB, AANB and offer employment to employees who are responsible for the Niobium Sales Function. Although there are competitive compensation plans to remain in place, as well as a good relationship with the three different unions of which the employees are part of, as at the Latest Practicable Date, the Purchaser cannot give assurance that the employees will accept such offers of employment or that those who do accept such offers of employment will be sufficient to continue the operations in the manner in which they were prior to Completion.

The future performance of the Niobium and Phosphates Businesses depend, to a certain degree, on its ability to continue to attract, retain and motivate key qualified personnel, key senior management and other employees with a variety of skills and experience, including in relation to the operation of mineral projects and processing plants, as well as administrative staff. There is no assurance that these key qualified personnel will continue to provide services to the Niobium and Phosphates Businesses or will honor the agreed terms and conditions of their employment or service contracts. Although there has been a historical good relationship with the local community due to the preference of hiring local workers, there is no assurance that this support will remain. If the Niobium and Phosphates Businesses are not successful at attracting, retaining, and training such personnel, the businesses and results of operations may be materially and adversely affected.

22. Risks relating to foreign currency exchange rate fluctuations

The Phosphates Business' sales are typically denominated in USD, while its invoices are typically issued in BRL and a majority of production costs and SG&A expenses are also indexed in BRL. The Phosphates Business currently has no currency hedging in place.

The Niobium Business sells ferroniobium denominated in mainly USD and EUR, while a majority of production costs and SG&A expenses are indexed in BRL. The Niobium Business currently has hedges in place for its exposure to USD:EUR rates on a small proportion of sales which are denominated in EUR.

The effect of currency exchange fluctuations is impossible to predict with any degree of certainty. The appreciation of the BRL would increase the costs of operations in USD terms, which could have a material adverse effect on the Niobium and Phosphates Businesses' financial condition, results of operations or prospects. Similarly, the sales denominated in EUR could also be undermined as a result of BRL appreciation, although on a much smaller scale given only a small portion of sales are denominated in EUR.

23. Risks relating to compliance with applicable environmental protection and remediation regulations

The Niobium and Phosphates Businesses are subject to environmental risks, which exposes their operations to risk of compliance with environmental regulations. Therefore, changes in regulations, or failure to meet obligations, expose the Niobium and Phosphates Businesses to increased costs, which will impact operational and financial results.

Mining activities have inherent risks and liabilities associated with environmental damage and the disposal of waste products occurring as a result of exploration and production. The occurrence of any environmental incident could delay production or increase production costs.

There may be changes in the new mining code under approval to increase requirements on disaster prevention measures and extend penalties against companies and executives mainly due to the biggest environmental accident in the country history when a mining dam in the State of Minas Gerais collapsed.

The provisions or reserves made by the Niobium and Phosphates Businesses for the rehabilitation and remediation of the Catalão/Ouvidor/Cubatão/Boa Vista/Mina I and II/Tailings Dam and Plant, including any performance bonds held by regulatory authorities, may not be sufficient to cover its actual liabilities.

24. Risks relating to limited insurance coverage that may not be adequate to satisfy all potential claims

The Niobium and Phosphates Businesses have insurance coverage that is considered consistent with industry practice. However, given the nature of exposure that the Niobium and Phosphates Businesses have to a wide group of environmental, industrial, labor, and other risks, there is a possibility that the Company will not be covered for all the potential risks associated with its activities.

Additionally, the Company may not be able to maintain insurance premium costs at economically feasible levels, or at all. The lack of coverage, or sufficient coverage, could result in negative impact to the Niobium and Phosphates Businesses' operations and financial position.

25. Risks relating to change in future plans

The fulfillment of the Niobium and Phosphates Businesses' operational and financial objectives depends on several factors, including, but not limited to, (i) the availability and cost of capital; (ii) current and projected prices of niobium, phosphate and phosphate derived products; (iii) niobium and phosphate product (particularly phosphate fertilizer) markets; (iv) cost and availability of inputs, capital goods, supplies, and personnel; and (v) changes in estimates of project completion costs.

Depending on these variables, the plans for the operation of the Niobium and Phosphates Businesses may change.

RISKS RELATING TO THE INDUSTRY

26. Risks relating to competition

The markets for phosphate products are competitive and the Phosphates Business will face competition from other producers. Competition is based on price, production, capacity, quality, transportation and logistics capabilities and cost, and brand name.

Imports play a big role in competition in the fertilizer market, so the facility to plan logistics in the local market will be a key factor for domestic producers. Also, the flexibility to adapt to market conditions and change the product mix from high to low analysis fertilizer.

Niobium prices are largely determined by CBMM. If the expansions of existing producers all go ahead as planned, capacity utilisation by 2020 will be only 40–47%. Therefore, there is a risk that CBMM decreases its prices or increases its niobium production, or other future niobium projects commence production resulting in greater competition and lower prices which will adversely impact the Niobium Business performance and its financials.

The mining industry is also characterized by technological advancements and the introduction of new production and processing processes using new technologies, and competitors may develop methods that are more effective. Competitive activities in the markets could have a significant impact on the prices realized for the Niobium and Phosphates Businesses.

The Niobium and Phosphates Businesses' future success will depend on their abilities to respond in an effective and timely manner to competitive pressure.

NIOBIUM MARKET OVERVIEW

Introduction

Niobium (Nb) is a member of the group of VA transition elements. It is soft and ductile and characterised by high melting and boiling points. It is used mainly as an alloying addition to steel in the form of ferroniobium (FeNb).

Most niobium is obtained from deposits of the mineral pyrochlore, which can be directly converted to ferroniobium or used to produce niobium pentoxide (Nb_2O_5), which is the starting point for most other higher value-add niobium end-products. These include nickel-niobium (NiNb) master alloys used in high-performance alloys; alloys and intermediates of niobium with zirconium (Nb-1Zr), titanium (Nb-44Ti) and other elements; various grades of pure niobium metal; lithium niobate and other niobate crystals; and a range of other niobium compounds.

Niobium almost always occurs together with tantalum and often also in conjunction with titanium, zirconium and rare earths. A large number of niobium-tantalum minerals are known but only a few are of commercial importance.

The steel industry is by far the largest user of niobium. However, niobium is used in selective, higher value-add types of steel produced. It is used mainly in High-strength low-alloy ("**HSLA**") steel, advanced high strength steels, stainless and heat-resisting steels, which have a variety of applications such as natural gas pipeline, automotive components and construction.

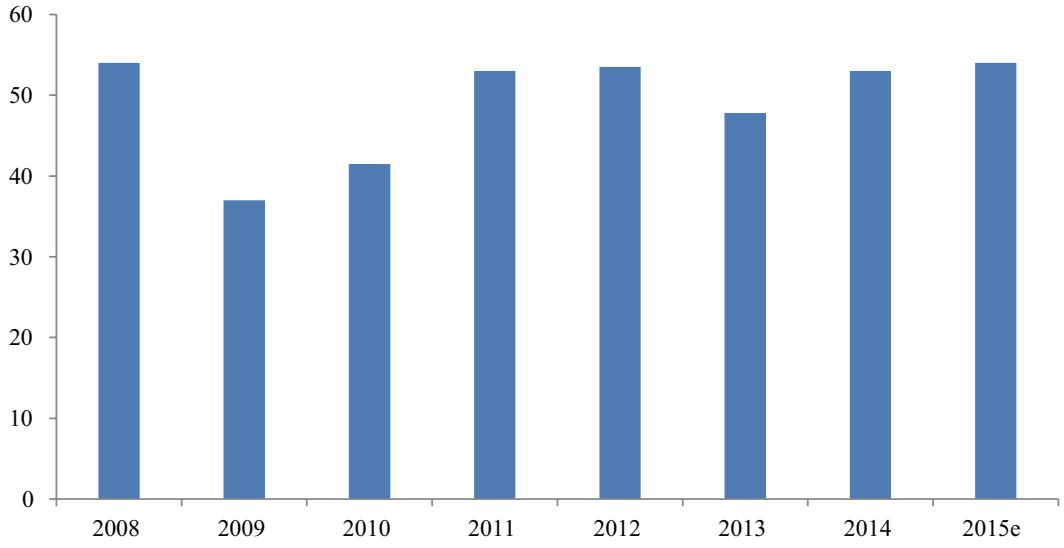
Niobium demand

The niobium market can be split into HSLA-grade ferroniobium which is used in steelmaking, and a variety of non-steel applications. According to the Roskill Report, ferroniobium makes up about 90% of total niobium consumption. The overall demand on niobium is relatively inelastic compared to other commodities used in the steel manufacturing process, given that it only takes up a small portion of steel production cost and is mainly used in production of higher value-added types of steels.

Consumption of ferroniobium had been fairly stable during the 1980s and 1990s. It entered a period of almost uninterrupted growth in early 2000s, passing 40kt Nb in 2005 and reaching a peak of over 54kt in 2008. The global economic crisis resulted in a drop in consumption of niobium in 2009, by 17kt. However, the market recovered swiftly in 2010 and into 2012, with an increase in demand by 4.6kt and 12kt, respectively. Another decline in demand of 5.6kt was seen in 2013 but 2014 saw a strong recovery. According to the Roskill Report, world consumption of ferroniobium was 54.1kt in 2015, just below the peak of 2008.

The below chart sets out the world consumption of ferroniobium from 2008 to 2015:

World: Consumption of ferroniobium, 2008 to 2015E (kt Nb)

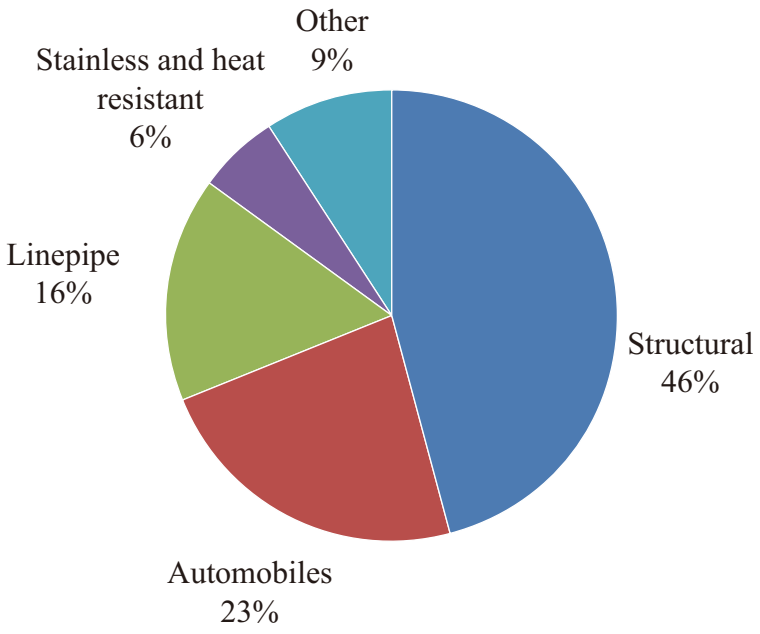


Source: RCG

Growth in ferroniobium consumption has been underpinned by increasing global production of steel – by far the largest market for niobium – and in particular because of the rising use of certain added-value steels that contain niobium. In all cases, ferroniobium is added as small fractions of a per cent by weight per tonne of steel ("**Intensity of Use**").

The below chart sets out the world estimated consumption of ferroniobium by applications in 2015:

World: Estimated consumption of ferroniobium by application, 2015E

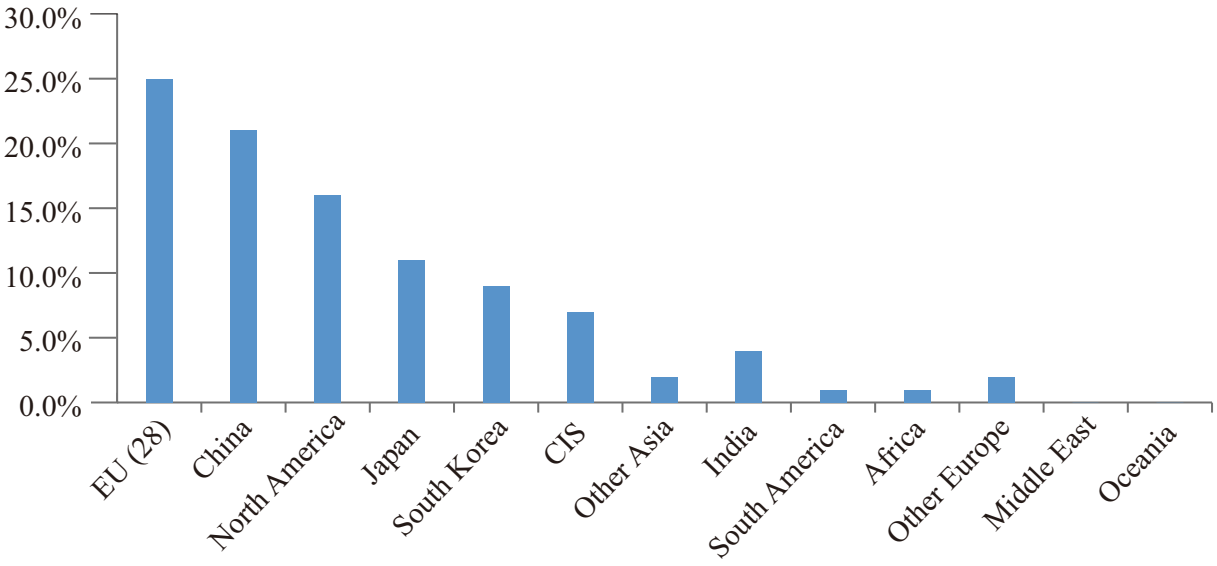


Source: RCG

Asia is the largest consuming region of niobium, accounting for 47% of the global total with China, Japan and South Korea which make up the majority of Asian demand. Germany is the major European consumer of niobium. The North American market is dominated by the US. Demand in the Middle East is limited to Turkey, Iran and Egypt, of which consumes about a few hundred tonnes a year. In South America, Brazil is the largest consumer, with CBMM supplying almost the entire demand of niobium of Brazilian steelmakers.

The below chart sets out the world estimated consumption of ferroniobium by country and region in 2015:

World: Estimated consumption of ferroniobium by country/region, 2015E



Source: RCG

The EU's share of consumption has dropped considerably from 2005 to 2015, while North America's consumption share has remained consistent during the same period. Meanwhile, all Asian countries/regions, with the exception of Japan, have increased their share – as has the CIS.

The below table sets out the world share of ferroniobium consumption in 2005 and 2015:

World: Share of ferroniobium consumption, 2005 and 2015E (%)

	2005	2015	CAGR 2005–2015
EU (28)	40%	25%	(1.5)%
China	18%	21%	4.5%
North America	16%	16%	3.0%
Japan	12%	11%	2.5%
South Korea	4%	9%	10.6%
CIS	3%	7%	14.5%
South America	2%	2%	0.4%
Other Asia	2%	4%	12.1%
Other Europe	1%	1%	3.1%
Africa	1%	1%	10.4%
India	1%	2%	6.9%
Middle East	0%	0%	(0.6)%
Oceania	0%	0%	9.7%

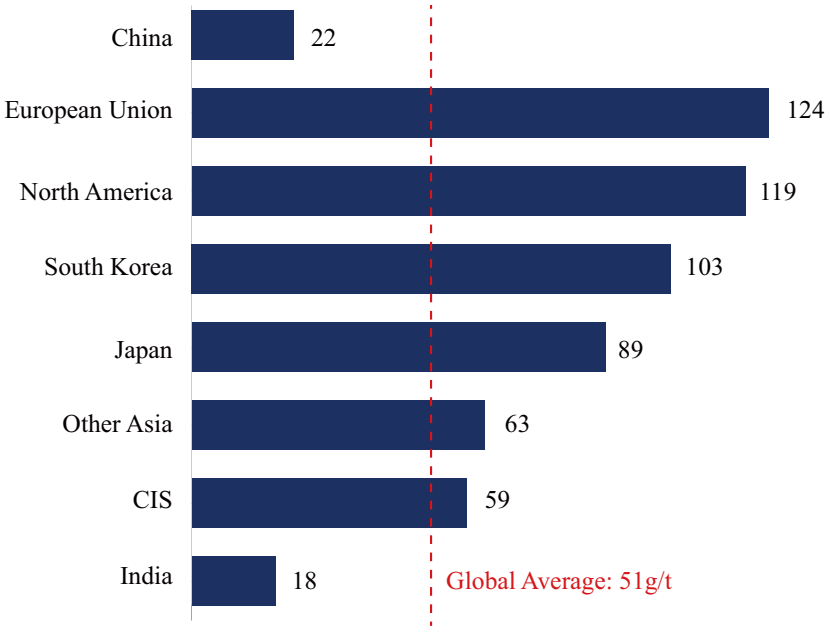
Note: EU refers to 2015 member states in both years.

Source: RCG

Despite Asia being the largest consumer of niobium, the Intensity of Use remains low in key countries such as China and India. This provides further growth potential in niobium demand from these countries when Intensity of Use increases due to a shift from lower value-add steel to higher value-add steel as their economy matures.

The below chart sets out the intensity of ferroniobium use in 2015:

Intensity of ferroniobium use, 2015 (g/t FeNb)



Source: RCG

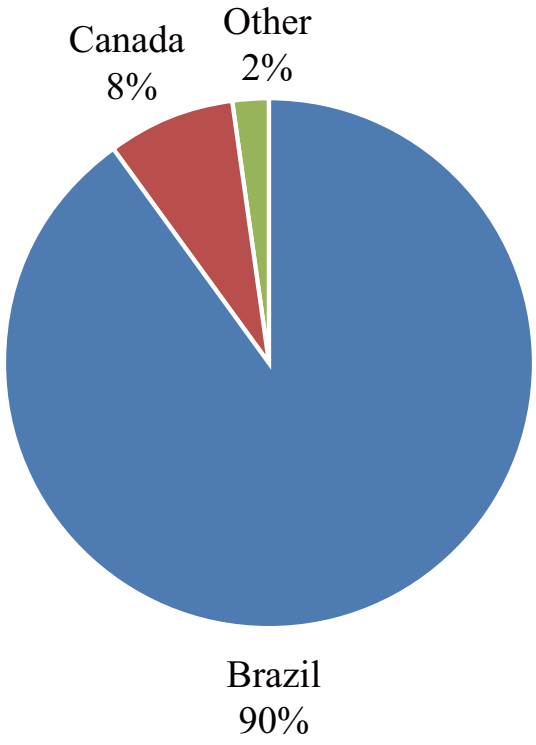
Niobium supply

Production concentration by country

Production of niobium is mainly in Brazil and Canada, taking up to 90% of global production volume.

The below chart sets out the world mine production of niobium by country in 2015:

World: Mine production of niobium, by country, 2015E



Note: Total = 97kt Nb_2O_5

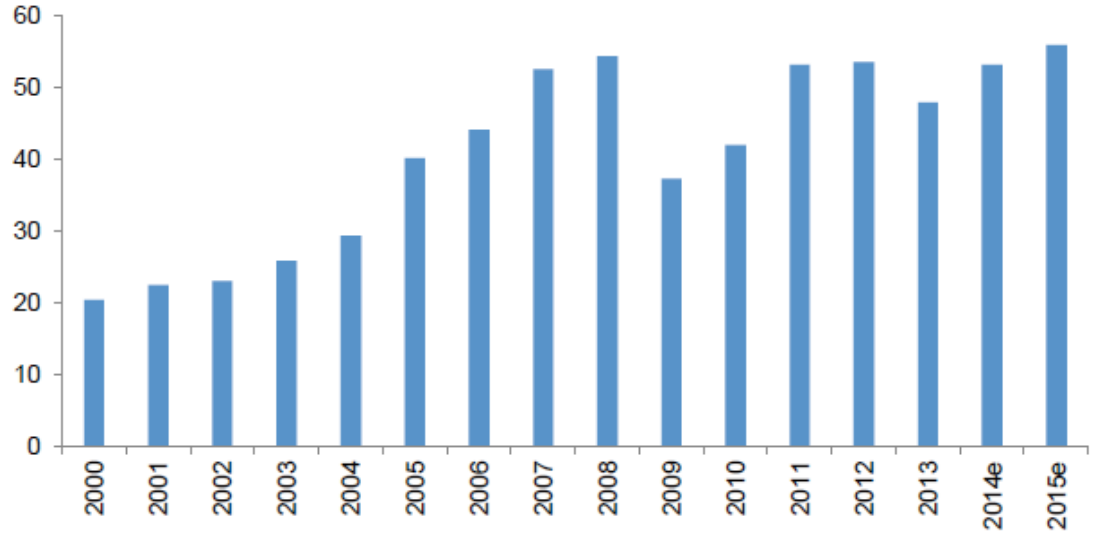
Source: RCG

Countries that produce, or may produce, small amounts of niobium include Bolivia, Burundi, the Democratic Republic of Congo, Ethiopia, French Guiana, Kazakhstan, Mozambique, Nigeria, Russia, Rwanda and Uganda.

HSLA-grade ferroniobium is the main end-use for niobium and the trend in ferroniobium supply thus follows that for mine production. From 2000 to 2010, shipments of ferroniobium increased at a CAGR of 7.5%. Shipments fell very sharply in 2009 but rebounded strongly in 2010 and 2011 before stabilizing to 2015.

The below chart sets out the world production of ferroniobium from 2000 to 2015:

World: Production of ferroniobium, 2000 to 2015E (kt Nb)



Source: RCG

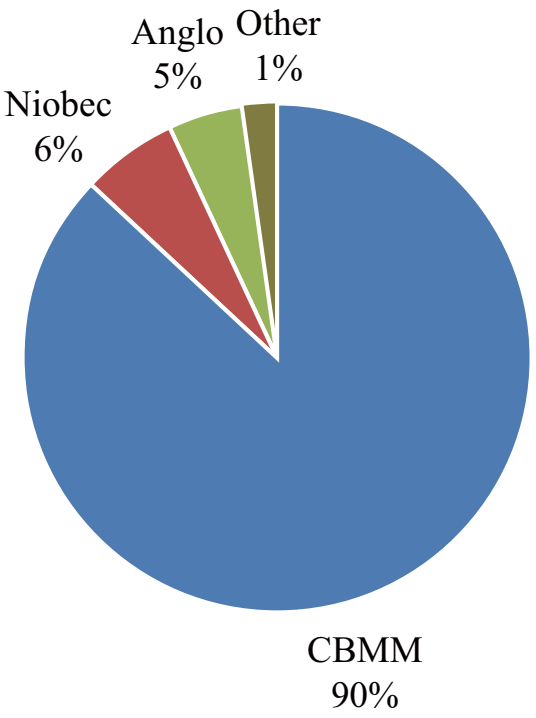
Over the 2010 to 2015 period, production increased at a rate of 5.9% per year to 55.9kt in 2015. Brazilian production of ferroniobium accounted for roughly 90% of this total, while Canadian production represented around 7%.

Major niobium producers

Production of pyrochlore is mostly from the Araxá (CBMM) and Catalão (Anglo American) mines in Brazil and from Niobec (Magris) Resources' Saint-Honoré operation in Canada. There is also some small-scale but intermittent pyrochlore production in Africa. Pyrochlore mined in Brazil and Canada do not enter international trade in the mineral form. All mine production from Catalão and Niobec (Magris) Resources are converted to ferroniobium by the producers prior to sale using an aluminothermic reduction process. At CBMM, it is converted to ferroniobium, along with alloys, niobium metal and oxide products. Most ferroniobium entering the market originates, therefore, from either Brazil or Canada, with Brazil being by far the larger of the two sources.

The below chart sets out the world ferroniobium production by company in 2015:

World: Estimated Ferroniobium production, by company, 2015



Note: Total = 55.9kt

Source: RCG

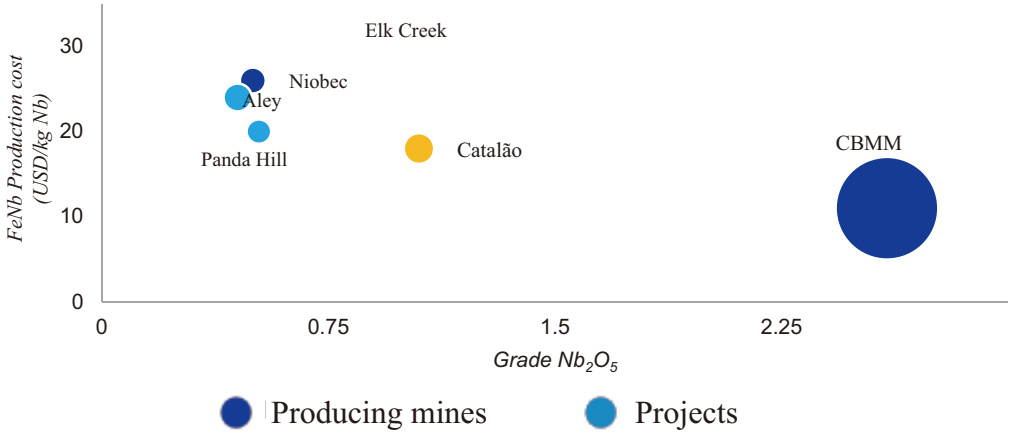
Anglo expanded the niobium production capacity of Catalão through the BVFR expansion and is expected to increase niobium production capacity to 6.8ktpa once the plant reaches its nameplate capacity later in 2016. Together with the debottlenecking activities now in ramp-up, the niobium production capacity could reach to 9ktpa, making it the second largest niobium producer globally, after CBMM.

Niobium Industry Cost curve

Given that CBMM's mine is a simple open-pit operation with the highest grade of ferroniobium, it has the lowest production cost. The ferroniobium produced by Anglo has a lower grade compared with CBMM, but there remains a competitive cash cost as the mine is also an open-pit operation. On the other hand, Niobec (Magris) Resources has the lowest grade of existing operations and is underground, resulting in a relatively high ferroniobium production cost, Other existing and potential projects are less competitive as they are either underground operations or have lower grades than the ferroniobium produced by CBMM and Anglo.

The below chart sets out the comparison of ore grade and ferroniobium product cost at existing and potential projects:

Comparison of ore grade and ferroniobium production cost at existing and potential projects



Note: circle size represents production capacity

Source: RCG, Company Filings

Outlook for niobium

Niobium demand

According to the Roskill Report, the outlook for global steel production in the coming years will be steady growth of 1.6% per year to 2025. The below table sets out the crude steel production forecasts:

Crude steel production forecasts (Mt)

	2015	2020	2025	CAGR
China	793.6	750.3	807.0	0.2%
EU (28)	167.1	161.9	177.0	0.6%
North America	111.5	114.2	127.5	1.3%
Japan	103.6	103.5	111.9	0.8%
CIS	100.7	104.7	114.6	1.3%
India	92.9	86.9	114.2	2.1%
South Korea	68.5	74.4	83.1	2.0%
Other Asia	57.6	60.9	76.3	2.9%
South America	43.8	160	188.5	15.7%
Other Europe	35.8	38.3	43.9	2.1%
Middle East	29.2	32	37.0	2.4%
Africa	13.4	15.6	17.8	2.9%
Oceania	5.7	5.5	5.8	0.2%
Total – Base	1,623.4	1,708.2	1,904.6	1.6%

Note: CAGR 2015 to 2025

Source: RCG

Based on the demand of steel, Roskill Consulting Group forecasts the growth in demand of ferroniobium to be 2.6% per year to 2025, implying a global consumption of 70kt in 2025. The Intensity of Use is also forecasted to increase, therefore the ferroniobium demand will grow in excess of steel production.

The below table sets out the forecasts for ferroniobium demand to the year of 2025:

Forecasts for ferroniobium demand to 2025 (kt Nb)

	Base
2015E	54.1
2020E	59.7
2025E	70.0
CAGR	2.6%

Note: CAGR 2015 to 2025

Source: RCG

Niobium supply

Currently, there exists considerable spare capacity in the ferroniobium market, with capacity utilisation in 2015 estimated at 59%. Given excess capacity and new development projects' lack of cost competitiveness, Roskill Consulting Group's view is that there is no room for the development of new niobium mines.

The below table sets out the forecast for the supply/demand balance of ferroniobium to 2020 for existing producers:

Forecast for supply/demand balance to 2020 (existing producers)

	2015E	2016F	2017F	2018F	2019F	2020F
Capacity (kt Nb)						
CBMM	79	79	100	120	120	120
AANB	7	8	9	9	9	9
Niobec (Magris)	5	5	5	5	5	5
China	1	1	1	1	1	1
Total	92	93	115	135	135	135
FeNb demand (kt Nb)						
Base	54.1	55.1	56.2	57.4	58.5	59.7
Total						
Surplus capacity (kt Nb)						
Base	37.9	37.9	58.8	77.6	76.5	75.3
Total						
Capacity utilisation						
Base	59%	59%	49%	42%	43%	44%
Total						

Source: RCG

Pricing of niobium

Historical pricing

Prices of ferroniobium are largely determined by CBMM and followed by other producers. This ability to influence and maintain pricing levels derives from various factors, including:

1. CBMM's dominant position in the market;

2. The overwhelming technical advantages offered by the use of niobium;

3. Minimal opportunity for substitution of niobium by other alloying elements, including vanadium; and

4. Niobium's very small contribution to overall steel production cost.

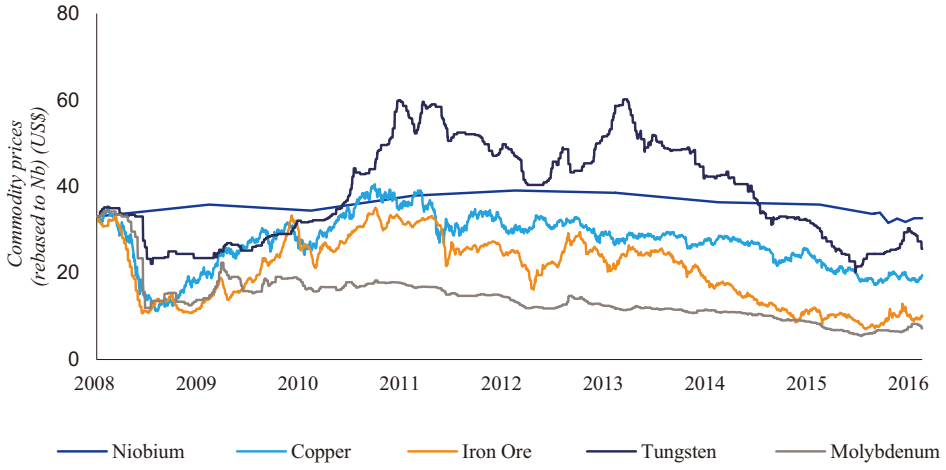
The price of ferroniobium was almost unchanged in current terms for many years. CBMM's strategy of growing the ferroniobium market over the past years has been based to a very large extent on promoting the technical benefits of niobium and the added value.

Between 2006 and 2008, CBMM doubled the price of ferroniobium. At first, the movement appeared to be a spike but it later became clear that it was a permanent increase to address what appears to have been structural under-valuing of niobium. Up to that point, the strong growth in demand for ferroniobium had not been reflected in its price.

Stability returned at the higher price level and subsequent increases have been modest. Overall, the price of ferroniobium is demand-inelastic. The niobium input cost is a small percentage of steel production cost which supports demand-inelasticity.

The global economic downturn in 2009 caused demand for ferroniobium to fall sharply. However, that had minimal effect on prices. Ferroniobium prices remained relatively stable from 2009 to 2015 compared to more significant price declines and volatility in other commodities. The following chart sets out the comparison of historical prices between ferroniobium, copper and iron ore:

Comparison of historical prices between niobium, copper, iron ore, tungsten and molybdenum



Source: *Bloomberg and RCG. Niobium prices from RCG, 2016 monthly prices based on quoted ferroniobium prices and contained niobium content in ferroniobium product of 66%. Copper prices based on LME cash copper price. Iron ore prices based on iron ore 62% Qingdao China index. Tungsten prices based on tungsten concentrate 65% WO3 China Domestic. Molybdenum prices based on LME molybdenum spot prices.*

Historically, supply and production capacity have not been significant factors in niobium prices. Despite considerable excess capacity historically, prices of niobium have remained fairly stable throughout this period. Given that CBMM accounts for approximately 88% of global production (as of 2015), niobium prices are generally set by CBMM, absent significant changes in demand. Other producers are price takers in the global niobium market.

Price forecast

For its base case price forecast, Roskill Consulting Group forecast the pricing of ferroniobium based on the assumptions that:

1. In the short-term, and probably medium-term, another step-increase in prices by CBMM is unlikely; in recent months, in response to weaker steel demand, CBMM has been observed to reduce prices;

2. Prices for HSLA-grade ferroniobium are largely demand-inelastic and producer-driven; and

3. Transport costs for ferroniobium are insignificant (cents per kg) and have been disregarded.

The below table sets out the regional price forecasts of ferroniobium to 2025:

Regional price forecasts to 2025 (USD, 2015 real)

Country		**2015**	**2020**	**2025**
US	Base	40.36	41.67	42.53
China	Base	36.24	37.42	38.19
Germany	Base	33.36	34.45	35.15
Japan	Base	32.55	33.61	34.30
Russia	Base	30.86	31.87	32.52
South Korea	Base	39.83	41.13	41.97

Source: RCG

PHOSPHATES MARKET OVERVIEW

Introduction

The fertilizer industry is divided into three major nutrients: nitrogen, phosphate and potash:

1. Nitrogen

Nitrogen-based fertilizers are derived primarily from ammonia (NH_3), which, in turn, is made from nitrogen present in the air and natural gas, making this an energy-intensive nutrient. Ammonia is the main component of nitrogen-based fertilizers like ammonium nitrate and urea. Production of nitrogen-based fertilizers has a regional profile due to the high cost associated with transportation and storage of ammonia, which requires refrigerated and pressurized facilities. As a result, only 10% of the ammonia produced worldwide is traded in global markets. Asia receives the largest volume of imports, accounting for 34% of global trade. The main exporting countries are Russia, Trinidad and Canada.

2. Phosphate

Phosphate is the major source of phosphorus, which is crucial to energy reactions in plants (such as photosynthesis), speeding maturity and reproduction, and increasing yield. For animals, phosphate is a critical component in biochemical reactions essential to muscle contraction and normal body growth, maintenance and repair. Phosphate is also used in industrial products such as soft drinks, food products, and metal treatment.

Phosphates products can be broadly categorized into phosphate fertilizer, animal feed (DCP), and acids. Acids are mainly used for fertilizer production but are also sold to industrial customers.

Within the high and low analysis fertilizer segments, a range of products with different grades of P_2O_5 and additives are offered to meet the needs of different segments (defined by specific soil characteristics and the crop being grown). High analysis products are MAP and GTSP. The main low analysis products include SSG and 03–17. MAP is the most popular and standardized high analysis product in Brazil.

Phosphate rock is mined and dissolved in a mixture of phosphoric and sulfuric acids. This results in production of additional phosphoric acid, which is the feedstock for most fertilizer, industrial, and feed phosphate products. Phosphoric acid can be combined with ammonia and granulated to produce the solid fertilizers DAP and MAP, evaporated to produce merchant-grade phosphoric acid (MGA), or further evaporated to produce super phosphoric acid (SPA), which is then converted into liquid fertilizer.

3. Potash

Potash is the common term for nutrient forms of potassium. Potassium is essential for plants health and there must be an adequate supply in the soil to maintain good growth. The potash industry is highly concentrated, with the five major producers accounting for 69% of the total world production capacity.

Brazilian Agricultural Sector

Brazil plays a key role in the global supply of agricultural products as it is the largest producer and exporter of soybeans, corn, coffee, orange juice, meat, sugar and poultry, among others.

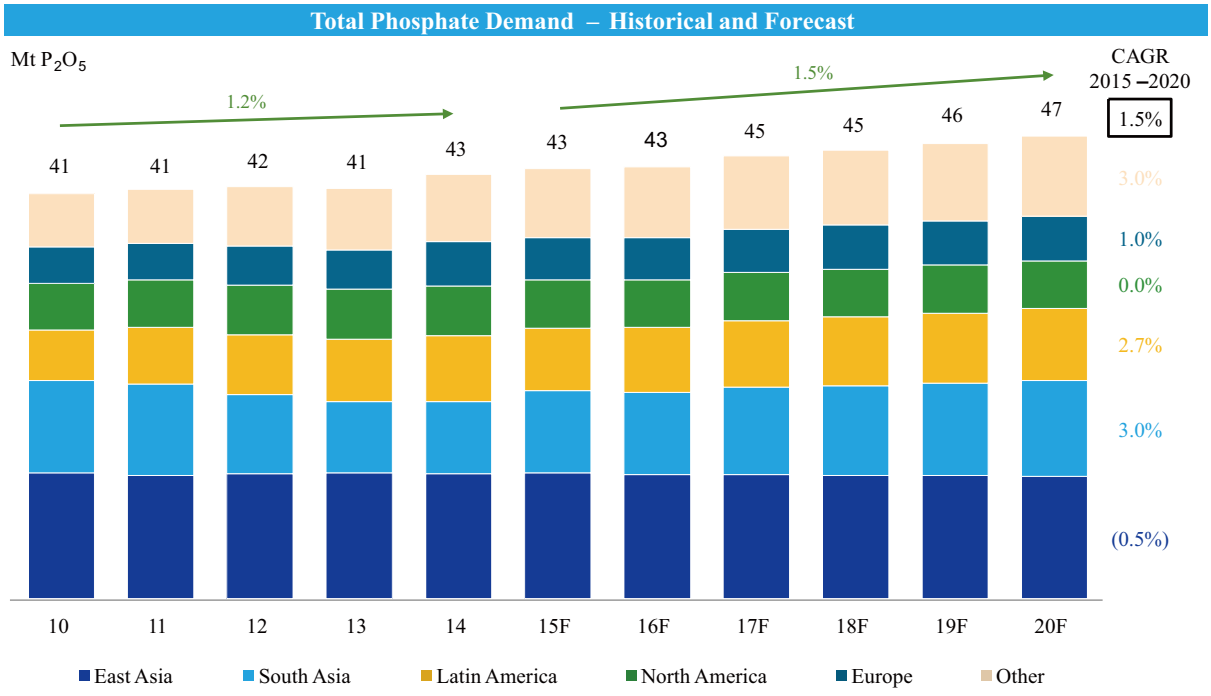
Brazil benefits from a unique combination of factors which are critical to the development of a leading agricultural country: it has regular rainfall and large availability of water, with 15% of the world's fresh water; all-year-round crop cycle, due to its location in the tropics; low cost of land, advanced technology, qualified labor, and stable regulatory environment among others.

Brazil has almost 60M hectares of arable land with more than 300M hectares of potential arable land that is currently under permanent meadows or pasture. Agriculture plays a structurally important role in Brazil's economy, with 5.9% of the country's GDP derived from agricultural activities and 17.5% of the country's labor force employed in the agricultural complex. Brazil is characterized by the co-existence of large estates with a large number of small farms. This results in an agriculture sector that has a broad range of sophistication. However, Brazilian soil is nutrient deficient, leading to sustainably high (and growing) demand for fertilizers.

Phosphate Demand

Global population growth is primarily driven by lower and middle income countries; stable, mature economies have been experiencing lower or stagnant growth than the rest of the world. From an agricultural perspective, there is a high correlation between GDP and protein intake: the higher the GDP per capital, the higher the protein intake per capita. Consequently, a larger population associated with growing GDP is expected to drive continuously increasing demand for agricultural products.

Global phosphate demand has grown at 1.2% annually from 2010 to 2014 and is expected to grow at 1.5% annually from 2015 to 2020. Phosphoric acid is the bottleneck of the phosphates industry and its effective capacity utilization rate is becoming tighter. The below chart sets out the historical global phosphate demand from 2010 to 2014 and the forecast of global phosphate demand from 2015 to 2020:



Source: CRU Phosphates, IFA – International fertilizer Industry Association

Brazil is the fifth-largest consumer of fertilizers and the third-largest phosphate consumer in the world after China and India. It accounts for approximately 12% of world phosphate fertilizer consumption. Brazil is the largest agricultural exporter among developing countries and registered the highest growth rate in P_2O_5 consumption over the last two decades.

Brazilian phosphate demand was estimated at 4.75Mt of P_2O_5 in 2014 and 4.4Mt in 2015, of which DAP and MAP accounted for 50–60% of the volume consumed, followed by SSP and TSP.

Imports

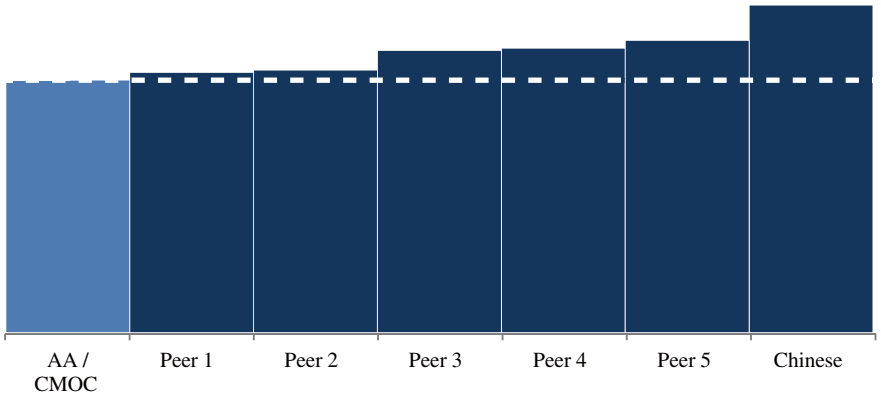
Latin America is heavily reliant on imports of phosphates, with Brazil accounting for 63% of the region's imports in 2014 with a large preference for MAP (80% of total imports).

Brazil imports 55% of its fertilizer consumption, including 75% of MAP, 100% of DAP, 11% of SSP, and 50% of TSP.

Phosphate Supply

Brazil has significant existing production of phosphate rock, mainly carbonatite with a relatively low P_2O_5 content and which, like all apatites, can be concentrated up to produce a high-grade concentrate (35–38% P_2O_5).

2014 Cost Curve (Landed Cost – US$/t)



Brazil and North Argentina are the only major areas of SSP production, with the exception of Egypt, that are actively expanding capacity. Brazil is one of the few countries where investment is being made in new SSP capacity. Even though the SSP plants have been long established, most of them are operating near full capacity.

Phosphate Prices

Due to the amount of phosphate, and fertilizers in general, imported to Brazil, the local market price is guided by international prices. The main benchmark is MAP cfr Brazil, which is then adjusted with the import price parity to obtain local prices for all other high analysis and low analysis products sold in Brazil. MAP cfr Brazil fluctuates in a similar fashion to other global benchmarks such as MAP/DAP fob Morocco, MAP/DAP fob Tampa, and DAP fob Baltic. Historic prices have fluctuated significantly, with a recovery in 2010 and 2011 from low levels in 2009:

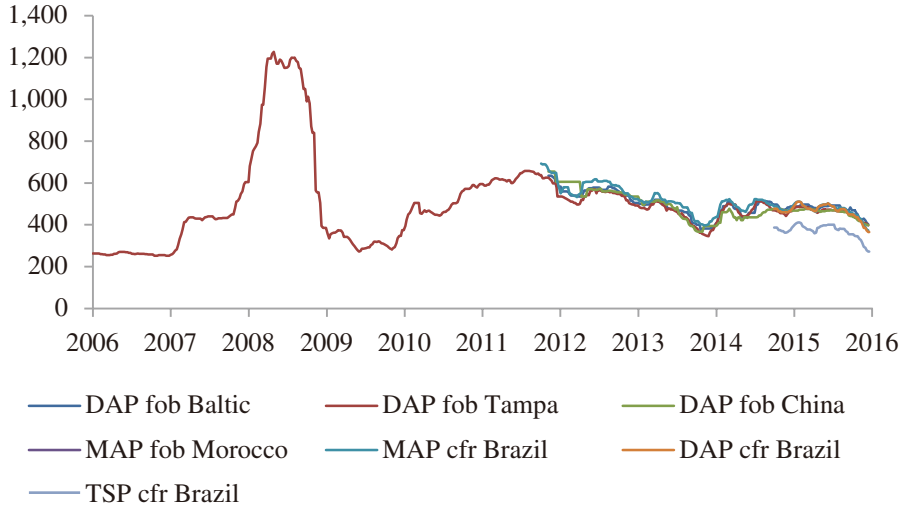
- 2012 and 2013 had downward pressure due to increasing inventories in key global markets, most notably in Saudi Arabia with the start-up of the Ma'aden project and lower export duties in China. There was also demand impact, with lower import volumes from India related to reductions in subsidies and the depreciation of the Rupee;

- 2014 resulted in increased prices due to strong demand from Brazil, the US, and India, as well as Europe. There were also supply disruptions from OCP;

- 2015 prices remained flat during the first nine months of the year despite increased global macroeconomic uncertainties, but decreased more than anticipated in the fourth quarter of 2015 because of higher inventories in India and lower demand in Brazil as well as India; and

- 2016 prices dropped significantly during the first quarter due to low demand in key markets, strong Chinese exports, and lower input prices. Shipping costs have also played a key role in phosphate pricing, which has dropped due to the global slowdown.

After reaching a trough during the first quarter of 2016, phosphate prices have started to recover in the second quarter of 2016. The below chart sets out the prices of various phosphate products in from 2006 to 2016:



Source: Argus

Brazil Import Parity Pricing

Since local producers are "price takers" in Brazil, the main component of the domestic price is the landed cost of the product, which is generally the MAP cfr Brazil benchmark. This final price is adjusted for port charges related to unloading, storage, demurrage, inland transportation and logistics costs. This pricing parity highlights significant cost advantages for local producers over the imported products.

1. THREE YEARS AND SIX MONTHS FINANCIAL INFORMATION

The financial information of the Group for each of the years ended 31 December 2013, 2014 and 2015 and for the six months ended 30 June 2016 can be referred to in the respective annual reports and interim report of the Company, which have been published on both the website of the Stock Exchange (http://www.hkexnews.hk) and the website of the Company (http://www.chinamoly.com).

i. annual report of the Company for the year ended 31 December 2013 (pages 57 to 156) at http://chinamoly.com/06invest/DOC/E-CMOC-AR006-hkex.pdf; or http://www.hkexnews.hk/listedco/listconews/SEHK/2014/0324/LTN20140324073.pdf;

ii. annual report of the Company for the year ended 31 December 2014 (pages 63 to 204) at http://chinamoly.com/06invest/DOC/E-CMOC-AR193-HKEx.pdf; or http://www.hkexnews.hk/listedco/listconews/SEHK/2015/0429/LTN201504291642.pdf;

iii. annual report of the Company for the year ended 31 December 2015 (pages 66 to 204) at http://chinamoly.com/06invest/DOC/E_03993_AR009_0426.pdf; or http://www.hkexnews.hk/listedco/listconews/SEHK/2016/0426/LTN20160426340.pdf; and

iv. interim report of the Company for the six months ended 30 June 2016 (pages 13 to 124) at http://www.chinamoly.com/06invest/DOC/E_03993_IR019.pdf or http://www.hkexnews.hk/listedco/listconews/SEHK/2016/0905/LTN201609051565.pdf.

2. STATEMENT OF INDEBTEDNESS OF THE ENLARGED GROUP

At the close of business on 31 July 2016, the Enlarged Group had outstanding bank loans, debt securities, other borrowings, charges and certain contingent liabilities and guarantee, details of which are set out as follows:

The Group

1. Bank loans

	As at 31 July 2016 *RMB '000*
Unsecured and unguaranteed	4,659,175
Secured and unguaranteed	3,834,290
Total	8,493,465

The secured bank loans are secured by bank deposits, structured deposits and other financial assets purchased from the banks.

2. Debt securities

	As at 31 July 2016 *RMB '000*
Unsecured and unguaranteed	
Short-term financing bonds (短期融資券)	1,000,000
Medium term notes (中期票據)	4,000,000
Total	5,000,000

3. Other borrowings

	As at 31 July 2016 *RMB '000*
Unsecured and unguaranteed	
Gold lease liabilities measured at fair value	1,876,760

4. Charges

As at 31 July 2016, the Company has pledged bank deposit of RMB470 million and bills receivable of RMB653 million to a bank for providing guarantee to Phelps Dodge Katanga Corporation, being the seller in relation to the Group's proposed acquisition of all of the issued and outstanding ordinary shares of Freeport-McMoRan DRC Holdings Ltd.

5. Contingent liabilities and guarantee

1) On 30 January 2013, the Company received relevant documents from the Intermediate People to the End Dateyang City, Henan Province, stating that West Lead Mine, Yangshuao, Luanchuan County (欒川縣楊樹凹西鉛礦) ("Yangshuao") filed a lawsuit accusing that the tailing storage built by the No. 3 Ore Processing Branch, a branch of the Company, was in its mining area. As the height of the dam of the tailing storage increased and the level of the groundwater rose, the mining facilities and equipment of Yangshuao were damaged. The plaintiff was unable to exploit the defined leadzinc ore and an economic loss was thus incurred. Therefore, the plaintiff made claims that No. 3 Ore Processing Branch shall cease the infringement and compensate the plaintiff for a direct economic loss of approximately RMB18.0 million. According to the results of judicial authentication, the appraised value of the mining right in the litigation in respect of Yangshuao amounted to RMB1.724 million.

On 21 March 2016, the Company received court decision from Intermediate People Court of Luoyang City, judging that the Company shall pay RMB1.724 million to the plaintiff. The Company has filed a counterclaim with the Higher People's Court of Henan Province.

No provision has been made as at 31 July 2016.

2) As at 31 July 2016, the Group provides guarantee to Australian government agencies through bank for its operation of copper and gold mine businesses in Australia. The amount of the guarantee is Australian dollar 29 million (equivalent to RMB143 million).

Niobium and Phosphates Businesses

1. Loans from related parties

	As at 31 July 2016	
	USD'000	*RMB Equivalent '000*
Unsecured and unguaranteed	393,500	2,617,208

2. Provision and Contingent Liabilities

The Niobium and Phosphates Businesses are subject to a series of legal claims relating to tax, labour and other civil matters that arise in the normal course of business. As at July 31 2016, provisions of USD18 million (equivalent to RMB120 million) have been made for those tax related claims and labour and civil claims, where the outflow of resources embodying economic benefits is considered probable.

As at July 31 2016, there are contingent liabilities of USD53 million (equivalent to RMB353 million) related to those tax related claims and labour and civil claims, where the outflow of resources embodying economic benefits is considered not probable.

Save as disclosed above or as otherwise mentioned herein, and apart from intragroup liabilities and normal accounts payables in the ordinary course of business, as at 31 July 2016, the Group and Niobium and Phosphates Businesses did not have any debt securities issued and outstanding, and authorized or otherwise created but unissued, and term loans, other borrowings or indebtedness in the nature of borrowing including liabilities under acceptances or acceptance credits or hire purchase commitments, and any mortgages and charges, guarantees and material contingent liabilities.

3. WORKING CAPITAL SUFFICIENCY OF THE ENLARGED GROUP

The Directors are of the opinion that, after taking into account the expected completion of the transaction, including the settlement of the consideration payable in cash, as mentioned in this circular and the financial resources available to the Enlarged Group, including but not limited to its internally generated funds, cash and cash equivalents, other external facilities from banks and financial institutions, and in the absence of unforeseen circumstances, the Enlarged Group has available working capital for 125% of its present requirements for the next twelve months from the date of this circular.

4. MATERIAL ADVERSE CHANGE

As at the Latest Practicable Date and to the best of the knowledge and belief of the Directors, there is no material adverse change in the financial or trading position of the Group since 31 December 2015, being the date to which the latest published audited financial statements of the Company were made up.

5. MANAGEMENT DISCUSSION AND ANALYSIS OF THE GROUP

Set out below is the management discussion and analysis of the Group for each of the years ended 31 December 2013, 2014 and 2015 as extracted from the annual reports of the Company and for the six months ended 30 June 2016 as extracted from the interim report of the Company. The financial data in respect of the Group, for the purpose of this circular, is derived from the audited consolidated financial statements of the Company for the years ended 31 December 2013, 2014 and 2015 and the unaudited consolidated financial statements of the Company for the six months ended 30 June 2016.

A. Management Discussion and Analysis of the Group for the Year ended 31 December 2013

(I) Business Review

During the year 2013, with the benefits of efficient management, detailed organisation and continued commitment of our staff, the Company fully capitalised on its resources and vertically integrated industrial chain and industrial scale. The Company's production volume of molybdenum remained stable and the production volume of tungsten products achieved a steady growth.

In 2013, the production volume of molybdenum concentrates (including 47% Mo), molybdenum oxides (including 51% Mo), ferromolybdenum (including 60% Mo) and tungsten concentrates (including 100% WO_3) (excluding Luoyang Yulu Mining Co.,

Ltd.* (洛陽豫鷺礦業有限責任公司)) ("**Yulu Company**") of the Company amounted to approximately 32,436 tonnes, 36,788 tonnes, 28,036 tonnes and 6,984 tonnes, respectively, representing a decrease of 0.1%, and an increase of 7.7%, 9.6% and 27.1% as compared with that of 2012, respectively. The production cost in cash of molybdenum metal (100%Mo) of the Company was RMB68,251/tonne in 2013 and its processing recovery rate was 84.6%; the production cost in cash of tungsten metal (100% WO_3) was RMB21,019/tonne and its processing recovery rate was 75.6%.

(II) Financial Review

Overview

For the year ended 31 December 2013, the net profit of the Group was RMB1,084.9 million, representing an increase of RMB68.5 million or 6.7% from RMB1,016.4 million for the year ended 31 December 2012. For the year ended 31 December 2013, net profit attributable to the owners of the parent company was RMB1,174.2 million, representing an increase of RMB123.9 million or 11.8% from RMB1,050.3 million for the year ended 31 December 2012.

Operating Results

For the year ended 31 December 2013, the Group recorded an operating revenue of RMB5,536.5 million, representing a decrease of RMB174.4 million or 3.1% from RMB5,710.9 million for the year ended 31 December 2012. For the year ended 31 December 2013, the gross profit of the Group was RMB1,803.0 million, representing an increase of RMB101.3 million or 6.0% from RMB1,701.7 million for the same period last year.

Operating Results, Operating Cost, Gross Profit & Gross Profit Margin by Products

The table below sets out the turnover, cost of sales, gross profit and gross profit margin of our products in 2013 and 2012:

	For the year ended 31 December							
	2013				2012			
Product Name	Turnover (RMB million)	Operating cost (RMB million)	Gross profit (RMB million)	Gross profit margin (%)	Turnover (RMB million)	Operating cost (RMB million)	Gross profit (RMB million)	Gross profit margin (%)
Domestic market								
– Molybdenum additive materials	2,455.8	1,697.3	758.5	30.9	2,599.5	1,860.5	739.0	28.4
– Tungsten-related products	1,111.9	136.7	975.2	87.7	929.0	204.6	724.4	78.0
– Deep-processed molybdenum products	75.0	73.3	1.7	2.2	124.6	129.0	(4.4)	(3.5)
– Gold and silver and relevant products	716.5	712.8	3.7	0.5	965.5	805.9	159.6	16.5
– Electrolytic lead	504.2	607.7	(103.5)	(20.5)	578.8	606.5	(27.7)	(4.8)
– Sulfuric acid	10.7	38.7	(28.0)	(262.9)	21.9	41.7	(19.8)	(90.4)
– Others	450.7	360.7	90.0	20.0	447.5	320.3	127.2	28.4
Sub-total	5,324.8	3,627.2	1,697.6	31.9	5,666.8	3,968.5	1,698.3	30.0
International market								
– Molybdenum additive materials	32.7	39.0	(6.3)	(19.1)	33.2	29.7	3.5	10.5
– Deep-processed molybdenum products	1.8	1.7	0.1	4.9	10.9	11.0	(0.1)	(0.9)
– Copper concentrates	172.2	65.6	106.6	61.9	–	–	–	–
– Others	5.0	–	5.0	100	–	–	–	–
Sub-total	211.7	106.3	105.4	49.8	44.1	40.7	3.4	7.7
Total	5,536.5	3,733.5	1,803.0	32.6	5,710.9	4,009.2	1,701.7	29.8

For the year ended 31 December 2013, the Group recorded an operating revenue of RMB5,536.5 million, representing a decrease of RMB174.4 million or 3.1% from RMB5,710.9 million for the year ended 31 December 2012. Such decrease in operating revenue was mainly attributable to: 1) the decrease in operating revenue driven by a significant decline in the market prices of gold and silver in 2013; and 2) the decrease in operating revenue due to the decrease in the selling prices of molybdenum additive materials in this year as affected by the market prices.

For the year ended 31 December 2013, the operating cost of the Group was RMB3,733.5 million, representing a decrease of RMB275.7 million or 6.9% from RMB4,009.2 million for the same period last year. Such decrease in the operating cost was mainly attributable to the fact that the Group intensified the internal control, which lowered the cost of molybdenum concentrates, the raw materials for processing tungsten and ferromolybdenum, and decreased the selling cost.

For the year ended 31 December 2013, the average gross profit margin of the Group was 32.6%, representing an increase of 2.8% from 29.8% for the same period last year. Such increase was mainly attributable to: 1) the year-on-year increase in the gross profit margin of molybdenum additive materials following the cost reduction of molybdenum-related products as compared with the same period last year; 2) the year-on-year increase in the gross profit margin of tungsten-related products as driven by the price increase of tungsten-related products as compared with the same period last year and the cost reduction in the year; and 3) Northparkes copper and gold mine, in which the Company holds 80% equity interests, contributed RMB106.6 million to the Group's gross profit.

Business Taxes and Levies

For the year ended 31 December 2013, the Group recorded a business taxes and levies of RMB270.7 million, representing an increase of RMB1.8 million or 0.7% from RMB268.9 million for the same period in 2012, basically levelled off with that of last year.

Selling Expenses

For the year ended 31 December 2013, the selling expenses of the Group amounted to RMB26.9 million, representing an increase of RMB1.6 million or 6% from RMB25.3 million for the same period in 2012. Such increase was mainly attributable to the additional RMB6.0 million from the selling expenses of the subsidiary in Australia in the period.

Administrative Expenses

For the year ended 31 December 2013, the administrative expenses of the Group was RMB686.2 million, representing an increase of RMB252.9 million or 58.4% from RMB433.3 million for the same period in 2012. Such increase was mainly attributable to the stamp duty and professional fees, etc. of RMB298.0 million incurred for the acquisition of the business in Australia made by the Group during the period. Excluding such factors, the domestic administrative expenses decreased by RMB45.1 million as compared with the same period last year.

For the year ended 31 December 2013, the Group's administrative expenses included a technology development fee of RMB103.3 million. The main projects included: the research and production of the new type MoO3 balls (新型氧化鉬球研製), the research on the integrated technology for the intensified mining of the open pit and treatment of the open-mined areas in Sandaozhuang and specification (三道莊露天礦強化開採與空區處理一體化工藝與規範研究), the research on the application of the shortened floatation column in the selection of molybdenum (浮選柱矮化在選鉬中的應用研究) and the research on the physical and chemical properties of production backwater and its influence on the selection of molybdenum and improvement measures (生產回水的理化性質及其對選鉬效果的影響和改善措施的研究).

Finance Expenses

For the year ended 31 December 2013, the finance expenses of the Group amounted to RMB103.2 million, representing an increase of RMB53.6 million or 108.1% from RMB49.6 million for the same period in 2012. Such decrease was mainly attributable to the additional financing expenses for the overseas acquisition project and the increased interest expenses due to the medium term note of the Company.

Investment Income

For the year ended 31 December 2013, the investment income of the Group was RMB373.4 million, representing an increase of RMB222.4 million or 147% from RMB151.0 million for the same period in 2012. Such increase was mainly attributable to the income increase from the investment in treasury products and improvement in results of Yulu Company, an associated company, as compared with the same period last year.

Non-Operating Income

For the year ended 31 December 2013, the non-operating income of the Group amounted to RMB246.6 million, representing an increase of RMB192.4 million or 355% from RMB54.2 million for the same period last year. Such increase was mainly attributable to recognition of RMB200.5 million in respect of the bargain purchase generated from the acquisition of the business in Australia.

Non-Operating Expenses

For the year ended 31 December 2013, the non-operating expenses of the Group amounted to RMB20.38 million, representing an increase of RMB16.17 million or 384.09% from RMB4.21 million for the same period in 2012. Such increase was mainly due to the donations of RMB15.0 million made to Luanchuan County People's Government for poverty relief.

Income Tax Expenses

For the year ended 31 December 2013, the income tax expenses of the Group amounted to RMB151.3 million, representing an increase of RMB70.7 million or 87.7% from RMB80.6 million for the same period last year. Such increase was mainly attributable to a reverse of the income tax of 2011 due to the Company's entitlement to an income tax preferential rate of 15% recognized in last year, which decreased the figures in the same period last year, and the increase in the total profits as compared with the same period last year and the reversed deferred income tax assets including the production safety fee of domestic enterprises and provision for production maintenance fee.

Net Profit Attributable to Owners of the Parent Company

For the year ended 31 December 2013, the net profit of the Group attributable to owners of the parent company amounted to RMB1,174.2 million, representing an increase of RMB123.9 million or 11.8% from RMB1,050.3 million for the year ended 31 December 2012. Such increase was mainly attributable to an increase in the net profit for the year ended 31 December 2013.

Minority Interests

For the year ended 31 December 2013, the minority interests of the Group was RMB-89.3 million, representing a decrease of RMB55.4 million or 163% from RMB-33.9 million for the same period last year. Such decrease was mainly attributable to the decrease in the net profit of the Group's non-wholly owned subsidiaries during the year.

(III) Financial Position

As of 31 December 2013, the total assets of the Group amounted to RMB21,899.1 million, comprising non-current assets of RMB14,726.5 million and current assets of RMB7,172.6 million. Equity attributable to shareholders of the parent company as at 31 December 2013 increased by RMB636.8 million or 5.5% to RMB12,178.3 million from RMB11,541.5 million as at 31 December 2012. Such increase was mainly due to the fact that the earnings in 2013 was more than the profit distribution in the same year.

Current Assets

As of 31 December 2013, current assets of the Group decreased by RMB440.8 million or 5.8% to RMB7,172.6 million from RMB7,613.4 million as at 31 December 2012. The decrease in the current assets was mainly attributable to the decrease in the bank balances and cash due to the deposits placed by the Group for the long term borrowings of the subsidiary in Australia and CMOC Limited and the decrease in the raw materials inventories as a result of the strengthened management on the inventory liquidity of the lead smelters.

Non-Current Assets

As of 31 December 2013, the non-current assets of the Group amounted to RMB14,726.5 million, representing an increase of RMB6,590.6 million or 81.0% from RMB8,135.9 million as at 31 December 2012. The increase in the non-current assets was mainly attributable to the additional fixed assets and intangible assets of RMB4,867.9 million generated from the Group's acquisition of the business in Australia in the period and the increase in other non-current assets due to the deposits placed by the Group for the long-term borrowings of the subsidiary in Australia and CMOC Limited.

Current Liabilities

As of 31 December 2013, the current liabilities of the Group amounted to RMB2,044.0 million, representing an increase of RMB738.4 million or 56.6% from RMB1,305.6 million as at 31 December 2012. The increase in the current liabilities was mainly attributable to the additional current liabilities of RMB579.3 million generated from the acquisition of the business in Australia and the increase in the held-for-trading financial liabilities of RMB357.3 million as a result of the gold lease agreement entered into with the bank in the period.

Non-Current Liabilities

As of 31 December 2013, the non-current liabilities of the Group amounted to RMB6,962.5 million, representing an increase of RMB4,890.2 million or 236% from RMB2,072.3 million as at 31 December 2012. The increase in the non-current liabilities was mainly due to the increase in the long-term borrowings of RMB4,664.1 million following the acquisition of the business in Australia.

As at 31 December 2013, the Group had the following contingent liabilities:

On 30 January 2013, the Company received relevant documents from the Intermediate People's Court of Luoyang City, Henan Province, stating that West Lead Mine, Yangshuao, Luanchuan County (欒川縣楊樹凹西鉛礦) ("**Yangshuao**") filed a lawsuit accusing that the tailing storage built by the No. 3 Ore Processing Branch, a branch of the Company, was in its mining area. As the height of the dam of the tailing storage increased to occupy upwards and the level of the groundwater rose, the mining facilities and equipment of Yangshuao were damaged and its mining needed to be written off. The plaintiff was unable to exploit the defined lead-zinc ore and an economic loss was thus incurred. Therefore, the plaintiff contended that No. 3 Ore Processing Branch shall cease the infringement and compensate the plaintiff for a direct economic loss of approximately RMB18.0 million. The Company and its attorneys reviewed all the evidence submitted by Yangshuao and believed that the existence of the infringement claimed by the plaintiff could not be confirmed. If Yangshuao is unable to submit new evidence to the court, its claim of infringement is unlikely to be supported by the court only based on the existing evidence. Therefore, the Company currently believes that the litigation would not have any significant impact on the financial position of the Company and has not made any provision for an amount claimed in the aforesaid issue in its financial statements for the end of the period.

Gearing Ratio

The gearing ratio (total liabilities/total assets) of the Group increased to 41.1% as of 31 December 2013 from 21.4% as of 31 December 2012. The increase in the assets-liabilities ratio was mainly attributable to the increase in the long-term borrowings of the Group.

Cash Flow

As of 31 December 2013, the Group had cash and cash equivalents of RMB1,804.6 million, representing an increase of RMB341.0 million or 23.3% from RMB1,463.6 million as at 31 December 2012.

For the year ended 31 December 2013, net cash inflow generated from operating activities was RMB1,371.7 million; net cash outflow generated from investment activities was RMB4,310.4 million; net cash inflow generated from financing activities was RMB3,284.9 million, including the payment for dividends in 2012 of RMB609.14 million.

During 2013, the Group implemented strict internal management and costs saving measures, thus maintaining sound operation status and healthy financial position. As at the end of 2013, the Company had sufficient capital which enabled it to operate in a virtuous circle or satisfy the liquidity requirement for coping with the variations in the production capacity.

Exposure to Price Fluctuations of Major Products

The income of the Company is primarily from the sales of molybdenum, tungsten and copper products, including ferromolybdenum, tungsten concentrates, copper concentrates and other molybdenum products. Its operational results are mainly influenced by fluctuations in the market prices of molybdenum, tungsten and copper. In the meantime, the Company sells gold, silver and lead products. Therefore, the price fluctuations of gold, silver and lead also have an impact on the Company. Since the fluctuations of exploration and smelting are relatively not significant, the Company's profit and profit margin in the reporting period are closely related with the price trend of commodities. If the prices of molybdenum, tungsten, copper, gold, silver and lead see a significant fluctuation in the future, the operational results of the Company will become unstable. In particular, if the prices of molybdenum, tungsten and copper plummet, the operational results of the Company will be affected.

Exposure to the Mineral Resources

As an enterprise engaged in mineral exploitation, the Company is dependent on resources. The retained reserves and grade of mineral resources directly affect the Company's operation and development. The exploitation of mineral reserves with relatively low grade may be economically infeasible if the cost of production rises due to fluctuations in the market price of metal products, the drop in the recovery rate, inflation or other factors, or restrictions caused by technical problems and natural conditions such as weather and natural disasters in the process of mining. Therefore, full utilisation of the retained reserves of the Company cannot be guaranteed and the production capacity of the Company might be affected.

Exposure to Interest Rate

The exposure to interest rate of the Company is mainly related to our short-term and long-term borrowings and deposits. The outstanding liabilities of the Company are calculated based on the benchmark interest rate amended by The People's Bank of China and the London inter-bank market from time to time. As of the date of this report, the Company has not entered into any type of interest agreement or derivatives to hedge against fluctuations in interest rate or liabilities.

Exposure to Exchange Rate

The Company's principal operations are in the PRC and recorded in RMB, the lawful currency of the PRC. As the production capacity of the Group increases along with its development in the markets and recovery in the overseas markets of molybdenum, tungsten and copper, export sales to different countries by the Company or through its subsidiary will increase. On 29 September 2013, the Company provided loans of approximately USD785 million for the mergers and acquisitions of CMOC Limited and CMOC Mining (wholly-owned subsidiaries of the Company). All the assets of CMOC Mining are located in Australia, and its income is denominated in U.S. Dollar while its cost is settled in Australian Dollar. The foreign currency risks of the Company are primarily generated from the sales of products in foreign currencies and the holding of foreign assets and liabilities. Currently, the Company has no formal hedging policy in place. The Company has not entered into any foreign currency exchange contracts or derivatives to hedge against the Company's currency risks.

(IV) Employees

As at 31 December 2013, the Group had approximately 8,427 full time employees, classified as follows by function and department:

Department	Employees	Proportion
Management & administration	838	9.9%
Quality control, research and development	653	7.8%
Production	5,467	64.9%
Repair and maintenance, safety inspection and environmental protection	1,469	17.4%
Total	8,427	100%

(V) Use of Proceeds

As at 31 December 2013, the proceeds raised by the Group from the public offering of H Shares in April 2007 of approximately RMB7,694.0 million has been fully applied.

On 9 October 2012, the Group issued 200,000,000 ordinary shares (A Shares) publicly on the Shanghai Stock Exchange at an issue price of RMB3.00 per share and the proceeds raised was RMB600.0 million. Deducting the total underwriting commission of RMB30.0 million, the actual proceeds received from the above-mentioned issuance of A Shares were RMB570.0 million. After deducting other issuance expenses paid by the Company, the net actual proceeds were RMB558.1 million. The net proceeds from the initial public offering and listing of A Shares and its interests were applied in full for the acquisition of 80% interest in Northparkes Joint Venture held by North Mining Limited and certain associated rights and assets, as considered and approved on the first extraordinary general meeting in 2013 held on 25 November 2013. On 25 November 2013, the Company invested the balance of RMB571.28 million (equivalent to USD93.77 million) in the designated account for proceeds, of which USD45.8 million was used as investment cost and USD48.0 million as working capital invested in CMOC Limited, a wholly-owned subsidiary based in Hong Kong, in a one-off manner. On the same day, CMOC Limited transferred the above amount in US dollar in full into the account of CMOC Mining (a wholly-owned subsidiary in Australia), the purchasing entity for the overseas acquisition project. On 29 November 2013, the investment cost of USD45.8 million was paid to the counterparty of the overseas acquisition project as part of the transaction consideration.

As at 31 December 2013, the balance of the above accounts was RMB40,000, being interests derived from the proceeds.

(VI) Prospects

In 2014, based on the future economic and market dynamics, we will tenaciously adhere to the development strategies of the Group to achieve sustainable, rapid and sound growth. Particular efforts will be put into the following areas: 1) spare no efforts in the management over the Group's existing business segments. In 2014, the Company plans to produce approximately 15,100 tonnes of molybdenum concentrates (containing 100% MO) with a planned cash cost of production of approximately RMB67,700 per tonne (net of resource tax, depreciation and amortisation, sales and general management), and approximately 7,000 tonnes of tungsten concentrates (containing 100% WO_3) with a planned cash cost of production of approximately RMB20,100 per tonne, (net of resource tax, depreciation and amortisation, sales and general management costs); the estimated output of the Northparkes Mine in Australia in 2014: saleable Cu metal approximately 43,000 tonnes (80% basis) with C1 cash cost of USD0.7 per pound. C1 cash cost refers to the cash cost of operation, including mining, processing, site administration expense, logistics, smelting/refining costs and exploitation taxes after deduction of the earnings generated from by-products. In addition, it will further enhance its management standards and operation efficiency, and thus maintain profitability of the Company's existing business segments; 2) adhere to the development strategy of the Company. In respect of its molybdenum and tungsten business, the Company will implement projects such as optimisation of mining and processing locations as soon as possible by taking advantage of the pilot base of the integrated use of tungsten, molybdenum and iron resources in Luanchuan, Henan, so as to improve the economic benefits derived from molybdenum and tungsten sectors. As for its copper business, the Company will maintain a proper management on the operation of Northparkes copper and gold mine in Australia and improve operation quality of its offshore assets, to facilitate the stable, rapid development of the copper and gold mine and to guarantee the expected profit target

of this business segment to be achieved; 3) alter its economic growth pattern by adjusting and optimising industrial structure, vigorously conducting scientific and technological innovation and actively advocating energy-saving measures; 4) actively adjust marketing strategy endeavor to expand marketing channels and strengthen reputation and quality of its products, in a bid to increase its market shares; 5) step up human resources management, optimize the Company's talent structure and strive to attract and cultivate talents, in a bid to lay a solid talent base for future development of the Group; and 6) persist on its internationalization strategy. Leveraging on the successful acquisition of Northparkes copper and gold mine in Australia, and making the best of the experience accumulated and the international development platform provided thereof, the Company will provide better and sustained returns while expanding its size and reinforcing its risk aversion through proactive acquisition of quality mining assets with stable cash flow. In the future, the Company will continue its diversification in the field of nonferrous metal to formulate a product portfolio combining base, special and precious metals and become a world-leading mining corporation through the mergers and acquisitions of quality mining resources at home and abroad.

B. Management Discussion and Analysis of the Group for the Year ended 31 December 2014

(I) Business Review

During the reporting period, despite facing the complicated unfavourable conditions of all metal sectors and selected grading of molybdenum ores being unstable, the Company's management, under the right guidance and leadership of the Board and full support from all the society, led all the staff members to endeavour their best efforts to overcome difficulty and to achieve good performance. Through greatly implementing cost reduction and efficiency enhancement, the Company actively facilitated the development strategy, strongly promoted capital operation, continued to strengthen the establishment of internal control, continued to strengthen the management of subsidiaries and conducted in-depth anti-corruption monitoring work and a series of powerful measures. Apart from accelerating the Company's business development,

we also took further steps to cultivate corporate culture by highlighting practical and innovative management skills so as to enhance the efficiency of corporate actions. During the reporting period, the Company made significant achievement in respect of production, operation and others. The Company outperformed its peers and gained sound economic benefits and social benefits.

(II) Financial Review

For the year ended 31 December 2014, the net profit of the Group was RMB1,800.2 million, representing an increase of RMB715.3 million or 65.9% from RMB1,084.9 million for the year ended 31 December 2013. For the year ended 31 December 2014, net profit attributable to the owners of the parent company was RMB1,824.3 million, representing an increase of RMB650.1 million or 55.4% from RMB1,174.2 million for the year ended 31 December 2013, which was primarily due to: (1) the increase in profit contributed by NPM, 80% equity interest of which is held by a subsidiary of the Company as the manager to the Group compared with the same period last year; (2) the increase in revenue of equity transfer after the transfer of the subsidiary in the period; (3) the increase in the overall level of profitability resulting from changing the product structure by means of the disposal of subsidiaries and the suspension of production for repair and maintenance of Luoyang Yongning Gold & Lead Refining Co., Ltd. ("**Yongning Gold & Lead**") by the Group; and (4) the offset of adverse effects by the Group regarding the net profit affected by the decrease of market price through the measures of increase in sales and decrease in costs.

Operating Results

For the year ended 31 December 2014, the Group recorded an operating revenue of RMB6,662.4 million, representing an increase of RMB1,125.9 million or 20.3% from RMB5,536.5 million for the year ended 31 December 2013. For the year ended 31 December 2014, the gross profit of the Group was RMB2,791.0 million, representing an increase of RMB988.0 million or 54.8% from RMB1,803.0 million for the same period last year.

Operating Results, Operating Cost, Gross Profit & Gross Profit Margin by Products

The table below sets out the turnover, cost of sales, gross profit and gross profit margin of our products in 2014 and 2013:

	2014				2013			
Product Name	**Operating revenue** *(RMB million)*	**Operating cost** *(RMB million)*	**Gross profit** *(RMB million)*	**Gross profit margin** *(%)*	**Operating revenue** *(RMB million)*	**Operating cost** *(RMB million)*	**Gross profit** *(RMB million)*	**Gross profit margin** *(%)*
Domestic market								
– Molybdenum and tungsten-related products	3,558.6	1,925.6	1,632.9	45.9	3,642.7	1,907.4	1,735.3	47.6
– Gold, silver and related products	274.2	273.7	0.5	0.2	716.5	712.8	3.7	0.5
– Electrolytic lead	215.7	246.4	(30.7)	(14.2)	504.2	607.7	(103.6)	(20.5)
– Copper-related products	630.6	305.1	325.5	51.6	0.0	0.0		
– Others	474.7	405.3	69.4	14.6	461.3	399.1	62.2	13.5
Sub-total	5,153.8	3,156.2	1,997.5	38.8	5,324.7	3,627.1	1,697.6	31.9
International market								
–Molybdenum and tungsten-related products	56.5	28.7	27.9	49.3	34.5	40.7	(6.2)	(17.9)
– Copper-related products	1,418.8	686.5	732.3	51.6	172.2	65.6	106.6	61.9
– Others	33.2	0.0	33.2	100.0	5.0	0.0	5.0	100.0
Sub-total	1,508.6	715.2	793.4	52.6	211.7	106.3	105.4	49.8
Total	6,662.4	3,871.4	2,791.0	41.9	5,536.5	3,733.5	1,803.0	32.6

During the reporting period, NPM realized an income of RMB2,082.7 million in its first full year, which offset the adverse effects of the drop in tungsten and molybdenum product prices, the sale of the gold and silver businesses, and the reduction in relevant business due to Yongning Gold and Lead's suspension of production for repair and maintenance on the Company's realized income. This allowed the Company to realize an operating income of RMB6,662.4 million, which increased 20.3% from the same period last year.

During the reporting period, the sales of copper concentrates from newly acquired NPM achieved high gross profit margin of 51.6% and became a new profit growth momentum of the Company. Meanwhile, the Company decreased efforts to sell gold, silver and electrolytic lead products with lower gross profit margins, so as to achieve the structural adjustment of the Company's products and offset the adverse impact on gross profit and gross profit margin from the decline in market price. The Company effectively reduced production costs through enhancing internal management and implementing various cost control measures, which further improved the market competitiveness of molybdenum and tungsten products.

During the reporting period, the gross profit and gross profit margin of the Company were RMB2,791.0 million and 41.9% respectively, representing an increase of RMB988.0 million and 9.3 percentage points as compared with the same period last year.

The Company has adjusted the provision standard for production maintenance fee of domestic mines from RMB18 per tonne to RMB15 per tonne since 1 January 2014. As domestic mines of the Company have entered into the stage of stable mining, the balance of provision for production maintenance fee of the Company increased by RMB83.9 million as of 31 December 2014 as compared with that of the beginning of the year upon the adjustment of provision standard. According to the requirements of the accounting standards, the unused provision for production maintenance fee was directly reflected in the shareholders' equity of the Company, rather than the net profit of the Company for the year, which decreased earnings per share of the Company by RMB0.017 per share.

For the year ended 31 December 2014, the operating cost of the Group was RMB3,871.4 million, representing an increase of RMB137.9 million or 3.7% from RMB3,733.5 million for the same period last year. The effect on the operating cost caused by the increased sales volume at NPM was offset by the decrease in the sales volume of gold, silver and electrolytic lead products during the period which allowed the operating cost to remain similar to the same period last year.

Business Taxes and Levies

For the year ended 31 December 2014, the Group recorded business taxes and levies of RMB350.0 million, representing an increase of RMB79.3 million or 29.3% from RMB270.7 million for the same period in 2013, mainly due to an increase of RMB66.8 million of business taxes and levies related to NPM in this period.

Selling Expenses

For the year ended 31 December 2014, the selling expenses of the Group amounted to RMB99.8 million, representing an increase of RMB72.9 million or 270.9% from RMB26.9 million for the same period in 2013. Such increase was mainly attributable to an increase in selling expenses related to income from NPM during this period.

Administrative Expenses

For the year ended 31 December 2014, the administrative expenses of the Group was RMB448.4 million, representing a decrease of RMB237.8 million or 34.7% from RMB686.2 million for the same period in 2013. Such decrease was mainly attributable to the stamp duties and intermediary expenses of RMB298.0 million incurred in the acquisition of the business in Australia by the Group in the same period last year. No such expense incurred in this year. For the year ended 31 December 2014, the Group's administrative expenses included a technology development fee of RMB126.6 million. The main projects comprised Research on Applications of Reasonable Ore Mixing with Different Lithological Nature (不同岩性礦石合理配礦應用研究), Research on the Integrated Technology for the Intensified Mining of the Open Pit and Treatment of the Open Areas in Sandaozhuang and Specification (三道莊露天礦強化開採與空區處理一體化工藝與規範研究), Experimental Research on Processing of High Chlorite Molybdenum Raw Mines (高綠泥石鉬原礦選礦試驗研究) and Research on Improvement of the Recycle Rate of Molybdenum Roughing (提高鉬粗選作業回收率的研究) and other technical research and development.

Finance Expenses

For the year ended 31 December 2014, the finance expenses of the Group amounted to RMB181.7 million, representing an increase of RMB78.5 million or 76.0% from RMB103.2 million for the same period in 2013. Such increase was mainly attributable to interests expenses incurred from newly-added long-term borrowings in the period after the acquisition of NPM at the end of 2013.

Investment Income

For the year ended 31 December 2014, the investment income of the Group was RMB531.8 million, representing an increase of RMB158.4 million or 42.4% from RMB373.4 million for the same period in 2013. Such increase was mainly attributable to the increase in equity transfer income after the disposal of equity interests in a subsidiary during this period.

Non-Operating Income

For the year ended 31 December 2014, the non-operating income of the Group amounted to RMB66.7 million, representing a decrease of RMB179.9 million or 73.0% from RMB246.6 million for the same period last year. Such increase was mainly attributable to the recognition of RMB200.5 million in respect of the discount on acquisition of the business in Australia in the previous period. There was no such income during this period.

Non-Operating Expenses

For the year ended 31 December 2014, the non-operating expenses of the Group amounted to RMB56.8 million, representing an increase of RMB36.4 million or 178.6% from RMB20.4 million for the same period in 2013. Such increase was mainly attributable to the suspension of production for repair and maintenance of Yongning Gold & Lead and retirement of part of obsolete fixed assets during this period.

Income Tax Expenses

For the year ended 31 December 2014, the income tax expenses of the Group amounted to RMB347.9 million, representing an increase of RMB196.6 million or 130.0% from RMB151.3 million for the same period last year. Such increase was mainly attributable to the increase in total amount of profit as compared with the same period last year and a relative high income tax rate of NPM.

Net Profit Attributable to Owners of the Parent Company

For the year ended 31 December 2014, the net profit of the Group attributable to owners of the parent company amounted to RMB1,824.3 million, representing an increase of RMB650.1 million or 55.4% from RMB1,174.2 million for the year ended 31 December 2013. Such increase was mainly attributable to an increase in the net profit for the year ended 31 December 2014.

Minority Interests

For the year ended 31 December 2014, the minority interests income of the Group was RMB-24.1 million, representing an increase of RMB65.2 million or 73.1% from RMB-89.3 million for the same period last year. Such increase was mainly attributable to the decrease in loss assumed by minority shareholders during this period.

(III) Financial Position

For the year ended 31 December 2014, the total assets of the Group amounted to RMB28,054.9 million, comprising non-current assets of RMB13,290.0 million and current assets of RMB14,764.9 million. Equity attributable to shareholders of the parent company for the year ended 31 December 2014 increased by RMB2,455.3 million or 20.2% to RMB14,633.6 million from RMB12,178.3 million for the year ended 31 December 2013. Such increase was mainly due to the increase in the profit of the Company and the inclusion of the value of conversion rights into capital reserve resulting from the issuance of the A share convertible corporate bonds during the period.

Current Assets

For the year ended 31 December 2014, the current assets of the Group increased by RMB7,592.3 million or 105.9% to RMB14,764.9 million from RMB7,172.6 million for the year ended 31 December 2013. The increase in the current assets was mainly attributable to the issuance of A share convertible corporate bonds, disposal of subsidiaries and increase in bank balances and cash through production and operation during the period.

Non-Current Assets

For the year ended 31 December 2014, the non-current assets of the Group amounted to RMB13,290.0 million, representing a decrease of RMB1,436.5 million or 9.8% from RMB14,726.5 million for the year ended 31 December 2013. The decrease in the non-current assets was mainly attributable to the decrease in non-current assets after disposal of subsidiaries by the Group in this period.

Current Liabilities

For the year ended 31 December 2014, the current liabilities of the Group amounted to RMB2,999.9 million, representing an increase of RMB955.9 million or 46.8% from RMB2,044.0 million for the year ended 31 December 2013. The increase in the current liabilities was mainly attributable to the increase in short-term financing.

Non-Current Liabilities

For the year ended 31 December 2014, the non-current liabilities of the Group amounted to RMB9,910.5 million, representing an increase of RMB2,948.0 million or 42.3% from RMB6,962.5 million for the year ended 31 December 2013. The increase in the non-current liabilities was mainly due to the issuance of A share convertible corporate bonds during the period.

Contingency

As at 31 December 2014, the Group had the following contingent liabilities:

On 30 January 2013, the Company received relevant documents from the Intermediate People's Court of Luoyang City, Henan Province, stating that West Lead Mine, Yangshuao, Luanchuan County (欒川縣楊樹凹西鉛礦) ("**Yangshuao**") filed a lawsuit accusing that the tailing storage built by the No. 3 Ore Processing Branch, a branch of the Company, was in its mining area. As the height of the dam of the tailing storage grew and the level of the groundwater rose, the mining facilities and equipment of Yangshuao were damaged and its mining needed to be written off. The plaintiff was unable to exploit the defined lead-zinc ore and an economic loss was thus incurred. Therefore, the plaintiff contended that No. 3 Ore Processing Branch shall cease the infringement and compensate the plaintiff for a direct economic loss of approximately RMB18.0 million. As of 31 December 2014, the court was still reviewing the relevant litigation. The Company and its attorneys reviewed all the evidence submitted by Yangshuao and believed that the existence of the infringement claimed by the plaintiff could not be confirmed. If Yangshuao is unable to submit new evidence to the court, its claim of infringement is unlikely to be supported by the court only based on the existing evidence. Therefore, the Company currently believes that the litigation would not have any significant impact on the financial position of the Company and has not made any provision for an amount claimed in the aforesaid issue in its year-end financial statements.

The NPM business of the Group provided guarantees to government agencies of New South Wales, Australia through certain banks in relation to the operation of the business. The guarantees amounted to AUD28.38 million (equivalent to RMB142.5 million) as at 31 December 2014. The owners of the joint venture agreed with the enforcement of the guarantees arising from any obligations in relation to the business. As at 31 December 2014, no significant obligations for the guarantees occurred.

The Company provided guarantee of RMB231 million to the bank borrowing of RMB420 million from Luoyang Fuchuan, a subsidiary of the Company's joint venture, Xuzhou Huanyu Molybdenum Co., Ltd.* (徐州環宇鉬業有限公司) ("**Xuzhou Huanyu**") in accordance with its proportion of capital contribution, the term of which is from the effective date of the contract to two years after the expiry of performance of debts. The Company's management considered such financial guarantee did not have significant impact on its financial statements.

Gearing Ratio

The gearing ratio (total liabilities dividend by total assets) of the Group increased to 46.0% for the year ended 31 December 2014 from 41.1% for the year ended 31 December 2013. The increase in the gearing ratio was mainly attributable to the issuance of A share convertible corporate bonds by the Company during the period.

Cash Flow

For the year ended 31 December 2014, the Group had cash and cash equivalents of RMB5,625.6 million, representing an increase of RMB3,821.0 million or 211.7% from RMB1,804.6 million for the year ended 31 December 2013.

For the year ended 31 December 2014, net cash inflow generated from operating activities was RMB3,635.0 million; net cash outflow generated from investment activities was RMB4,079.3 million; net cash inflow generated from financing activities was RMB4,289.3 million.

During 2014, the Group implemented strict internal management and costs saving measures, thus maintaining sound operation status and healthy financial position. As at the end of 2014, the Company had sufficient capital which enabled it to operate in a virtuous cycle or satisfy the liquidity requirement for coping with the variations in the production capacity.

Exposure to Price Fluctuations of Major Products

The income of the Company primarily derived from sales of molybdenum, tungsten and copper products, including ferromolybdenum, tungsten concentrates, copper concentrates and other molybdenum products. Its operational results are mainly influenced by fluctuations in the market prices of molybdenum, tungsten and copper. At the same time, the Company also has some sales of gold, silver and lead products. Therefore, the price fluctuations in gold, silver and lead also have an impact on the Company. Since the fluctuations in exploration and smelting are relatively insignificant, the Company's profit and profit margin in the reporting period are closely related to the price trend of commodities. If there is a significant fluctuation in the prices of molybdenum, tungsten, copper, gold, silver and lead in the future, the operating results of the Company will become unstable. In particular, if the prices of molybdenum, tungsten and copper plummet, the operating results of the Company will be affected.

Exposure to the Mineral Resources

As an enterprise engaged in mineral exploitation, the Company is highly dependent on resources. The retained reserves and grade of mineral resources directly affect the Company's operation and development. The exploitation of mineral reserves with relatively low grade may be economically infeasible if the cost of production rises due to fluctuations in the market price of metal products, the drop in the recovery rate, inflation or other factors, or restrictions caused by technical problems and natural conditions such as weather and natural disasters in the process of mining. Therefore, full utilisation of the retained reserves of the Company cannot be guaranteed and the production capacity of the Company might be affected.

Exposure Related to Production Safety or Natural Disasters

The Company and all of its subsidiaries invested substantial resources on safety production, established a relatively sound management body, personnel and systems to form a relatively complete system of production safety management, prevention and supervision. However, safety incidents are unavoidable. As a mining resources development enterprise, large amounts of barren rock and tail slag are produced in the production process. If the management of slag discharge fields and tailing storage is inefficient, small scale of disaster may occur. The Company is required to use explosives in the mining process. If there are defects in the management of storage and use of such materials, there may be possible risk of causalities. In addition, tailing storage and slag discharge fields may be damaged if serious natural disaster happens such as heavy rain and debris flow.

Exposure to Interest Rate

The exposure to interest rate of the Company is mainly related to our short-term and long-term borrowings and deposits. The outstanding liabilities of the Company are calculated based on the benchmark interest rates of the People's Bank of China and the London inter-bank market as amended time to time. As of the date of this report, the Company has not entered into any type of interest agreement or derivatives to hedge against the contingent liabilities arising from fluctuations in interest rate.

Exposure to Exchange Rate

The Company's principal operations are in the PRC and recorded in RMB, the lawful currency of the PRC. As the production capacity of the Group increases along with its development in the markets and recovery in the overseas markets of molybdenum, tungsten and copper, there will be a relatively large volume of products to be exported by the Company or through its subsidiaries to different countries. As at 31 December 2014, the Company provided loans of approximately USD765 million in net balance for the mergers and acquisitions of CMOC Limited and CMOC Mining (wholly-owned subsidiaries of the Company). All the assets of CMOC Mining are located in Australia, and its income is denominated in U.S. Dollar while its cost is settled in Australian Dollar. The foreign currency risks of the Company are primarily arisen from the sales of products in foreign currencies and the holding of foreign assets and liabilities. Currently, the Company has no formal hedging policy in place. The Company has not entered into any foreign currency exchange contracts or derivatives to hedge against the Company's currency risks.

(IV) Employees

As at 31 December 2014, the Group had approximately 7,207 full-time employees, classified as follows by function and department:

Department	**Employees**	**Proportion**
Management & administration	689	9.6%
Quality control, research and development	521	7.2%
Production	4,895	67.9%
Finance, sales and other support	1,102	15.3%
Total	7,207	100%

(V) Use of Proceeds

As at 31 December 2013, the proceeds of approximately RMB7,694.0 million raised by the Group from the public offering of H Shares in April 2007 have been fully applied.

On 9 October 2012, the Group issued 200,000,000 ordinary shares (A Shares) publicly on the SSE at an issue price of RMB3.00 per share and the proceeds raised was RMB600.0 million. Deducting the total underwriting commission of RMB30.0 million, the actual proceeds received by the Company from the above-mentioned issuance of A Shares were RMB570.0 million. After deducting other issuance expenses paid by the Company, the net actual proceeds were RMB558.1 million. The net proceeds from the initial public offering and listing of A Shares and its interests were applied in full for the acquisition of 80% interest in Northparkes Joint Venture held by North Mining Limited and certain associated rights and assets, as considered and approved at the first extraordinary general meeting of the Company in 2013 held on 25 November 2013. On 25 November 2013, the Company invested the balance of RMB571.3 million (equivalent to USD93.8 million) in the designated account for proceeds, of which USD45.8 million was used as investment cost and USD48.0 million as working capital invested in CMOC Limited, a whollyowned subsidiary based in Hong Kong, in a one-off manner. On the same day, CMOC Limited transferred the above amount in US dollar in full into the account of the purchasing entity for the overseas acquisition project of CMOC Mining (a wholly-owned subsidiary in Australia). On 29 November 2013, the investment cost of USD45.8 million was paid to the counterparty of the overseas acquisition project as part of the transaction consideration.

As approved by the approval (Zheng Jian Xu Ke [2014] No. 1246) from CSRC, the Company issued A share convertible corporate bonds on 2 December 2014 with total proceeds raised of RMB4,900,000,000. After deducting the issuance fees of RMB56,452,000, the actual proceeds raised amounted to RMB4,843,548,000. The Proposal in Relation to Replacement of the Internal Financed Funds in Advance by Application of the Proceeds Raised was considered and approved in the twenty-fourth extraordinary meeting of the third session of the Board of the Company, where it was agreed to use the proceeds raised of RMB4,843,548,000 and its yields to replace the internal financed funds initially contributed to the proceeds funded projects. Until now, the Company has cancelled the special accounts for proceeds raised from initial public offering of A Shares and special accounts for proceeds raised from A share convertible corporate bonds. (Please refer to the announcements of the Company dated 18 December 2014 and 25 December 2014 for details).

As at 25 December 2014, the Company had applied all the proceeds raised from the issuance of A Shares in the initial public offering and the public issuance of A Share convertible bonds. The two abovementioned fund-raising accounts had been cancelled.

(VI) Prospects

Based on the future economic and market dynamics, we have confirmed the estimated targets: In 2015, the Company plans to produce 16,323 tonnes of molybdenum concentrates (containing 100% MO) with a planned cash cost of production of RMB63,358/tonne (net of resource tax, depreciation and amortisation, sales and general management), and 8,720 tonnes of tungsten concentrates (containing 100% WO_3) with a planned cash cost of production of RMB15,912/tonne (net of resource tax, depreciation and amortisation, sales and general management costs); the estimated output of NPM in Australia in 2015: saleable copper metal of 41,614 tonnes (calculated based on 80% of equity interests) with C1 cash cost of USD0.79/pound, and saleable gold of 39,914 ounces (calculated based on 80% of equity interests) C1 cash cost means: cash operating costs (including mining, processing, site administration expenses, logistics and smelting/refining costs) after deduction of the earnings generated from byproducts.

For the purpose of realizing the foregoing estimated targets, we will tenaciously adhere to the development strategies of the Group to achieve sustainable, rapid and sound growth in 2015. Particular efforts will be put into the following areas:

1. Spare no efforts in the operation and management over the Group's existing business segments, further enhance the level of management and operating efficiency, maintain the Company's profitability of the existing business segments and ensure that the estimated output for the entire year will be realized. As for molybdenum and tungsten business, the Company will implement projects such as optimisation of mining and processing locations as soon as possible so as to improve the economic benefits derived from molybdenum and tungsten sectors. As for copper business, the Company will maintain a proper management on the operation of NPM in Australia and improve operation quality of its offshore assets and facilitate the stable and rapid development of the copper and gold mine;

2. Continuously prepare and optimise the balance sheet, accelerate the stop-loss, profit making and disposal of invalid assets and inefficient assets, enrich the Company's cash flow, improve operation quality of assets and optimise the allocation of assets;

3. Focusing on cost reduction, optimise the technological process, vigorously conducting scientific and technological innovation, continue to develop experimental research and promotion of new process, and provide technical support for continuously reducing cost and optimising indicators;

4. Further increase the efforts put into marketing research and contribution, establish the mechanism and system of analyzing the marketing research, timely adjust the marketing strategy based on the market changes, endeavour its efforts to adjust product structure, expand marketing channels and study new means of marketing business;

5. Continuously facilitate the reform on human resources system (including personnel system, salary system, and performance system), continue to intensify the reform on leadership system, continuously enhance the energy and competitiveness of the leadership, strengthen the establishment of management talent, and lay a sound and solid talent base for future development of the Group; and

6. Continue to tenaciously implement the development strategies of the Company and fully utilize the successful experience and international reputation and influence derived from the successful acquisition and sound operation of NPM in Australia, consolidate and maintain the competitive cost advantages of the existing business, and with help of the financial strength of the Group and the management and technical teams which have rich experience earned overseas, the Company will prioritize the mergers and acquisitions of and make investment in such mature resources projects which are located at an area with political stability and have good cash flow. The Company will provide better and sustainable returns while expanding its size and reinforcing its risk aversion through proactive acquisition of quality mining assets with stable cash flow.

C. Management Discussion and Analysis of the Group for the Year ended 31 December 2015

(I) Business Review

During the reporting period, notwithstanding various adverse conditions such as the complicated and ever-changing metal market, the pressure of continued decline in the market price of molybdenum, the gradual decrease in the price of upstream and downstream products under the pressure of weakening demand for tungsten and difficulties in lowering inventory level and intense fluctuation of copper price which resulted in the continuous weak pattern in the industry, the management of the Company, under the leadership of the Board, overcame difficulties, drew on collective wisdom and ideas, and through adopting a series of effective measures including the active promotion of low-efficiency asset stripping, implementing cost reduction and efficiency increase measures, speeding up the promotion of comprehensive recovery of resources, continually strengthening the internal management and paying more efforts on employees' technical training and so forth.

(II) Financial Review

For the year ended 31 December 2015, the net profit of the Group was reduced from RMB1,800.2 million for the year ended 31 December 2014 to RMB703.1 million, representing a decrease of RMB1,097.1 million or 60.9%. For the year ended 31 December 2015, net profit attributable to the owners of the parent company was RMB761.2 million, representing a decrease of RMB1,063.1 million or 58.3% from RMB1,824.3 million for the year ended 31 December 2014. The decrease was due to the price decline of the company's major products.

Operating Results

For the year ended 31 December 2015, the Group recorded an operating revenue of RMB4,196.8 million, representing a decrease of RMB2,465.6 million or 37.0% from RMB6,662.4 million for the year ended 31 December 2014. For the year ended 31 December 2015, the gross profit of the Group was RMB1,574.4 million, representing a decrease of RMB1,216.6 million or 43.6% from RMB2,791.0 million for the same period last year.

Operating Results, Operating Cost, Gross Profit & Gross Profit Margin by Products

The table below sets out the turnover, cost of sales, gross profit and gross profit margin of our products in 2015 and 2014:

	2015				2014			
Product Name	**Operating Revenue** *(RMB million)*	**Operating Cost** *(RMB million)*	**Gross Profit** *(RMB million)*	**Gross Profit Margin** *(%)*	**Operating Revenue** *(RMB million)*	**Operating Cost** *(RMB million)*	**Gross Profit** *(RMB million)*	**Gross Profit Margin** *(%)*
Domestic market								
– Molybdenum and tungsten-related products	2,399.4	1,462.2	937.3	39.1	3,558.6	1,925.6	1,632.9	45.9
– Gold, silver and related products	0.0	0.0	0.0	0.0	274.2	273.7	0.5	0.2
– Electrolytic lead	0.0	0.0	0.0	0.0	215.7	246.4	-30.7	-14.2
– Copper-related products	463.3	299.0	164.2	35.5	630.6	305.1	325.5	51.6
– Others	296.7	208.0	88.7	29.9	474.7	405.3	69.4	14.6
Sub-total	3,159.4	1,969.2	1,190.2	37.7	5,153.8	3,156.2	1,997.5	38.8
International market								
– Molybdenum and tungsten-related products	21.7	21.0	0.7	3.1	56.5	28.7	27.9	49.3
– Copper-related products	979.5	632.2	347.3	35.5	1,418.8	686.5	732.3	51.6
– Others	36.2	0.0	36.2	100.0	33.2	0.0	33.2	100.0
Sub-total	1,037.4	653.2	384.2	37.0	1,508.6	715.2	793.4	52.6
Total	4,196.8	2,622.4	1,574.4	37.5	6,662.4	3,871.4	2,791.0	41.9

During the reporting period, due to the price decline of the major products of the Company, sales reduction of the molybdenum products, disposal of electrolytic lead, gold and silver smelting businesses, as well as other factors, the realized operating revenue of the Company was RMB4,196.8 million, representing a decrease of 37.0% as compared with the same period last year.

During the reporting period, through strengthening internal management, implementing various cost control measures, the Company has effectively reduced the production costs, offset part of the adverse impact that the Company confronted due to price decline of the major products.

During the reporting period, the gross profit of the Company was RMB1,574.4 million, representing a decrease of RMB1,216.6 million as compared with the same period last year. Although through product structural adjustment, the Company has sold the electrolytic lead, gold and silver smelting businesses that have a lower gross profit margin, the overall gross profit margin has reduced 4.4 percentage point to 37.5% as compared with the same period last year, due to the continuous decline of the market price of the major products.

For the year ended 31 December 2015, the operating cost of the Group was RMB2,622.4 million, representing a decrease of RMB1,249.0 million or 32.3% from RMB3,871.4 million for the same period last year. The main reasons include the sales decline of molybdenum product, cost decline of unit sales, sales of gold, silver and electrolytic lead business and other factors.

Business Taxes and Levies

For the year ended 31 December 2015, the Group recorded business taxes and levies of RMB242.5 million, representing a decrease of RMB107.5 million or 30.7% from RMB350.0 million for the same period in 2014, mainly due to the change of the national resources tax policy: changing from fixed levies on amounts to levies on fixed rate ad valorem, resulting the decrease in the resource tax borne by the Company, and also due to the price decline in this period's products.

Selling Expenses

For the year ended 31 December 2015, the selling expenses of the Group amounted to RMB84.7 million, representing a decrease of RMB15.1 million or 15.2% from RMB99.8 million for the same period in 2014, mainly due to the decrease in transportation fees of relevant products during this period.

Administrative Expenses

For the year ended 31 December 2015, the administrative expenses of the Group was RMB357.2 million, representing a decrease of RMB91.2 million or 20.3% from RMB448.4 million for the same period in 2014. The decrease in administrative expenses was mainly due to the completion of some technical research and development projects, representing the impact of an expense reduction in research and development compared with the same period last year, and the change in the scope of consolidation for disposing subsidiaries in 2015.

For the year ended 31 December 2015, the Group's administrative expenses included a technology development fee of RMB80.2 million. The main projects comprised Research on the Integrated Technology for the Intensified Mining of the Open Pit and Treatment of the Open Areas in Sandaozhuang and Specification (三道莊露天礦強化開採與空區處理一體化工藝與規範研究), Research on Application of Thickening of Reclaimed Water for Tungsten Processing Prior to Treatment at the Treatment Plants (選鎢回水廠前濃密應用研究), Applied Research on Improvement of Winter Recycle Rate of Molybdenum Processing (提高鎢粗選冬季回收率應用研究), Experimental Research on Improvement of Recycle Rate of Molybdenum Roughing (提高鎢粗選回收率試驗研究), Ore-dressing Technical Development Research on Tungsten Fluorite Flotation Tailings Comprehensive Recovery (鎢浮選尾礦螢石綜合回收選礦技術開發研究) and other projects of the Group.

Finance Expenses

For the year ended 31 December 2015, the finance expenses of the Group amounted to RMB46.2 million, representing a decrease of RMB135.5 million or 74.6% from RMB181.7 million for the same period in 2014. Mainly due to the increase of the structured deposit, the respective interest income of the Company increased during the period.

Investment Income

For the year ended 31 December 2015, the investment income of the Group was RMB116.6 million, representing a decrease of RMB415.2 million or 78.1% from RMB531.8 million for the same period in 2014, mainly due to in the same period of last year, a rather significant increase in equity transfer income after the disposal of equity interests in a subsidiary.

Non-Operating Income

For the year ended 31 December 2015, the non-operating income of the Group amounted to RMB50.2 million, representing a decrease of RMB16.5 million or 24.8% from RMB66.7 million for the same period of 2014, mainly due to a decrease of RMB17.6 million in profits of disposal of non-current assets as compared with the same period of last year.

Non-Operating Expenses

For the year ended 31 December 2015, the non-operating expenses of the Group amounted to RMB94.6 million, representing an increase of RMB37.8 million or 66.6% from RMB56.8 million for the same period in 2014. Such increase was mainly attributable to the exemption of Luoyang Kunyu Mining Co., Ltd. (the "**Kunyu Mining**") dividends receivable for RMB28.5 million during this period.

Income Tax Expenses

For the year ended 31 December 2015, the income tax expenses of the Group amounted to RMB-20.3 million, representing a decrease of RMB368.2 million or 105.8% from RMB347.9 million for the same period of 2014. Such decrease was mainly due to the decrease in profit in this period as compared with the same period last year and the recognised deductible loss in equity and debt arising from the disposal of Luomu Precious Metals and Yongning Gold & Lead during the period.

Net Profit Attributable to Owners of the Parent Company

For the year ended 31 December 2015, the net profit of the Group attributable to owners of the parent company amounted to RMB761.2 million, representing a decrease of RMB1,063.1 million or 58.3% from RMB1,824.3 million for the year ended 31 December 2014. Such decrease was mainly due to a decrease in the net profit for the year ended 31 December 2015.

Minority Interests

For the year ended 31 December 2015, the minority interests of the Group were RMB-58.1 million, representing a decrease of RMB34.0 million or 141.3% from RMB-24.1 million for the same period last year. Such decrease was mainly due to the increase in loss assumed by minority shareholders during this period.

(III) Financial Position

For the year ended 31 December 2015, the total assets of the Group amounted to RMB30,880.5 million, comprising non-current assets of RMB15,148.7 million and current assets of RMB15,731.8 million. Equity attributable to shareholders of the parent company for the year ended 31 December 2015 increased by RMB2,719.9 million or 18.6% to RMB17,353.5 million from RMB14,633.6 million for the year ended 31 December 2014. Such increase was mainly due to the conversion of the A share convertible corporate bonds issued at the end of 2014.

Current Assets

For the year ended 31 December 2015, the current assets of the Group increased by RMB966.9 million or 6.6% to RMB15,731.8 million from RMB14,764.9 million for the year ended 31 December 2014. The increase in the current assets was mainly attributable to the increase in monetary fund resulting from operation of production and issuance of short-term financing bonds.

Non-Current Assets

For the year ended 31 December 2015, the non-current assets of the Group amounted to RMB15,148.7 million, representing an increase of RMB1,858.7 million or 14.0% from RMB13,290.0 million for the year ended 31 December 2014. The increase in the non-current assets was mainly attributable to the increase in foreign equity investment and asset management plan by the Group in this period.

Current Liabilities

For the year ended 31 December 2015, the current liabilities of the Group amounted to RMB8,768.9 million, representing an increase of RMB5,769.0 million or 192.3% from RMB2,999.9 million for the year ended 31 December 2014. The increase in the current liabilities was mainly attributable to the increase in short-term financing and long-term loans due within one year.

Non-Current Liabilities

For the year ended 31 December 2015, the non-current liabilities of the Group amounted to RMB4,294.9 million, representing a decrease of RMB5,615.6 million or 56.7% from RMB9,910.5 million for the year ended 31 December 2014. The decrease in the noncurrent liabilities was mainly due to the issuance of A share convertible corporate bonds in 2014 and the transference of long-term loans due within one year into current liabilities.

Contingency

As at 31 December 2015, the Group had the following contingent liabilities:

On 30 January 2013, the Company received relevant files from the Intermediate People's Court of Luoyang City, Henan Province, stating that West Lead Mine, Yangshuao, Luanchuan County (欒川縣楊樹凹西鉛礦) ("**Yangshuao**") filed a lawsuit accusing that the tailing storage built by the No. 3 Ore Processing Branch, a branch of the Company, was in its mining area. As the height of the dam of the tailing storage grew and the level of the groundwater rose, the mining facilities and equipment of Yangshuao were damaged and its mining needed to be written off. The plaintiff was unable to exploit the defined lead-zinc ore and an economic loss was thus incurred. Therefore, the plaintiff contended that No. 3 Ore Processing Branch shall cease the infringement and compensate the plaintiff for a direct economic loss of approximately RMB18.0 million and loss of obtainable profits. According to the results of judiciary appraisal, the assessed value of the mining rights of Yangshuao related to this litigation is RMB1.724 million.

The first instance of the case started in December 2015. The trial has now completed but the court judgment is pending. The Company is of the opinion that, in accordance with the existing situation and the submitted evidence, the existence of tort alleged by Yangshuao cannot be confirmed; meanwhile, the Company has filed a counterclaim, requesting the court, in accordance with law, to order the immediate cessation of tort infringed by Yangshuao against the Company's land use rights within the aforementioned range of mining area. The Company currently believes that the litigation would not have any significant impact on the financial position of the Company and has not made any provision for an amount claimed in the aforesaid issue in its year-end financial statements.

The NPM business of the Group provided guarantees to government agencies of New South Wales, Australia through certain banks in relation to the operation of the business. The guarantees amounted to AUD28.38 million (equivalent to RMB134.6 million) as at 31 December 2015. The owners of the joint venture agreed with the enforcement of the guarantees arising from any obligations in relation to the business.

As at 31 December 2015, no significant obligations for the guarantees occurred. As at 31 December 2015, the Company provided the maximum guarantee of RMB148.5 million in aggregate to Luoyang Fuchuan, a subsidiary of the Company's joint venture, Xuzhou Huanyu Molybdenum Co., Ltd.* (徐州環宇鉬業有限公司) ("**Xuzhou Huanyu**") in accordance with its proportion of capital contribution, the term of which is from the effective date of the contract to two years after the expiry date of performance of debts. The Company's management considered such financial guarantee did not have significant impact on its financial statements.

Gearing Ratio

The gearing ratio (total liabilities divided by total assets) of the Group decreased to 42.3% for the year ended 31 December 2015 from 46.0% for the year ended 31 December 2014. The decrease in the gearing ratio was mainly due to the issuance of A share convertible corporate bonds by the Company in 2014.

Cash Flow

For the year ended 31 December 2015, the Group had cash and cash equivalents of RMB8,982.2 million, representing an increase of RMB3,356.6 million or 59.7% from RMB5,625.6 million for the year ended 31 December 2014. For the year ended 31 December 2015, net cash inflow generated from operating activities was RMB1,358.8 million; net cash outflow generated from investment activities was RMB-165.5 million; net cash inflow generated from financing activities was RMB2,074.2 million. During 2015, the Group implemented strict internal management and costs saving measures, thus maintaining sound operation status and healthy financial position. As at the end of 2015, the Company had sufficient capital which enabled it to operate in a virtuous cycle or satisfy the liquidity requirement for coping with the variations in the production capacity.

Exposure to Risks Related to Price Fluctuations of Major Products

The income of the Company primarily derived from sales of molybdenum, tungsten and copper products, including ferromolybdenum, tungsten concentrates, copper concentrates and other molybdenum products. Its operational results are mainly influenced by fluctuations in the market prices of molybdenum, tungsten and copper. At the same time, the NPM copper and gold mine of the Company also has certain ancillary business of sales of gold. The price fluctuations in gold also have an impact on the Company. Since the fluctuations in exploration and smelting of relevant resources are relatively insignificant, the Company's profit and profit margin in the reporting period are closely related to the price trend of commodities. If there is a significant fluctuation in the prices of molybdenum, tungsten, copper and gold in the future, the operating results of the Company will become unstable. In particular, if the prices of molybdenum, tungsten and cop-per plummet, the operating results of the Company will fluctuate significantly.

Exposure to Risks Related to Reliance on Mineral Resources

As the primary operation of the Company is mineral resources exploitation, the Company is highly dependent on mineral resources. The retained reserves and grade of mineral resources directly affect the Company's operation and development. The exploitation of mineral reserves with relatively low grade may be economically infeasible if the cost of production rises due to fluctuations in the market price of metal products, the drop in the recovery rate, inflation or other factors, or restrictions caused by technical problems and natural conditions such as weather and natural disasters in the process of mining. Therefore, full utilization of the retained reserves of the Company cannot be guaranteed and the production capacity of the Company might be affected.

Exposure to Risks Related to Production Safety or Natural Disasters

The Company and all of its subsidiaries invested substantial resources on safety production, established a relatively sound management body, personnel and systems and continuously push forward the safety standardization management to form a relatively complete system of production safety management, prevention and supervision. However, safety incidents are unavoidable. As a mining resources development enterprise, large amounts of barren rock and tail slag are produced in the production process. If the management of slag discharge fields and tailing storage is inefficient, small scale of disaster may occur. The Company is required to use explosives in the mining process. If there are defects in the management of storage and use of such materials, there may be possible risk of causalities. In addition, tailing storage and slag discharge fields may be damaged if serious natural disaster happens such as heavy rain and debris flow.

Exposure to Risks Related to Interest Rate

The exposure to interest rate of the Company is mainly related to our short-term and long-term borrowings and deposits. The outstanding liabilities of the Company are calculated based on the benchmark interest rates of the People's Bank of China and the London inter-bank market as amended time to time. As of the date of this report, the Company has not entered into any type of interest agreement or derivatives to hedge against the contingent liabilities arising from fluctuations in interest rate.

Exposure to Risks Related to Exchange Rate

The Company's principal domestic business operation is denominated in RMB and the reporting currency is RMB, the lawful currency of the PRC. As the production capacity of the Company increases along with its development in the markets and recovery in the overseas markets of molybdenum, tungsten and copper, there will be abundant products exported by the Company or through its subsidiaries to different countries. As at 31 December 2015, the balance of loans for the mergers and acquisitions of CMOC Limited and CMOC Mining Pty Limited (wholly-owned subsidiaries of the Company) were approximately EUR276 million and USD379 million, respectively. All the assets of CMOC Mining Pty Limited are located in Australia, and the functional currency was U.S. Dollar. The exchange rate risks of the Company are primarily arising from assets and liabilities held in foreign currencies other than the function currency. Therefore, the risk, arising from the change in exchange rate, which the Company was exposed to was not substantial. Currently, the Company has no formal corresponding hedging policy in place and has no derivatives to hedge against the Company's currency risks.

(IV) Employees

As at 31 December 2015, the Group had approximately 6,389 full-time employees, classified as follows by function and department:

Department	Employees	Proportion
Management & administration	600	9.4%
Quality control, research and development	1,033	16.2%
Production	4,108	64.3%
Finance, sales and other support	648	10.1%
Total	6,389	100%

(V) Prospects

Based on the future economic and market dynamics, we have confirmed the estimated targets: In 2016, the Company plans to produce 16,058 tons of molybdenum concentrates (containing 100% MO) with a planned cash cost of production of 56,298/ton (net of resource tax, depreciation and amortization, sales and general management), and 8,850 tons of tungsten concentrates (containing 100% WO_3) with a planned cash cost of production of 14,879/ton (net of resource tax, depreciation and amortization, sales and general management costs); the estimated output of NPM copper-gold mine in Australia in 2016 calculated based on 80% of equity interests: saleable copper metal of 39,368 tons with C1 cash cost of USD0.77/pound, and saleable gold of 35,053 ounces C1 cash cost means: cash operating costs (including mining, processing, site administration expenses, logistics and smelting/refining costs) after deduction of the earnings generated from byproducts.

For the purpose of realizing the foregoing estimated targets, in 2016, the Company will actively respond to the opportunities and challenges brought by the fluctuation in the market price of molybdenum, tungsten, copper and gold and proactively optimize the product structure in order to balance the production and sales and maximize the revenue. Leveraging the advantages in scale, value chain, capital and market and financing platform in capital market, the Company will tap into both internal potentiality and seek merging and acquisition of international advanced resources with advantages in management, technology and capital as a support. The Company will further enhance the Company's comprehensive ability and profitability and accelerate the pace of the Company's internationalization strategy with a cultivation of new driver for economic growth in order to generate a more adequate return for shareholders. The operation level will focus on the following tasks:

1. To consolidate the competitive advantages of cost of molybdenum and tungsten businesses, actively promote the technological advancement and structural adjustment to create a strong momentum for further development, achieve further optimization of the processing business and asset layout in Luanchuan area, and enhance the construction of automation, informatization, standardization;

2. To continue to advance the non-core assets stripping, simplify the corporate structure and optimize the balance sheet;

3. To vigorously promote the integrated industrial progress of polymetalic resources recycling and reusing so as to nurture and stabilize a new economic growth point;

4. To further promote the management work including benchmarking management, standardization management, improving and strengthening quality management, cost management, informatization management, investment management, risk management, human resources management, standardization construction and corporate cultural construction to promote the upgrading of the Company's management;

5. To strengthen the establishment of safety and management system, firmly promote the implementation of Ten Standards of Safety Management, vigorously foster all staff with safety culture to raise safety awareness;

6. To speed up the promotion and integration of the advanced management and technology in Australia, achieve synergistic effect at home and abroad and consolidate the internationalized management foundation of the company;

7. To use the cyclical opportunity brought by the bulk commodities and search for merger and acquisition of high-quality overseas resources items in a proactive and cautious manner; and

8. To establish a sound corporate market value management system in a bid to improve the management level and actively safeguard the interests of investors.

D. Management Discussion and Analysis of the Group for the Six Months ended 30 June 2016

(I) Business Review

During the reporting period, various metal markets mainly operated by the Company were stable and even rebounded. However, the overall market environment was still complicated and ever-changing with larger fluctuations. The overcapacity of the molybdenum and tungsten markets remained to alleviate in the short run. The upstream industries such as steel and hard alloy were experiencing in-depth structural adjustment, which was yet to come into effect, therefore the market demand was hard to witness a prominent increase. While copper market ended the trend of successive decline, affected by various factors including political and economic environment, its fluctuations intensified and the demand remained weak during the reporting period. Despite of the complicated and changing market environment, the management of the Company still ensure the carrying out of production and operating activities of the Company in an orderly manner through a series of effective measures such as accelerating the implementation of international strategies, enhancing the internal improvement and technological innovation, vigorously implementing cost reduction and efficiency promotion and strengthening internal management, thereby achieving distinct achievement of various works.

(II) Financial Review

Overview

For the six months ended 30 June 2016, the net profit of the Group increased from RMB437.5 million as at 30 June 2015 to RMB501.6 million, increased by RMB64.1 million or 14.7%. For the six months ended 30 June 2016, net profit attributable to the owners of the parent company was RMB511.9 million, representing an increase of RMB48.9 million or 10.6% from RMB463.0 million for the six months ended 30 June 2015, which was primarily because the Company consolidated its quality of assets through continuous stripping of non-core and low-efficient assets, and implemented various measures simultaneously to continuously promote cost reduction and efficiency increase measures, manifesting good results during the period.

Operating Results

The operating revenue of the Group decreased by RMB9.4 million or by 0.4% from RMB2,269.3 million as of 30 June 2015 to RMB2,259.9 million as of 30 June 2016. For the six months ended 30 June 2016, the gross profit of the Group was RMB852.0 million, representing a decrease of RMB88.3 million or 9.4% from RMB940.3 million for the same period last year.

Operating Income, Operating Costs, Gross Profit and Gross Profit Margin by Products

The table below sets out the operating income, operating costs, gross profit and gross profit margin of our products in the first half of 2016 and the same period of 2015:

	First half of 2016				First half of 2015			
Product Name	**Operating revenue** *(RMB million)*	**Operating cost** *(RMB million)*	**Gross profit** *(RMB million)*	**Gross profit margin** *(%)*	**Operating revenue** *(RMB million)*	**Operating cost** *(RMB million)*	**Gross profit** *(RMB million)*	**Gross profit margin** *(%)*
Domestic market								
– Molybdenum and tungsten-related products	1,399.7	792.4	607.3	43.4	1,265.6	723.8	541.8	42.8
– Copper-related products	139.1	104.7	34.4	24.7	99.2	57.9	41.3	41.6
– Others	136.5	87.7	48.8	35.7	167.9	116.1	51.9	30.9
Sub-total	1,675.3	984.8	690.5	41.2	1,532.7	897.8	634.9	41.4
International market								
– Molybdenum and tungsten-related products	21.4	15.1	6.3	29.4	4.6	3.8	0.8	17.6
– Copper-related products	541.7	408.0	133.7	24.7	717.2	427.4	289.7	40.4
– Others	21.5	0.0	21.5	100.0	14.8	14.8	100.0	100.0
Sub-total	584.6	423.1	161.5	27.6	736.6	431.1	305.4	41.5
Total	2,259.9	1,407.9	852.0	37.7	2,269.3	1,329.0	940.3	41.1

During the reporting period, due to various factors such as the fall of the prices of the main products of the Company, operating income of the Company decreased by 0.4% as compared with the same period last year. During the reporting period, the Company implemented various cost control measures through strengthening internal management so as to reduce production cost of molybdenum and tungsten products and partly offset the negative impact from the decline in prices of major products.

During the reporting period, gross profit of the Company was RMB852.0 million, representing a decrease by RMB88.3 million as compared with the same period last year. The overall gross profit margin decreased by 3.7 percentage points as compared with the same period last year.

Business Taxes and Levies

For the six months ended 30 June 2016, the Group recorded business taxes and levies of RMB85.4 million, representing a decrease of RMB38.4 million or 31.0% from RMB123.8 million for the same period in 2015, mainly due to the adoption of tax levies at the ad valorem rate for the national tax policy of resources tax since 1 May 2015, resulting in a lower price of molybdenum products.

Selling Expenses

For the six months ended 30 June 2016, the selling expenses of the Group amounted to RMB37.3 million, representing a decrease of RMB6.1 million or 14.1% from RMB43.4 million for the same period in 2015. Such decrease was mainly attributable to a decrease in selling expenses for the period.

Administrative Expenses

For the six months ended 30 June 2016, the administrative expenses of the Group were RMB181.2 million, representing an increase of RMB28.4 million or 18.6% from RMB152.8 million for the same period in 2015. Such increase was mainly attributable to the increase in advisory expenses and technology research and development expenses as compared with the same period last year.

For the six months ended 30 June 2016, the Group's administrative expenses included a technology development fee of RMB35.7 million. Main projects included: Experimental Research on High Concentration Flotation Processing of Wolframine (白鎢精選高濃度浮選法試驗研究), Experiment and Research on Impacts of Condensed Current before Processing on Molybdenum Processing Plants (廠前濃縮流水對鉬選礦影響的實驗研究), Development and Application Research on New Model of Copper-Molybdenum Separation Inhibitors (新型銅鉬分離抑制劑的開發應用研究), Experiment and Research on Enhancement of Processing Capacity of Overflow Mill (提高溢流型磨機處理量的實驗研究), Research on Applications of the Ten-thousand-tone System for Comprehensive Recovery of Copper (萬噸系統銅綜合回收應用研究) and other technical research and development.

Finance Expenses

For the six months ended 30 June 2016, the finance expenses of the Group amounted to RMB89.0 million, representing a decrease of RMB72.2 million or 44.8% from RMB161.2 million for the same period in 2015. Such decrease was mainly attributable to the interest amortisation of convertible corporate bonds in the corresponding period last year where there is no such impact during the period.

Investment Income

For the six months ended 30 June 2016, the investment income of the Group was RMB139.5 million, representing an increase of RMB37.7 million or 37.0% from RMB101.8 million for the same period in 2015, which was mainly attributable to the revenue generated form the disposal of available-for-sale financial assets by the Group during the period.

Non-Operating Income

For the six months ended 30 June 2016, the non-operating income of the Group amounted to RMB3.5 million, representing a decrease of RMB12.9 million or 78.7% from RMB16.4 million for the same period last year. Such decrease was mainly attributable to the significant decrease in government grants as compared with the same period last year.

Non-Operating Expenses

For the six months ended 30 June 2016, the non-operating expenses of the Group amounted to RMB19.9 million, representing a decrease of RMB37.9 million or 65.6% from RMB57.8 million for the same period last year. Such decrease was mainly attributable to the significant decrease in losses from disposal of non-current assets as compared with the same period last year.

Income Tax Expenses

For the six months ended 30 June 2016, the income tax expenses of the Group amounted to RMB93.9 million, representing an increase of RMB139.9 million or 304.1% from RMB-46.0 million for the same period last year, which was mainly attributable to the increase in total profit for the period.

Net Profit Attributable to Owners of the Parent Company

For the six months ended 30 June 2016, the net profit of the Group attributable to owners of the parent company represented an increase of RMB48.9 million or 10.6% from RMB463.0 million for the six months ended 30 June 2015, to RMB511.9 million for the six months ended 30 June 2016. Such increase was mainly attributable to an increase in the net profit for the six months ended 30 June 2016.

Profit or Loss Attributable to Minority Interests

For the six months ended 30 June 2016, profit or loss attributable to the minority interests of the Group was RMB-10.3 million, representing an increase of RMB15.2 million or 59.6% from RMB-25.5 million for the same period last year, which was mainly attributable to the decrease in loss assumed by minority shareholders during this period.

(III) Financial Position

For the six months ended 30 June 2016, the total assets of the Group amounted to RMB34,334.4 million, comprising non-current assets of RMB15,866.0 million and current assets of RMB18,468.4 million. Equity attributable to shareholders of the parent company as of 30 June 2016 decreased by RMB33.8 million or 0.2% to RMB17,319.7 million from RMB17,353.5 million as of 31 December 2015. Such decrease was mainly due to the declaration of final dividend for the year 2015 during the period.

Current Assets

For the six months ended 30 June 2016, the current assets of the Group increased by RMB2,736.6 million or 17.4% to RMB18,468.4 million from RMB15,731.8 million for the year ended 31 December 2015. The increase in the current assets was mainly attributable to the increase in monetary funds through medium-term notes and short-term financing by the Company during the period.

Non-Current Assets

For the six months ended 30 June 2016, the non-current assets of the Group amounted to RMB15,866.0 million, representing an increase of RMB717.2 million or 4.7% from RMB15,148.8 million for the year ended 31 December 2015. The increase in the noncurrent assets was mainly attributable to the increase in the foreign equity investment by the Group during the period.

Current Liabilities

For the six months ended 30 June 2016, the current liabilities of the Group amounted to RMB9,346.1 million, representing an increase of RMB577.2 million or 6.6% from RMB8,768.9 million for the year ended 31 December 2015. The increase in the current liabilities was mainly attributable to the increase in short-term financing during the period and the declaration of final dividend for the year 2015.

Non-Current Liabilities

For the six months ended 30 June 2016, the non-current liabilities of the Group amounted to RMB7,215.3 million, representing an increase of RMB2,920.4 million or 68.0% from RMB4,294.9 million for the year ended 31 December 2015. The increase in the noncurrent liabilities was mainly due to the increase in borrowings of financial institutes and medium-term notes during the period.

Contingent Liabilities

The NPM business of the Group provided guarantees to government agencies of New South Wales, Australia through certain banks in relation to the operation of the business. The guarantees amounted to AUD28.66 million (equivalent to RMB141.7 million) as of 30 June 2016. The owners of the joint venture agreed with the enforcement of the guarantees arising from any obligations in relation to the business. As of 30 June 2016, no significant obligations for the guarantees occurred.

Gearing Ratio

The gearing ratio (total liabilities dividend by total assets) of the Group increased to 48.2% for the year ended 30 June 2016 from 42.3% for the year ended 31 December 2015. The increase in the gearing ratio was mainly attributable to the increase in the medium-term notes and short-term financing of the Company during the period and the declaration of final dividend for the year 2015.

Cash Flow

For the six months ended 30 June 2016, the Group had cash and cash equivalents of RMB12,343.7 million, representing an increase of RMB3,361.5 million or 37.4% from RMB8,982.2 million for the year ended 31 December 2015.

For the six months ended 30 June 2016, net cash inflow generated from operating activities was RMB535.0 million; net cash inflow generated from investment activities

was RMB640.3 million; net cash inflow generated from financing activities was RMB2,169.9 million.

In 2016, the Group implemented strict internal management and cost saving measures, thus maintaining sound operation status and healthy financial position. As of 30 June 2016, the Company had sufficient cash which enabled it to operate in a virtuous cycle or to satisfy the liquidity requirement for coping with the variations in the production capacity.

Exposure to Risks Related to Price Fluctuations of Major Products

The income of the Company was primarily derived from sales of molybdenum, tungsten and copper products, including ferromolybdenum tungsten concentrates, copper concentrates and other molybdenum products. Its operational results are mainly influenced by fluctuations in the market prices of molybdenum, tungsten and copper. At the same time, the NPM copper and gold mine of the Company also has certain ancillary business of sales of gold. The price fluctuations in gold also have an impact on the Company. Since the fluctuations in exploration and smelting costs of relevant resources are relatively insignificant, the Company's profit and profit margin in the reporting period are closely related to the price trend of commodities. If there is a significant fluctuation in the prices of molybdenum, tungsten, copper and gold in the future, the operating results of the Company will become unstable. In particular, if the prices of molybdenum, tungsten and copper plummet, there will be a relatively significant fluctuation in the operating results of the Company.

Exposure to Risks Related to Reliance on Mineral Resources

As the primary operation of the Company is mineral resources exploitation, the Company is highly dependent on mineral resources. The retained reserves and grade of mineral resources directly affect the Company's operation and development.

The exploitation of mineral reserves with relatively low grade may be economically infeasible if the cost of production rises due to fluctuations in the market price of metal products, the drop in the recovery rate, inflation or other factors, or restrictions caused by technical problems and natural conditions such as weather and natural disasters in the process of mining. Therefore, full utilization of the retained reserves of the Company cannot be guaranteed and the production capacity of the Company might be affected.

Exposure to Risks Related to Production Safety or Natural Disasters

The Company and all of its subsidiaries invested substantial resources on safety production, established a relatively sound management body, personnel and systems and continuously push forward the safety standardization management to form a relatively complete system of production safety management, prevention and supervision. However, safety incidents are unavoidable. As a mining resources development enterprise, large amounts of barren rock and tail slag are produced in the production process. If the management of slag discharge fields and tailing storage is inefficient, small scale of disaster may occur. The Company is required to use explosives in the mining process. If there are defects in the management of storage and use of such materials, there may be possible risk of causalities. In addition, tailing storage and slag discharge fields may be damaged if serious natural disaster happens such as heavy rain and debris flow.

Exposure to Risks Related to Interest Rate

The exposure to interest rate of the Company is mainly related to our short-term and long-term borrowings and deposits. The outstanding liabilities of the Company are calculated based on the benchmark interest rates of the People's Bank of China and the London inter-bank market as amended from time to time. As of the date of this report, the Company has not entered into any type of interest agreement or derivatives to hedge against the contingent liabilities arising from fluctuations in interest rate.

Exposure to Risks Related to Exchange Rate

The principal domestic business operations of the Company are denominated in RMB and the currency used in the accounts is also RMB, the lawful currency of the PRC. The subsidiaries of the Company located in Australia principally adopt AUD or USD as the basis for price calculations and settlement. As at the end of the reporting period, there were still outstanding loans denominated in foreign currency and the consideration of overseas acquisition projects announced by the Company during the reporting period was paid in USD, and thus, the exchange rate risks exposed are mainly associated with USD, HKD, AUD and EUR.

However, the exposure of the Company to the risks arising from changes in the exchange rates is not high and the foreign currency transactions of the Group are mainly the financing activities which are denominated and settled in USD and EUR and the AUD denominated assets held by the subsidiaries in Australia whose functional currency is USD. Currently, the Company has no corresponding formal hedging policy or derivate instruments in place to hedge against the Company's currency risks.

(IV) Material Events

In addition to the proposed transactions as detailed in this circular:

1. *Purchase of Material Assets (Acquisition of Overseas Copper and Cobalt Businesses)*

   On 9 May 2016, Hong Kong CMOC and the Company (as the guarantor of Hong Kong CMOC) had executed the Stock Purchase Agreement in relation to the transaction with the counterparties Phelps Dodge Katanga Corporation and Freeport-McMoRan Inc. according to the authorization from the Board upon the consensus with Freeport.

   For further details, please refer to the interim report of the Company for the six months ended 30 June 2016.

2. *Non-Public Issuance of A Shares*

   On 20 May 2016, "Resolution in Relation to the Satisfaction of the Conditions of the Non-public Issuance of A Shares of the Company" (《關於公司符合非公開發行A股股票條件的議案》) and "Resolution in Relation to the Proposal of the Nonpublic Issuance of Shares of the Company" (《關於公司非公開發行股票方案的議案》) and other resolutions involved in nonpublic matters were considered and approved on the eighth extraordinary meeting of the fourth session of the Board of the Company; and "Resolution in relation to the Proposal on the Non-public Issuance of A Shares of China Molybdenum Co., Ltd.*" (《洛陽欒川鉬業集團股份有限公司非公開發行A股股票預案》) was published.

   On 8 August 2016, the "Resolution in relation to the Adjustment of the Proposal on the Nonpublic Issuance of A Shares of the Company" (《關於調整公司本次非公開發行A股股票方案的議案》) and other matters in relation to non-public issuance of shares were considered and approved at the 13th extraordinary meeting of the fourth session of the Board of the Company, and "Resolution in relation to the Proposal on the Non-public Issuance of A Shares of China Molybdenum Co., Ltd.* (Revised Version)" (《洛陽欒川鉬業集團股份有限公司非公開發行A股股票預案(修訂稿)》) was disclosed. Meanwhile the Company issued the notice of general meeting to be held on 23 September 2016 to convene the 2016 third extraordinary general meeting, 2016 second of A shareholders' class meeting and 2016 second H shareholders' class meeting for the consideration of the matter of non-public issuance of A shares of the Company.

3. On 21 March 2016, the Company published the announcement of "Result of the Issuance of 2016 First Tranche Medium-Term Notes". On 21 March 2016, the Company successfully issued the 2016 first tranche Medium-term Notes in the amount of RMB2 billion, for a term of 5 years and an issuance interest rate of 4.22%. On 29 February 2016, the Company published the "Announcement of the Results of Issuance of the 2016 First Tranche Short-term Financing Instruments". On 26 February 2016, the Company successfully issued the 2016 first tranche of short-term financing instruments in the amount of RMB500 million for a term of one year at an issuance interest rate of 3.18%. The proceeds raised from the issue of the Medium-term Notes and short-term financing instruments were mainly used to repay a portion of the bank loans of the Company and replenish the working capital of the Company's headquarter.

4. On 24 May 2015, the Company published the announcement in relation to "the Cancellation of Remaining Registered Balance of Medium-Term Notes". On 24 May 2016, the Company received the "Letter in Relation to the Reduction of Registered Balance of Medium-Term Notes of China Molybdenum Co., Ltd.*" (Zhong Shi Xie Han [2016] MTN No. 427) (《關於核減洛陽欒川鉬業集團股份有限公司中期票據註冊金額的函》(中市協函[2016] MTN 427號)) from the National Association of Financial Market Institutional Investors on 18 May 2016, which approved to conduct the remaining registered balance of medium-term notes of RMB2 billion under the Notice of Acceptance for Registration (Zhong Shi Xie Zhu [2015] MTN No. 467) (中市協註[2015] MTN467號《接受註冊通知書》).

5. On 20 June 2016, the Company published the Announcement on External Guarantee of China Molybdenum Co., Ltd. (《洛陽欒川鉬業集團股份有限公司對外擔保公告》), which provided its wholly-owned subsidiary Hong Kong CMOC with the aggregate guarantee amount of RMB1.7 billion.

(V) Employees

As at 30 June 2016, the Group had approximately 6,428 full-time employees, classified by function and department as follows:

Department	Employees	Proportion
Management & administration	604	9.4%
Quality control, research and development	995	15.5%
Production	4,239	65.9%
Finance, sales and other support	590	9.2%
Total	6,428	100%

(VI) Prospects

In the second half of 2016, the management of the Company will proactively respond to opportunities and challenges brought about by the fluctuations in market price with orientation on the market and grasp of the pace of sales, and endeavor to achieve a balance between production and sales as well as the maximization of profit; proactively promote the completion and smooth process of overseas acquisition projects; and proactively optimize the product structure with structural adjustments and changes in growth pattern which will serve as the main drivers for growth and support from construction of major projects in order to further enhance its comprehensive strengths and profitability to achieve better return to shareholders while enhancing the internal management.

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ACCOUNTANTS' REPORT ON THE NIOBIUM BUSINESS

8 September 2016

The Directors
China Molybdenum Co., Ltd

Dear Sirs,

We set out below our report on the financial information (the "**Financial Information**") of the Niobium Business (as defined below), which is proposed to be sold by Anglo American plc's wholly-owned subsidiary Ambras Holdings Limited ("**Ambras**") as vendor and acquired by China Molybdenum Co., Ltd. ("**CMOC**" or the "**Company**") as purchaser pursuant to a binding agreement entered into effective 27 April 2016, for each of the three years ended 31 December 2013, 2014 and 2015 and the six months ended 30 June 2016 (the "**Relevant Period**") for inclusion in the circular of CMOC dated 8 September 2016 (the "**Circular**") in connection with the proposed acquisition of the Niobium Business by the Company, which, together with the proposed acquisition of the Phosphates Business constitutes a major acquisition under the Rules Governing the Listing of Securities on the Main Board of The Stock Exchange of Hong Kong Limited (the "**Stock Exchange**") (the "**Listing Rules**"). The Niobium Business represents (i) through Anglo American Niobio Brasil Limitada ("**AANB**"), all the assets held by and business conducted by that entity and (ii) the activities of the Niobium Marketing Division ("**NMD**").

AANB was incorporated in the Federative Republic of Brazil as a limited liability company on 1 June 2001. The principle business of AANB is the extraction and export of ferroniobium. AANB have adopted December 31 as its financial year end date and its statutory financial statements for the three years ended December 31, 2015 were prepared in accordance with the General Accepted Accounting Principles adopted in Brazil and were audited by Deloitte Touche Tohmatsu Brazil, which is a firm of certified public accountants registered in Brazil.

For the purpose if this report, the management of the Niobium Business has prepared the financial statements of the Niobium Business for the Relevant Period using accounting policies which are in accordance with International Financial Reporting Standards ("**IFRS**") issued by the International Accounting Standards Board ("**IASB**") (the "**Underlying Financial Statements**"). We have undertaken an independent audit of the Financial Information of the Niobium Business for the Relevant Period in accordance with the International Standards on Auditing ("**ISA**") issued by the International Auditing and Assurance Standards Board "**IAASB**").

We have examined the Underlying Financial Statements in accordance with the Auditing Guideline 3.340 "**Prospectuses and the Reporting Accountant**" issued by the Hong Kong Institute of Certified Public Accountants.

The Financial Information set out in this report has been prepared by the directors of the Company based on the aforementioned Underlying Financial Statements and in accordance with the accounting policies set out in Note 1 of Section A to the Financial Information for inclusion in the Circular. No adjustments were considered necessary to the Underlying Financial Statements in the preparation of the Financial Information for inclusion in the Circular.

The Underlying Financial Statements are the responsibility of management of Niobium Business who approved their issue. The directors of the Company are responsible for the Financial Information and the contents of the Circular in which this report is included. It is our responsibility to form an independent opinion on the Financial Information and to report our opinion to you.

In our opinion, the Financial Information, for the purpose of this report and on the bases of presentation set out in note 1 of Section A below, gives a true and fair view of the state of affairs of the Niobium Business as at 31 December 2013, 31 December 2014, 31 December 2015 and 30 June 2016, and of the results and cash flows of the Niobium Business for the Relevant Period.

The comparative income statement, statement of comprehensive income, statement of equity and statement of cash flows of the Niobium Business for the six months ended 30 June 2015, together with the notes thereon (together the "June 2015 Financial Information") have been extracted from the Niobium Businesses' unaudited financial statements for the same period (the "June 2015 Underlying Financial Statements") which were prepared by management of the Niobium Business for the purpose of this report. The June 2015 Financial Information set out in this report has been prepared by the directors of the Company based on the aforementioned June 2015 Underlying Financial Statements.

We conducted our review of the June 2015 Financial Information in accordance with the International Standard on Review Engagements 2410 "**Review of Interim Financial Information Performed by the Independent Auditor of the Entity**" issued by the IAASB. Our review of the June 2015 Financial Information consisted of making enquiries, primarily of the persons responsible for the financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with the International Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the June 2015 Financial Information.

Based on our review, which is not an audit, nothing has come to our attention which causes us to believe that the June 2015 Financial Information does not in all material respects present a true and fair view in accordance with the basis of preparation set out in Note 1 of Section A to the Financial Information.

A. FINANCIAL INFORMATION OF THE NIOBIUM BUSINESS

Income Statement

For the years ended 31 December 2013, 2014 and 2015 and the 6 month period ended 30 June 2016 and 2015

US$ thousands	*Note*	**6 months ended 30 June 2016**	**6 months ended 30 June (unaudited) 2015**	**12 months ended 31 December 2015**	**2014**	**2013**
Revenue	4	85,885	79,353	110,835	179,845	181,635
Operating costs	4	(74,039)	(63,784)	(86,739)	(117,844)	(111,521)
Profit before net finance costs and tax		11,846	15,569	24,096	62,001	70,114
Investment income	5	5,591	2,054	5,118	2,278	4,692
Interest expense	5	(10,242)	(7,234)	(12,264)	(10,581)	(12,795)
Other financing gain/ (losses)	5	16,671	(1,626)	(7,179)	3,536	(9,229)
Net finance costs		12,020	(6,806)	(14,325)	(4,767)	(17,332)
Profit before tax		23,866	8,763	9,771	57,234	52,782
Income tax expense	6	(4,081)	(1,125)	(5,165)	(48,996)	(24,643)
Profit for the period/ years		19,785	7,638	4,606	8,238	28,140

Statement of Comprehensive Income

For the years ended 31 December 2013, 2014 and 2015 and the 6 month period ended 30 June 2016 and 2015

US$ thousands	*Note*	**6 months ended 30 June 2016**	**6 months ended 30 June (unaudited) 2015**	**12 months ended 31 December 2015**	**2014**	**2013**
Profit for the period/ years		19,785	7,638	4,606	8,238	28,140
Items that will not be reclassified to the income statement (net of tax)[1]						
Remeasurement of net retirement benefit obligation	20	74	–	(173)	144	(189)
Items that have been or may subsequently be reclassified to the income statement (net of tax)[1]						
Net revaluation (loss)/ gain on derivative hedge instruments	20	–	(277)	(277)	4,324	(5,948)
Total comprehensive (expense)/income for the period/years attributable to the equity shareholder o f the Company		19,859	7,361	4,156	12,706	22,003

Statements of Finanical Position

As at 31 December 2013, 2014 & 2015 and 30 June 2016

US$ thousands	*Note*	30 June 2016	31 December 2015	31 December 2014	31 December 2013
ASSETS					
Non-current assets					
Intangible assets	7	141,086	133,286	141,596	97,496
Property, plant and equipment	8	543,550	542,722	518,679	325,781
Financial asset investments	9	579	75	3,970	540
Trade and other receivables	11	15,783	12,137	13,850	8,287
Net deferred tax assets	16	8,397	5,263	–	18,360
Total non-current assets		709,395	693,483	678,095	450,464
Current assets					
Inventories	10	59,050	52,274	37,455	30,488
Trade and other receivables	11	20,914	9,273	13,946	24,605
Current tax assets	6	2,140	–	1,508	–
Related party receivables	22	4,020	4,586	3,955	795
Cash and cash equivalents	12	68,870	65,647	35,831	22,306
Other current assets		–	201	277	–
Total current assets		154,994	131,981	92,972	78,194
Total assets		864,389	825,464	771,067	528,658

US$ thousands	*Note*	30 June 2016	31 December 2015	31 December 2014	31 December 2013
LIABILITIES					
Current liabilities					
Trade and other payables	13	27,422	18,893	30,970	27,656
Related party payables	22	4,191	4,939	4,257	1,933
Current tax liabilities	6	–	8,553	–	12,142
Provision for liabilities & charges	15	13,487	12,720	11,531	5,489
Other current financial liabilities		01	15	–	9,190
Total current liabilities		45,101	45,120	46,758	56,410
Non-current liabilities					
Loans from related parties	22	336,000	336,000	336,000	189,994
Retirement benefit obligations	19	45	261	381	636
Net deferred tax liabilities	16	–	–	12,398	–
Provisions for liabilities and charges	15	203,215	183,914	174,947	129,491
Other non-current financial liabilities		–	–	–	2,225
Total non-current liabilities		539,260	520,175	523,726	322,346
Total liabilities		584,361	565,295	570,484	378,756
Net assets		280,028	260,169	200,583	149,902
EQUITY					
Share capital		236,297	204,649	140,649	95,649
Retained earnings		43,720	55,583	59,547	58,334
Other Reserves	20	11	(63)	387	(4,081)
Total equity		280,028	260,169	200,583	149,902

Cash Flow Statement

For the years ended 31 December 2013, 2014 and 2015 and the 6 month period ended 30 June 2016 and 2015

US$ thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
I. Cash flow from operating activities:						
Cash received from sales of goods and provision of services		59,988	95,060	199,785	190,218	171,347
Other cash receipts relating to operating activities		3,354	6,802	3,774	2,830	7,455
Sub-total of cash inflows from operating activities		63,342	101,862	203,559	193,048	178,802
Cash payments for goods purchased and services received		51,898	63,139	115,362	85,845	87,202
Cash payments to and on behalf of employees		11,549	10,642	18,191	30,580	23,960
Payments of various types of taxes		18,823	8,045	14,712	41,463	31,433
Other cash payments relating to operating activities		(173)	100	280	239	13
Sub-total of cash outflows from operating activities		82,097	81,926	148,545	158,127	142,608
Net cash flow from operating activities		(18,755)	19,936	55,014	34,921	36,194

US$ thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
II. Cash flows from investing activities:						
Other cash receipts relating to investing activities		22,761	–	–	–	–
Sub-total of cash inflows from investing activities		22,761	–	–	–	–
Intangible assets and other long-term assets		19,641	11,397	40,662	176,891	199,820
Sub-total of cash outflows from investing activities		19,641	11,397	40,662	176,891	199,820
Net cash flow from investing activities		3,120	(11,397)	(40,662)	(176,891)	(199,820)
III. Cash flows from financing activities:						
Cash receipts from borrowings		–	–	–	146,000	180,000
Other Cash receipts relating to financing activities		5,341	1,450	3,916	2,035	1,899
Share capital increase		–	–	64,000	45,000	–
Sub-total of cash inflows from financing activities		5,341	1,450	67,916	193,035	181,899

US$ thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Profits and settlement of interests		–	–	8,564	6,876	7,235
Other cash payments relating to financing activities		5,466	4,925	10,044	8,717	3,225
Sub-total of cash outflows from financing activities		5,466	4,925	18,608	15,593	10,460
Net cash flow from financing activities		(125)	(3,475)	49,308	177,442	171,439
IV. Effect of foreign exchange rate changes on Cash and cash equivalents		18,983	(8,488)	(33,844)	(21,948)	(5,359)
V. Net increase in cash and cash equivalents		3,223	(3,424)	29,816	13,524	2,454
Add: Opening balance of cash and cash equivalents	12	65,647	35,831	35,831	22,306	19,852
VI. Closing balance of cash and cash equivalents	12	68,870	32,407	65,647	35,831	22,306

Statement of Changes in Equity

For the years ended 31 December 2013, 2014 and 2015 and the 6 month period ended 30 June 2016

US$ thousands	*Note*	**Share capital[(1)]**	**Retained earnings**	**Fair value and other reserves**	**Total Equity**
At 1 January 2013		95,649	36,614	2,056	134,319
Total comprehensive income	20	–	28,140	(6,137)	22,003
Interest on onwn capital distribution		–	(6,420)	–	(6,420)
At 1 January 2014		95,649	58,334	(4,081)	149,902
Share Capital increase		45,000	–	–	45,000
Total comprehensive income	20	–	8,238	4,468	12,706
Interest on onwn capital distribution		–	(7,025)	–	(7,025)
At 1 January 2015		140,649	59,547	387	200,583
Share Capital increase		64,000	–	–	64,000
Total comprehensive income	20	–	4,606	(450)	4,156
Interest on onwn capital distribution		–	(8,570)	–	(8,570)
At 1 January 2016		204,649	55,583	(63)	260,169
Share Capital increase		31,648	(31,648)	–	–
Total comprehensive income	20	–	19,785	74	19,859
At 30 June 2016		236,297	43,720	11	280,028

(1) Refer to Note 21

US$ thousands	*Note*	**Share capital[(1)]**	**Retained earnings**	**Fair value and other reserves**	**Total Equity**
At 1 January 2015		140,649	59,547	387	200,583
Share Capital increase		–	–	–	–
Total comprehensive income	20	–	7,638	(277)	7,361
At 30 June 2015 (unaudited)		140,649	67,185	110	207,944

1. GENERAL INFORMATION

Throughout the Relevant Period, Anglo American's interest in AANB was held by Ambras. Anglo American is comprised on Anglo American plc and their respective subsidiaries, joint arrangements and associates. Collectively AANB's operations being, as well as the activities of the Niobium Marketing Division ("**NMD**") are referred to as the Niobium Business throughout this document. When used in this document, Anglo, Anglo American or Owner refers to Anglo American and, where applicable, one or more of its subsidiaries, joint arrangements and associates.

Throughout the Relevant Period, the Niobium Business was headquartered in Brazil. It is currently headquartered in the city of Belo Horizonte in the state of Minas Gerais, since 8th April 2014, but prior to this time was based in the city of São Paulo in the state of the same name.

On 27 April 2016, Anglo American announced it has reached a binding agreement for the sale of the Niobium Business and the Phosphates Business to China Molybdenum Co., Ltd. ("**CMOC**") for an aggregate consideration of $1.5 billion U.S. dollars ("**USD**") (equivalent to approximately $11.6 billion Hong Kong dollars ("**HKD**") at the announcement date), subject to certain conditions.

Description of the business

The principle business of the Niobium Business is the extraction and export of ferroniobium.

Basis of preparation

The basis of preparation describes how the combined financial statements have been prepared in accordance with IFRS, except for the departures from IFRS noted below.

IFRS does not provide for the preparation of combined financial statements, and accordingly in preparing the combined financial statements certain accounting conventions commonly used in the preparation such information for inclusion in circulars have been applied and accordingly there have been departures from IFRS, which are discussed in more detail below. In all other respects, IFRS has been applied.

Combined financial statements

The combined financial statements for the three years ending 31 December 2015 and the six months ending 30 June 2016 (the "**Relevant Period**") have been properly prepared in accordance with the accounting policies stated in Note 25.

The operations of Anglo American Niobio Brasil Limitada ("**AANB**") and the activities of the Niobium Marketing Division ("**NMD**") (together the "**Niobium Business**"), when combined, do not constitute a separate legal entity. The combined financial statements have therefore been prepared with the objective of presenting the results and net assets of the Niobium Business for the Relevant Period. The businesses have, for the period and years presented, been under the control of different legal entities within the Anglo American plc Group. The immediate parent and ultimate holding company of the Niobium Business are Ambras Holdings SARL and Anglo American plc respectively. Consequently, the combined financial statements may not necessarily be indicative of the financial performance that would have been achieved, had the Niobium Business operated independently as a combined legal entity for the Relevant Period. Furthermore, they may not be indicative of the financial results in future periods.

Statement of changes in equity

The combined financial statements include a statement of changes in equity which principally relates to AANB. As the NMD is not a separate legal entity movements in "**equity**" have been recorded as retained income.

Related Party Disclosures

The NMD does not constitute a separate legal entity and there are therefore numerous transactions occurring between it and other areas of its legal entity, Anglo American Marketing Limited ("**AAML**"). The related party disclosures include transactions between AANB and other entities in the Anglo American plc Group but also transactions between the NMD and other divisions of AAML (e.g. Nickel Marketing London) and the broader Anglo American plc Group (e.g. Copper Marketing Singapore). The related party transaction note (Note 22) also includes intercompany funding transactions between the Relevant Business and Anglo American Capital plc.

Intercompany transactions and funding

Except for the receivables by AANB from the NMD (i.e. the AAML legal entity) remaining from the carve-out, all transactions between AANB and the NMD have been eliminated as a part of the presentation of the combined financial statements of the Niobium Business. Such transactions and balances are considered to have occurred between AANB and the NMD as if they were both separate and individual legal entities.

Income tax expense

Income tax is calculated for the specific NMD within AAML, rather than using a tax allocation. This is added to the income tax generated in Brazil by AANB, to form the combined income tax of the Niobium Business.

As NMD is not a statutory entity, it does not have an individual tax obligation per se (as taxes are levied at the entity level – AAML). For the purposes of these financial statements income tax has been calculated on NMD's allocation of profit as if it were a standalone entity. The rates of tax applied are dependent on where the relevant sales transactions were generated and are, therefore, a blend of the UK and Singaporean rates of tax.

Deferred tax

Deferred tax for the NMD is calculated at the AAML statutory level, applying tax rules and accounting principles that apply at that level which will not result in the same balances had the NMD activities been a standalone entity. The total deferred tax balance at the statutory level was allocated to the NMD activities using the significant carrying values on the statement of financial position that attract deferred tax.

These deferred tax liabilities may not be fully representative of the balances that would have been recognised had the NMD activities been operating as a separate entity in the Relevant Period

2. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the course of preparing financial statements, management necessarily makes judgements and estimates that can have a significant impact on the financial statements. The most critical of these relate to impairment of assets, taxation, retirement benefits, contingent liabilities, estimation of ore reserves, assessment of fair value, restoration, rehabilitation and environmental costs and deferred stripping. The use of inaccurate assumptions in assessments made for any of these judgements and estimates could result in a significant impact on financial results.

Critical accounting judgements

Impairment of assets

Mining operations are large, scarce assets requiring significant technical and financial resources to operate. Their value may be sensitive to a range of characteristics unique to each asset and key sources of estimation uncertainty include ore reserve estimates and cash flow projections.

In performing impairment reviews, the management of Niobium Business assesses the recoverable amount of its operating assets principally with reference to fair value less costs of disposal, assessed using discounted cash flow models. There is judgement in determining the assumptions that are considered to be reasonable and consistent with those that would be applied by market participants. In addition, in making assessments for impairment, management necessarily applies its judgement in allocating assets, including goodwill, that do not generate independent cash flows to appropriate cash generating units (CGUs). Subsequent changes to the CGU allocation, to the timing of cash flows or to the assumptions used to determine the cash flows could impact the carrying value of the respective assets.

Taxation

The Niobium Business' tax affairs are governed by complex domestic tax legislations and the interpretation of such by tax authorities and courts. Given the many uncertainties that could arise from these factors, judgement is often required in determining the tax that is due. Where management is aware of potential uncertainties that are more likely than not to result in a liability for additional tax, a provision is made for management's best estimate of the liability, determined with reference to similar transactions and, in some cases, reports from independent experts.

In addition, the recognition and measurement of deferred tax requires the application of judgement in assessing the amount, timing and probability of future taxable profits and repatriation of retained earnings. These factors affect the determination of the appropriate rates of tax to apply and the recoverability of deferred tax assets. These judgements are influenced, inter alia, by factors such as estimates of future production, commodity lines, operating costs, future capital expenditure, and dividend policies.

Contingent liabilities

On an ongoing basis the Niobium Business is a party to various legal disputes, the outcomes of which cannot be assessed with a high degree of certainty.

A provision is recognised where, based on the Niobium Business' legal views and advice, it is considered probable that an outflow of resources will be required to settle a present obligation that can be measured reliably. Disclosure of contingent liabilities is made in note 15 unless the possibility of a loss arising is considered remote. Management applies its judgement in determining whether or not a provision or contingent liability should be recorded.

Key sources of estimation uncertainty

Ore Reserves

When determining Ore Reserves, which may be used to calculate useful economic lives of assets and depreciation on the Niobium Business' mining properties, assumptions that were valid at the time of estimation may change when new information becomes available. In addition, the calculation of the unit of production rate of amortisation could be impacted to the extent that actual production in the future is different from current forecast production.

Any changes in estimate could affect prospective depreciation rates and asset carrying values and, as a result, the determination of Ore Reserves is considered a key source of estimation uncertainty.

Factors which could impact useful economic lives of assets and Ore Reserve estimates include:

- the grade of ore reserves varying significantly from time to time
- differences between actual commodity prices and commodity price assumptions used in Ore Reserve estimation

- renewal of mining licenses
- operational issues at mine sites; and
- adverse changes in capital, operating, mining, processing and reclamation costs, discount rates and foreign exchange rates used to determine ore reserves.

Assessment of fair value

The assessment of fair value is principally used in accounting for impairment testing and certain financial assets and liabilities.

The fair value of an asset or liability is the price that would be received to sell the asset, or paid to transfer a liability in an orderly transaction between market participants. Fair value is determined based on observable market data as at the relevant period end, discounted cash flow models (and other valuation techniques) or where relevant signed sales agreements and assumptions considered to be reasonable and consistent with those that would be applied by a market participant. Where discounted cash flow models based on management's assumptions are used, the resulting fair value measurements are considered to be at level 3 in the fair value hierarchy, as defined in IFRS 13 Fair Value Measurement, as they depend to a significant extent on unobservable valuation inputs.

The determination of assumptions used in assessing the fair value of identifiable assets and liabilities is subjective and the use of different valuation assumptions could have a significant impact on financial results.

Fair value of financial instruments

Certain of the Niobium Business' financial instruments, principally derivatives, are required to be measured on the statements of financial position at fair value. Where a quoted market price for an identical instrument is not available, a valuation model is used to calculate the fair value based on the net present value of the expected cash flows under the contract. Valuation assumptions are usually based on observable market data (for example forward foreign exchange rate, interest rate or commodity price curves) where available.

Cash flow projections

Expected future cash flows used in discounted cash flow models are inherently uncertain and could materially change over time. They are significantly affected by a number of factors including ore reserves and mineral resources, together with economic factors such as commodity prices, exchange rates, discount rates and estimates of production costs and future capital expenditure.

Cash flow projections are based on financial budgets and life of mine plans or, for non-mine assets, an equivalent appropriate long term forecast, and incorporating key assumptions as detailed below:

- **Ore reserves and mineral resources**

  Ore reserves and, where considered appropriate, mineral resources are incorporated in projected cash flows, based on ore reserves and mineral resource statements and exploration and evaluation work undertaken by appropriately qualified persons. Mineral resources are included where management has a high degree of confidence in their economic extraction, despite additional evaluation still being required prior to meeting the required confidence to convert to ore reserves.

- **Commodity and product prices**

  Commodity and product prices are based on latest internal forecasts, benchmarked with external sources of information, to ensure they are of appropriate reflection of market conditions. Where existing sales contracts are in place, the effects of such contracts are taken into account in determining future cash flows.

- **Foreign exchange rates**

  Foreign exchange rates are based on latest internal forecasts, benchmarked with external sources of information for relevant countries of operation. Foreign exchange rates are kept constant (on a real basis) from 2020 onwards

- **Discount rates**

  Cash flow projections used in fair value less costs of disposal impairment models are discounted based on a real post-tax discount rate, assessed annually, of 6.5% (2013, 2014 and 2015: 6.5%). Adjustments to the rate are made for any risks that are not reflected in the underlying cash flows.

- **Operating costs, capital expenditure and other operating factors**

  Operating costs and capital expenditure are based on financial budgets covering a five year period. Cash flow projections beyond five years are based on the life of mine plan and internal management forecasts. Cost assumptions incorporate management experience and expectations, as well as the nature and location of the operation and the risks associated therewith. Underlying input cost assumptions are consistent with related output price assumptions. Other operating factors, such as the timelines of granting licences and permits are based on management's best estimate of the outcome of uncertain future events at the date of reporting period.

  Where an asset has potential for future development through capital investment, to which a market participant would attribute value, and the costs and economic benefits can be estimated reliably, this development is included in the cash flows (with appropriate risk adjustments).

Restoration, rehabilitation and environmental costs

Costs for restoration of site damage, rehabilitation and environmental costs are estimated using either the work of external consultants or internal experts. The amount recognised as a provision represents management's best estimate of the consideration required to complete the restoration and rehabilitation activity, the application of the relevant regulatory framework and timing of expenditure. These estimates are inherently uncertain and could materially change over time. To the extent that the actual future costs differ from these estimates, adjustments will be recorded and the amount provided could be impacted.

Retirement benefits

The expected costs of providing pensions and post-employment benefits under defined benefit arrangements relating to employee service during the period are determined based on financial and actuarial assumptions.

Assumptions in respect of the expected costs are set after consultation with qualified actuaries. While management believes the assumptions used are appropriate, a change in the assumptions used would affect the amounts recognised in the financial statements.

3. CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The accounting policies applied are consistent with those adopted and disclosed in the Niobium Business financial statements for the period ended 30 June 2016, except for changes arising from the adoption of the following new accounting pronouncements which became effective in the current reporting period:

- *Amendments to IAS 19 Employee Benefits: Defined Benefit Plans – Employee Contributions.*
- *Annual Improvements to IFRSs 2010–2012 cycle.*
- *Annual Improvements to IFRSs 2011–2013 cycle.*

The adoption of these new accounting pronouncements has not had a significant impact on the accounting policies, methods of computation or presentation applied by the Niobium Business. The Niobium Business has not early adopted any other amendment, standard or interpretation that has been issued but is not yet effective. It is expected that where applicable, these standards and amendments will be adopted on each respective effective date.

New IFRS accounting standards, amendments and interpretations not yet adopted

The following new accounting standards in issue but not yet effective could have an impact on the Niobium Business:

IFRS 15 Revenue from Contracts with Customers

IFRS 15 will replace IAS 18 Revenue and IAS 11 Construction Contracts and establishes a unified framework for determining the timing, measurement and recognition of revenue. The principle of the new standard is to recognise revenue as performance obligations are met rather than based on the transfer of risks and rewards.

The effective date of the standard has been deferred to 1 January 2018 to allow companies more time to deal with transitional issues of application.

The management of Niobium Business is currently reviewing the potential impact of adopting IFRS 15 however as its revenue is predominantly derived from arrangements in which the transfer of risks and rewards coincides with the fulfilment of performance obligations, the timing and amount of revenue recognised is unlikely to be materially affected for the majority of sales.

IFRS 15 also includes disclosure requirements including qualitative and quantitative information about contracts with customers to help users of the financial statements understand the nature, amount, timing and uncertainty of revenue.

IFRS 9 Financial Instruments

IFRS 9 will replace IAS 39 *Financial Instruments*: *Recognition and Measurement addressing* the following key areas:

- *Classification and measurement* establishes a single, principles-based approach for classification of financial assets, which is driven by cash flow characteristics and the business model in which an asset is held. This is not expected to have a significant presentational impact on the Niobium Business financial statements.

- *Impairment* introduces a new 'expected credit loss' impairment model, requiring expected credit losses to be recognised from when financial instruments are first recognised. The transition to this model is expected to result in changes in the systems and computational methods used by the management of Niobium Business to assess receivables and similar assets for impairment. However, given the profile of the Niobium Business' counterparty exposures, this is not expected to have a material impact on the amounts recorded in the financial statements.

- *Hedge Accounting* aligns the accounting treatment with risk management practices of an entity, including making a broader range of exposures eligible for hedge accounting and introducing a more principles-based approach to assessing hedge effectiveness.

IFRS 9 is effective for annual reporting periods beginning on or after 1 January 2018.

The Niobium Business' implementation activities to date have principally focused on gaining a high level understanding of the likely effects of IFRS 9 given the nature of financial instruments held by the Niobium Business since is not practicable to provide a reasonable estimate of the effect of IFRS 9 until the Niobium Business performs a detailed review.

IFRS 16 *Leases*

IFRS 16 replaces IAS 17 *Leases* and IFRIC 4 *Determining whether an Arrangement contains a Lease*. The new standard provides a single lessee accounting model for the recognition, measurement, presentation and disclosure of leases. IFRS 16 applies to all leases including subleases and requires lessees to recognise assets and liabilities for all leases, unless the lease term is 12 months or less, or the underlying asset has a low value. Lessors continue to classify leases as operating or finance.

IFRS 16 was issued in January 2016 and applies to annual reporting periods beginning on or after 1 January 2019. The management of Niobium Business will evaluate the potential impact of IFRS 16 on the financial statements and performance measures since is not practicable to provide a reasonable estimate of the effects of IFRS 16 until the Niobium Business performs a detailed review.

Other new amendments and interpretations

The following new amendments and interpretations in issue but not yet effective are not expected to have a significant impact on the Niobium Business:

- Amendments to IAS 1 *Presentation of Financial Statements: Disclosure Initiative* provides guidance on the use of judgement in presenting financial statement information, including: the application of materiality; order of notes; use of subtotals; accounting policy referencing and disaggregation of financial and non-financial information.

- Amendments to IAS 27 *Equity Method in Separate Financial Statements* will allow entities to use the equity method in their separate financial statements to measure investments in subsidiaries, joint ventures and associates.

- Amendments to IAS 16 *Property, Plant and Equipment* and IAS 38 Clarification of Acceptable Methods of Depreciation clarify that a revenue based method of depreciation or amortisation is generally not appropriate.

- Amendments to IFRS 10 *Consolidated Financial Statements* and IAS 28 *Investments in Associates and Joint Ventures: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture* remove an inconsistency between the two standards on the accounting for gains and losses arising on sale or contribution of assets by an investor to its associate or joint venture. Following the amendment, such gains and losses may only be recognised to the extent of the unrelated investor's interest, except where the transaction involves assets that constitute a business.

- Amendments to IFRS 11 *Accounting for Acquisitions of Interests in Joint Operations* and IAS 28 *Investments in Associates and Joint Ventures* clarify the accounting for the acquisition of an interest in a joint operation where the activities of the operation constitute a business.

Other issued standards and amendments that are not yet effective are not expected to have an impact on the financial statements.

4. OPERATING PROFIT/(LOSS)

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Revenue	85,885	79,353	110,835	179,845	181,635
Cost of sales	(56,034)	(29,394)	(43,278)	(88,263)	(85,525)
Gross profit	29,851	49,959	67,557	91,582	96,110
Administrative expenses	(5,484)	(12,888)	(13,901)	(18,018)	(8,007)
Other expenses	(13,495)	(25,421)	(35,056)	(8,370)	(18,008)
Other gains	1,050	3,115	4,444	150	6,336
Operating Financial Remeasurements	(76)	804	1,052	(3,343)	(6,317)
Operating Profit	11,846	15,569	24,096	62,001	70,114

US$ thousands

Operating profit is stated after (charging)/credit ing:					
Depreciation of property, plant and equipment assets *(see note 8)*	(13,113)	(2,326)	(6,122)	(5,413)	(4,662)
Amortisation of intangible assets *(see note 7)*	(5,214)	(3,513)	(8,049)	(2,595)	(6,770)
Evaluation expenditure[(1)]	(200)	(246)	(1,387)	(959)	(6,704)
Research and development expenditure	–	–	(1,378)	(1,073)	(6,837)
Employee costs *(see note 18)*	(20,550)	(18,319)	(33,608)	(40,082)	(26,051)
Royalties received	645	637	1,018	1,222	1,107
Other gains and lo sses comprises:					
Foreign exchange gains/(losses) on other monetary items	140	2,554	1,810	(5,770)	4,658

(1) Evaluation of Niobium mineral resources relating to projects in the conceptual or pre-feasibility stage or further evaluation of mineral resources at existing operations

5. NET FINANCE COST

See note 26b for the Niobium Business' accounting policy on borrowing costs.

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Investment income					
Interest income from cash and cash equivalents	5,433	1,480	4,304	1,994	4,546
Exchange variation	123	598	11	252	131
Other interest income	35	(24)	803	32	15
Total investment income	5,591	2,054	5,118	2,278	4,692
Interest expense					
Interest and other finance expense	(365)	(1,728)	(3,932)	(1,805)	(3,304)
Unwinding of discount relating to provisions	(9,877)	(5,506)	(8,332)	(8,776)	(9,491)
Total interest expense	(10,242)	(7,234)	(12,264)	(10,581)	(12,795)
Other net financing losses					
Net foreign exchange losses	16,671	(1,626)	(7,179)	3,536	(9,229)
Total other net financing losses	16,671	(1,626)	(7,179)	3,536	(9,229)
Net finance cost	12,020	(6,806)	(14,325)	(4,767)	(17,332)

6. INCOME TAX EXPENSE

See note 25c for the Niobium Business' accounting policy on tax.

a) Analysis of charge for the year

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Payable in respect of the current year	(7,253)	(13,067)	(22,594)	(20,540)	(20,747)
Current tax	(7,253)	(13,067)	(22,594)	(20,540)	(20,747)
Deferred tax	3,172	11,942	17,429	(28,456)	(3,896)
Income tax expense	(4,081)	(1,125)	(5,165)	(48,996)	(24,643)

b) Factors affecting tax charge for the year

The effective tax rate for the six month period ended on the 30th June 2016 of 17% (2015: 53%; 2014: 86%; 2013:47%) is lower than the applicable statutory rate of corporation as described below. The reconciling items are:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Profit/(loss) before tax	23,866	8,763	9,771	57,234	52,782
Tax on prof it/(loss) calculated at corporation tax rate of 34% (2013 & 2014: 34%) in Brazil.UK corporation tax rate of 20.0% and Singapore tax rate of 5% (2015: UK - 20.25%, SG - 5%, 2014: UK - 21.5%, SG - 5%)	(7,669)	(2,500)	(2,827)	(18,767)	(17,946)
Tax effects of:					
Interest on ow n capital	–	–	2,914	2,389	2,183
Non-monetary items	3,949	1,021	(4,476)	(32,808)	(5,680)
Other permanent differences	(361)	354	(776)	190	(3,200)
Income tax expense/(income)	(4,081)	(1,125)	(5,165)	(48,996)	(24,643)

c) Tax amounts included in other comprehensive income

An analysis of tax by individual item presented in the Statement of comprehensive income is presented below:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Tax (charge)/credit on items recognised directly in equity that will not be reclassified to the income statement					
Remeasurement of net retirement benefit obligation	(38)	–	89	(74)	97
Tax credit on items recognised directly in equity that may subsequently be reclassified to the income statement					
Net gain/ (loss) on revaluation of derivative hedge instruments	–	(143)	143	(2,228)	3,064

d) Income tax paid

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Balance at start of period	8,553	(1,508)	(1,508)	12,142	4,191
Income tax – current tax charge	7,253	13,067	22,594	20,540	20,747
Income tax paid	(17,946)	(5,954)	(12,533)	(34,190)	(12,796)
Balance at end of year	(2,140)	5,605	8,553	(1,508)	12,142

7. INTANGIBLE ASSETS

See note 25d for the Niobium Business' accounting policy on intangible assets.

	30 June 2016			
US$ thousand	**Mining rights**	**Software licences**	**Other**	**Total**
Cost				
Opening balance	205,130	1,957	–	207,087
Additions	12,779	–	–	12,779
Reclassifications	–	234	–	234
At 30 June 2016	217 ,909	2 ,191	–	220,100
Amortisation				
Opening balance	(72,837)	(963)	–	(73,800)
CY charges	(5,006)	(208)	–	(5,214)
Reclassifications	–	–	–	–
At 30 June 2016	(77 ,843)	(1,171)	–	(79 ,014)
Net book value ending at 30 June 2016	140,066	1,020	–	141,086

	31 December 2015			
US$ thousand	**Mining rights**	**Software licences**	**Other**	**Total**
Cost				
Opening balance	206,070	1,277	–	207,347
Additions	–	29	–	29
Resource reduction	(940)	–	–	(940)
Reclassifications	–	650	–	650
At 31 December 2015	205,130	1,956	–	207,086
Amortisation				
Opening balance	(65,056)	(695)	–	(65,751)
CY charges	(7,781)	(268)	–	(8,049)
At 31 December 2015	(72,837)	(963)	–	(73,800)
Net book value ending at 31 December 2015	132,293	993	–	133,286

	31 December 2014			
US$ thousand	**Mining rights**	**Software licences**	**Other**	**Total**
Cost				
Opening balance	159,613	1,039	–	160,652
Additions	46,457	32	–	46,489
Reclassifications	–	206	–	206
At 31 December 2014	206,070	1,277	–	207,347
Amortisation				
Opening balance	(62,583)	(573)	–	(63,156)
CY charges	(2,473)	(122)	–	(2,595)
At 31 December 2014	(65,056)	(695)	–	(65,751)
Net book value ending at 31 December 2014	141,014	582	–	141,596

	31 December 2013			
US$ thousand	**Mining rights**	**Software licences**	**Other**	**Total**
Cost				
Opening balance	177,679	420	–	178,099
Additions	–	223	–	223
Resource reduction	(18,066)	–	–	(18,066)
Reclassifications	–	396	–	396
At 31 December 2013	159 ,613	1,039	–	160 ,652
Amortisation				
Opening balance	(56,087)	(299)	–	(56,386)
CY charges	(6,496)	(274)	–	(6,770)
At 31 December 2013	(62 ,583)	(573)	–	(63 ,156)
Net book value ending At 31 December 2013	97,030	466	–	97,496

	At 30 June	**12 months ended 31 December**		
US$ thousand	**2016**	**2015**	**2014**	**2013**
Cost	219,866	207,086	207,347	160,652
Accumulated amortisation	(78,780)	(73,800)	(65,751)	(63,156)
	141,086	133,286	141,596	97,496

Software and licenses useful life estimated between 3 and 5 years (associated maintenance costs are expensed as incurred). Mining rights are capitalised and amortised throughout their useful life at a rate of 5% p.a. using a linear method.

In October 2000 Anglo American purchased from a third party (together with other purchase consideration) a minority stake in the company that owned the niobium operations for a nominal fee plus a 4.5% revenue-linked royalty. As a result of accounting under IFRS6 applicable at the time the fair value of the future royalty stream was determined to be a form of contingent consideration and a provision was included in the statements of financial position. At the time of the transaction the future royalty stream was considered to reflect the value of the mining rights acquired and such asset was recognised. The provision is re-assessed at the end of each reporting period, with any change in the provision being reflected as a value change to the mining right asset.

8. PROPERTY, PLANT AND EQUIPMENT

See note 25e for the Niobium Business' accounting policies on property, plant and equipment.

A new plant construction was finalised at the end of 2014 (Boa Vista Fresh Rock plant – BVFR) at a total investment of $380 million. The plant is currently in ramp-up with commercial production considered to have been achieved in March 2016 and full capacity expected to be achieved later in 2016. Therefore, additions on the table below include the capitalisation of net interest expense incurred on intercompany borrowings (6 months ended 30th June 2016: $1.7 million; 12 months ended 2015: $10 million; 2014: $8.7 million) as well as operating results up until March 2016 (6 months ended 30th June 2016: $8.1 million; 12 months ended 2015: $16.6 million profit; 2014: $1.1 million loss).

	At 30 June 2016				
US$ thousand	**Stripping cost**	**Land & buildings**	**Plant & equipment**	**Capital work in progress**	**Total**
Cost					
Opening balance	4,451	209,500	368,500	3,149	585,600
Additions	819	–	138	13,218	14,175
Reclassifications	–	252	(29,303)	28,817	(234)
At 30 June 2016	5,270	209,752	339,335	45,184	599,541
Depreciation					
Opening balance	–	(7,505)	(35,373)	–	(42,878)
CY charges	(70)	(3,433)	(9,610)	–	(13,113)
At 30 June 2016	(70)	(10,938)	(44,983)	–	(55,991)
Net book value ending at 30 June 2016	5,200	198,814	294,352	45,184	543,550

US$ thousand	**At 30 June 2016**				
Cost	5,270	209,752	339,335	45,184	599,541
Accumulated depreciation	(70)	(10,938)	(44,983)	–	(55,991)
At 30 June 2016	5,200	198,814	294,352	45,184	543,550

	31 December 2015				
US$ thousand	**Stripping cost**	**Land & buildings**	**Plant & equipment**	**Capital work in progress**	**Total**
Cost					
Opening balance	3,734	175,586	270,435	106,074	555,829
Additions	717	3,068	3,167	23,863	30,815
Disposal of assets	–	–	(394)	–	(394)
Reclassifications	–	30,846	95,292	(126,788)	(650)
At 31 December 2015	4,451	209,500	368,500	3,149	585,600
Depreciation					
Opening balance	–	(3,373)	(33,777)	–	(37,150)
CY charges	–	(4,132)	(1,990)	–	(6,122)
Disposal of assets	–	–	394	–	394
At 31 December 2015	–	(7,505)	(35,373)	–	(42,878)
Net book value ending at 31 December 2015	4,451	201,995	333,127	3,149	542,722

US$ thousand	31 December 2015				
Cost	4,451	209,500	368,500	3,149	585,600
Accumulated depreciation	–	(7,505)	(35,373)	–	(42,878)
At 31 December 2015	4,451	201,995	333,127	3,149	542,722

	31 December 2014				
US$ thousand	**Stripping cost**	**Land & buildings**	**Plant & equipment**	**Capital work in progress**	**Total**
Cost					
Opening balance	–	17,548	81,822	258,007	**357,377**
Additions	3,734	6,547	5,576	182,961	**198,818**
Disposal of assets	–	–	(160)	–	**(160)**
Reclassifications	–	151,491	183,196	(334,893)	**(206)**
At 31 December 2014	3,734	175,586	270,434	106,075	**555,829**
Depreciation					
Opening balance	–	(2,027)	(29,569)	–	**(31,596)**
CY charges	–	(1,347)	(4,066)	–	**(5,413)**
Disposal of assets	–	–	(141)	–	**(141)**
At 31 December 2014	–	(3,374)	(33,776)	–	**(37,150)**
Net book value ending at 31 December 2014	3,734	172,212	236,658	106,075	**518,679**

US$ thousand			31 December 2014		
Cost	3,734	175,586	270,434	106,075	555,829
Accumulated depreciation	–	(3,374)	(33,776)	–	(37,150)
At 31 December 2014	3,734	172,212	236,658	106,075	518,679

			31 December 2013		
US$ thousand	**Stripping cost**	**Land & buildings**	**Plant & equipment**	**Capital work in progress**	**Total**
Cost					
Opening balance	–	16,221	73,431	61,611	151,263
Additions	–	(129)	4,326	202,316	206,513
Disposal of assets	–	–	(03)	–	(03)
Reclassifications	–	1,456	4,068	(5,920)	(396)
At 31 December 2013	–	17,548	81,822	258,007	357,377
Depreciation					
Opening balance	–	(1,735)	(25,201)	–	(26,936)
CY charges	–	(292)	(4,371)	–	(4,662)
Disposal of assets	–	–	03	–	03
At 31 December 2013	–	(2,027)	(29,569)	–	(31,596)
Net book value ending at 31 December 2013	–	15,521	52,253	258,007	325,781

US$ thousand			31 December 2013		
Cost	–	17,548	81,822	258,007	357,377
Accumulated depreciation	–	(2,027)	(29,569)	–	(31,596)
At 31 December 2013	–	15,521	52,253	258,007	325,781

There were no assets held under finance leases.

Land and buildings are freehold properties

Land is not depreciated. Other assets are depreciated using the straight line method throughout their useful lives, as follows:

Buildings:	25 years
Plant & Equipment:	13 years
Others:	10 years

9. FINANCIAL ASSET INVESTMENTS

See note 25i for the Niobium Business' accounting policy on financial asset investments. All of the Niobium Business' financial asset investments are classified as Loans & Receivables and are Non-Current.

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Opening balance	75	3,970	540	6
Additions	285	322	4,124	543
Foreign exchange	1,549	(1,531)	–	–
Settlements	(1,329)	(2,687)	(693)	(9)
Other	(1)	1	(1)	–
Closing balance	579	75	3,970	540

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Judicial deposits	579	75	3,970	540

Judicial deposits

The Niobium Business is subject to certain legal claims in relation to fiscal, labour and other civil matters. In certain instances, in the normal course of the claim, the Niobium Business is required to put funds on deposit, known as a "judicial deposit" (to demonstrate the Niobium Business' ability to meet the claim, should it be required to make payment). These deposits are a form of restricted cash earning interest based on the Brazilian benchmark interest at Selic Rate which will be either (a) returned to the Niobium Business if it is successful in its defence of the claim or (b) used to compensate the claimant.

10. INVENTORIES

See note 25m for the Niobium Business' accounting policy on inventories.

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Raw materials and consumables	34,042	20,124	25,863	22,527
Finished pro ducts	25,008	32,150	11,592	7,961
	59,050	52,274	37,455	30,488

The cost of inventories recognised as an expense and included in cost of sales in the 6 month period ended 30 June 2016 amounted to $56 million (6 months ended 30 June 2015: $29.4m; $12 months ended 2015: $43.3 million; 2014: $88.3 million; 2013: $85.5 million).

Inventories held at net realisable value at 30 June 2016 amounted to $59 million (31 December 2015: $52.3 million; 2014: $37.5 million; 2013: $30.5 million).

Inventories obsolescence provisioning at realisable value at 30 June 2016 amounted to $330 thousands (31 December 2015: $1.1 million; 2014: $1.2 million; 2013: $689 thousands). Movements in the provision for obsolete inventory have been reflected in the income statement in the relevant period and years (six months ended 30th June 2016: $126 thousand, 2015: $99 thousand, 2014: $1.2 million, 2013: $38 thousand).

11. TRADE AND OTHER RECEIVABLES

Trade receivables are principally short term in nature and are measured at their nominal value, net of appropriate provision for estimated irrecoverable amounts. Such provisions are raised based on an assessment of debtor ageing, past experience or known customer circumstances.

US$ thousands	Due within 1 year	1–2 Years	2–3 years	More than 3 years	Total
30 June 2016					
Trade receivables	20,991	–	96	–	21,087
Other receivables	–	–	49	–	49
Recoverable taxes	(77)	–	15,024	–	14,947
Prepayments and accrued income	–	–	614	–	614
Non-current:					15,783
Current:					20,914
31 December 2015					
Trade receivables	9,269	–	41	–	9,310
Other receivables	–	–	48	–	48
Recoverable taxes	4	–	11,548	–	11,552
Prepayments and accrued income	–	–	500	–	500
Non-current:					12,137
Current					9,273
31 December 2014					
Trade receivables	13,946	–	553	–	14,499
Other receivables	–	–	3	–	3
Recoverable taxes	1	–	13,188	–	13,189
Prepayments and accrued income	–	–	105	–	105
No n-current:					13,850
Current:					13,946
31 December 2013					
Trade receivables	24,605	–	–	–	24,605
Other receivables	–	–	6	–	6
Recoverable taxes	–	–	7,592	–	7,592
Prepayments and accrued income	–	–	689	–	689
Non-current:					8,287
Current:					24,605

The historical level of customer default is minimal and as a result the credit quality of year end trade receivables is considered to be high and no impairment provision has been booked for the periods above.

12. CASH & CASH EQUIVALENTS

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Cash at bank	6,072	5,005	12,665	130
Deposits	62,798	60,642	23,166	22,176
	68,870	65,647	35,831	22,306

Cash deposits are represented by investments with redemption less than 90 days and are recorded at cost plus income earned to the date of the financial statements. Such deposits have an insignificant risk of change in their value.

13. TRADE AND OTHER PAYABLES

Trade payables are not interest bearing and are measured at their nominal value. All amounts shown below are payable within one year

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Trade payables	13,124	4,059	8,935	16,218
Employee related payables	12,483	14,004	19,406	12,940
Other payables	1,336	609	2,460	(1,502)
Accruals and deferred income	479	221	169	–
	27,422	18,893	30,970	27,656

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Due within 1year	27,422	18,893	30,970	27,656

14. FINANCIAL INSTRUMENTS

See note 25k for the Niobium Business' accounting policy on financial instruments.

Carrying amounts of financial assets and liabilities are as shown below. Where the carrying amount does not approximate its fair value, this is disclosed. For financial assets and liabilities traded on an active market, such as listed investments, fair value is determined by reference to market value. For non-traded financial assets and liabilities, fair value is calculated using discounted cash flows, considered to be consistent with those that would be used by a market participant (based on observable market data where available) unless carrying value is considered to approximate fair value.

US$ thousands	**Loans and receivables**	**30 June 2016 Financial liabilities at amortised cost**	**Total**
Financial assets			
Trade and other receivables[1]	24,933	–	24,933
Cash and cash equivalents	68,870	–	68,870
Lo ans to related party	–	–	–
Financial asset investments	579	–	579
Financial liabilities			
Trade and other payables[1]	–	31,613	(31,613)
Lo ans fro m related party	–	336,000	(336,000)
Net Financial assets	94,382	367,613	(273,231)

US$ thousands	**Loans and receivables**	**31 December 2015 Financial liabilities at amortised cost**	**Total**
Financial assets			
Trade and other receivables[1]	13,859	–	13,859
Cash and cash equivalents	65,647	–	65,647
Loans to related party	–	–	–
Financial asset investments	75	–	75
Financial liabilities			
Trade and other payables[1]	–	23,832	(23,832)
Loans fro m related party	–	336,000	(336,000)
Net Financial assets	79,581	359,832	(280,251)

(1) Trade and other receivables exclude prepayments, accrued income and tax receivables. Trade and other payables exclude tax and social security.

US$ thousands	Loans and receivables	31 December 2014 Financial liabilities at amortised cost	Total
Financial assets			
Trade and other receivables[1]	17,901	–	17,901
Cash and cash equivalents	35,831	–	35,831
Loans to related party	–	–	–
Financial asset investments	3,970	–	3,970
Financial liabilities			
Trade and other payables[1]	–	35,227	(35,227)
Loans fro m related party	–	336,000	(336,000)
Net Financial assets	57,702	371,227	(313,525)

US$ thousands	Loans and receivables	31 December 2013 Financial liabilities at amortised cost	Total
Financial assets			
Trade and other receivables[1]	25,400	–	25,400
Cash and cash equivalents	22,306	–	22,306
Loans to related party	–	–	–
Financial asset investments	540	–	540
Financial liabilities			
Trade and other payables[1]	–	29,589	(29,589)
Loans fro m related party	–	189,994	(189,994)
Net Financial assets	48,246	219,583	(171,337)

(1) Trade and other receivables exclude prepayments, accrued income and tax receivables. Trade and other payables exclude tax and social security.

15. PROVISIONS FOR LIABILITIES AND CHARGES

See note 25n for the Niobium Business' accounting policy on environmental restoration and decommissioning obligations and provisions.

US$ thousands	Legal claims	Environmental restoration & decommissioning	Provision for mining right obligations	Other	Total
At 1January 2013	92	2,978	145,236	–	148,306
Charged to the income statement	2,150	–	–	–	2,150
Capitalised	–	–	(16,749)	–	(16,749)
Unwinding of discount	–	21	9,470	–	9,491
Amounts applied	(80)	–	(8,138)	–	(8,218)
At 1January 2014	2,162	2,999	129,819	–	134,980
Charged to the income statement	452	(286)	–	960	1,126
Capitalised	–	3,632	46,457	–	50,089
Unwinding of discount	–	339	8,437	–	8,776
Amounts applied	(569)	(370)	(7,554)	–	(8,493)
At 1January 2015	2,045	6,314	177,159	960	186,478
Charged to the income statement	2,275	12,113	–	–	14,388
Capitalised	–	510	(940)	–	(430)
Unwinding of discount	–	(2,298)	10,630	–	8,332
Amounts applied	(3,038)	–	(8,300)	(796)	(12,134)
At 1January 2016	1,282	16,639	178,549	164	196,634
Charged to the income statement	1,545	33	–	10	1,588
Capitalised	–	–	12,780	–	12,780
Unwinding of discount	–	4,521	5,356	–	9,877
Amounts applied	(1,082)	–	(3,095)	–	(4,177)
At 1January 2016	1,745	21,193	193,590	174	216,702

Legal Claims

The Niobium Business is subject to a series of legal claims relating to tax, labour and other civil matters. While the Niobium Business continues to actively defend their position, where the chance of loss is considered probable, the potential loss value is estimated and a provision created. This assessment is made together with internal and external legal counsel.

	At 30 June	At 31 December		
US$ thousands	2016	2015	2014	2013
Labour claims	1,486	1,050	1,726	2,094
Others	259	232	319	68
	1,745	1,282	2,045	2,162

In certain instances the Niobium Business is required to put funds on deposit (known as a judicial deposit) as a part of the legal process, refer to note 9 for further information.

Having taken appropriate legal advice, where the Niobium Business believes that the risk of loss is considered remote or possible no provision in created. In terms of claims where the estimated chance of loss is possible, the value of such claims is $1.7 million at 30 June 2016 and relate to labour and environmental claims (31 December 2015: $5.5 million – labour and environmental; 2014: $98 thousand – labour, civil and environmental; 2013: $54 thousand – labour and environmental).

No contingent liabilities were secured on the assets of the Niobium Business at 31 December 2015 or 31 December 2014.

Environmental restoration & decommissioning

The Niobium Business has an obligation to undertake restoration, rehabilitation and environmental work when environmental disturbance is caused by the development or ongoing production of a mining property. A provision is recognised for the present value of such costs, based on management's best estimate of the legal and constructive obligations incurred. These estimates reflect industry best practice and currently applicable legislation. Significant changes in legislation could result in changes in provisions recognised. It is anticipated that these costs will be incurred over a period in excess of 20 years.

Provision is also made for the present value of costs relating to the decommissioning of plant or other site restoration work. It is anticipated that these costs will be incurred over a period in excess of 20 years.

Intangible Mining and Exploration Rights

Refer to note 7

In October 2000 Anglo American purchased from a third party (together with other purchase consideration) a minority stake in the company that owned the niobium operations for a nominal fee plus a 4.5% revenue-linked royalty. As a result of accounting under IFRS6, applicable at the time, the fair value of the future royalty stream was determined to be a form of contingent consideration and a provision was included in the statements of financial position. At the time of the transaction the future royalty stream was considered to reflect the value of the mining rights acquired and such asset was recognised. The provision is re-assessed at the end of each reporting period, with any change in the provision being reflected as a value change to the mining right asset.

16. DEFERRED TAX

See note 25c for the Niobium Business' accounting policy on tax.

The movement in net deferred tax assets/(liabilities) during the year is as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Opening balance	5,263	(12,398)	18,360	19,095
Charged/(credited) to the income statement/to equity	3,172	17,429	(28,456)	(3,896)
Charged/(credited) directly to equity	(38)	232	(2,302)	3,161
Closing balance	8,397	5,263	(12,398)	18,360

The amount of deferred tax recognised in the statement of financial position is as follows:

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Deferred tax liabilities				
Provisions	–	–	–	–
Other temporary differences	(42,965)	(32,904)	(39,912)	(13,275)
	(42,965)	(32,904)	(39,912)	(13,275)

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Deferred tax assets				
Provisions	6,448	6,918	1,911	1,088
Other temporary differences	44,914	31,249	25,603	30,547
	51,362	38,167	27,514	31,635

The amount of deferred tax recognised in the statement of financial position is as follows:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Provisions	470	(8,041)	(5,006)	(823)	231
Other temporary differences	(3,642)	(3,901)	(12,423)	29,279	3,665
Deferred tax as per the income statement	(3,172)	(11,942)	(17,429)	28,456	3,896

17. COMMITMENTS

A commitment is a contractual obligation to make a payment in the future which is not provided for in the statements financial position.

Capital commitments at 30 June 2016 relating to the acquisition of plant, property and equipment as well as purchase of electricity and equipment rental costs of $2.1 million (31 December 2015: $32 thousand; 2014: $11 thousand; 2013: $8 thousand), of which 100% (all periods) relates to expenditure to be incurred within the next year.

At 31 December the Niobium Business had the following commitments under operating leases principally related to vehicles:

US$ thousands	30 June 2016	12 months ended 31 December 2015	2014	2013
Expiry				
Within one year	166	151	273	208
1–2 years	84	111	211	129
2–3 years	2	26	145	–
3–5 years	–	–	14	–
Greater than 5 years	–	–	–	–
	252	288	643	337

18. EMPLOYEE NUMBERS AND COSTS

The average number of employees, excluding contractors, was 610 in the 6 month period ended 30 June 2016 (year ended 2015: 549; 2014: 513; 2013: 421). The principal location of employees is Brazil.

Payroll costs in respect of these employees were:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Wages and salaries	14,900	12,460	22,960	25,109	19,637
Social security costs	3,703	3,399	5,858	5,742	5,446
Post employment benefits[1]	11	35	35	29	64
Share-based payments	368	583	1,006	1,264	904
(-) Capitalised costs	1,568	1,842	3,749	7,938	–
Employee costs included in operating	20,550	18,319	33,608	40,082	26,051

(1) Includes contributions to defined contribution pension and medical plans, current and past service costs related to defined benefit pension and medical plans and other benefits provided to certain employees during retirement, see note 19.

Share-based payments

During the period and years the Niobium Business had share-based payment arrangements with certain employees relating to shares of its ultimate parent entity, Anglo American Plc. These were two separate plans, the BSP (bonus share plan) for directors and managers and the LTIP (long term incentive plan) for directors. Both plans are settled by the award of ordinary shares to these employees conditional on three years continuous employment from the date of award. The fair value of ordinary shares under the BSP and LTIP was calculated using a Black Scholes model and the Niobium Business accounts for these short-based payments as being "cash-settled" in accordance with IFRIC11.

The number of instruments granted in each period was:

	12 months ended 31 December		
Share based Payment	**2015**	**2014**	**2013**
Number of instruments	14,359	32,101	76,635

Director's Remuneration

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Niobium Business, directly or indirectly, including any director (executive and non-executive) of the AANB.

Compensation for key management was as follows:

	6 months ended 30 June	6 months ended 30 June (unaudited)	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2015**	**2014**	**2013**
Salaries, allowances and benefits in kind	244	67	194	385	734
	244	67	194	385	734

Individuals by remuneration range

	6 months ended 30 June	6 months ended 30 June (unaudited)	12 months ended 31 December		
HK$ thousands	**2016**	**2015**	**2015**	**2014**	**2013**
0–1,000	–	1	–	1	–
1,000–1,500	–	–	1	–	–
1,500–2,000	1	–	–	1	–
2,000–2,500	–	–	–	–	1
2,500–3,000	–	–	–	–	–
3,000–3,500	–	–	–	–	1
	1	1	1	2	2

Directors' emoluments comprise salaries and other benefits, performance bonus, incentive awards and directors' fees.

Top five salaries

The five highest paid individuals of the Niobium Business included two directors during the year ended December 31, 2013 and one director for the year ended December 31, 2014 and 2015, and the 6 months ended 30 June 2016 respectively. Details of whose emoluments are set out above. The emoluments of the remaining top five individuals are as follows:

Individuals by remuneration range

	6 months ended 30 June	6 months ended 30 June (unaudited)	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2015**	**2014**	**2013**
Salaries, allowances and benefits in kind	420	502	623	884	764
	420	502	623	884	764

Individuals by remuneration range

	6 months ended 30 June	6 months ended 30 June (unaudited)	12 months ended 31 December		
HK$ thousands	**2016**	**2015**	**2015**	**2014**	**2013**
0–1,000	3	5	–	–	–
1,000–1,500	1	–	4	1	1
1,500–2,000	–	–	–	2	1
2,000–2,500	–	–	–	1	–
2,500–3,000	–	–	–	–	1
3,000–3,500	–	–	–	–	–
	4	5	4	4	3

19. RETIREMENT BENEFITS

See note 25o for the Niobium Business' accounting policy on retirement benefits.

Niobium Business operates a defined contribution pension plan administered by Fundambrás Sociedade de Previdência Privada (Fundambrás), a private company set up solely for the purpose of managing and administrering the pension plans of Anglo American entities located in Brazil. Niobium Business is one of the sponsors of the pension plan and is responsible for the payment of contributions related to its employee base. Historically, this pension plan was defined benefit in nature and therefore certain pension obligations exist related to this period.

Defined contribution plans

The defined contribution pension represents the actual contributions payable by the Niobium Business to the pension plan. These are segregated into two types of plans:

- Basic Plan: where contributions are made solely by the Niobium Business (as Sponsor) based on a defined percentage of the participants salary calculated in accordance with the plan rules.

- Supplementary Plan: where the participant elects to make contributions at either 3, 4 or 5% of their salary and the Niobium Business (as sponsor) must provide a contribution equal to 50% of the monthly contribution made by the participant.

At 30 June 2016 there were no material outstanding or prepaid contributions and so no accrual or prepayment has been disclosed in the statements of financial position in relation to these plans.

The assets of the defined contribution plans are held separately in independently administered funds. The charge in respect of these plans is calculated on the basis of the contribution payable by the Niobium Business in the relevant period.

Defined benefit pension plans

A summary of the movements in the net pension plan assets and retirement benefit obligations on the statements of financial position is as follows:

	6 months ended 30 June	**12 months ended 31 December30**		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Net liability recognised at 1 January	(261)	(381)	(636)	(373)
Net income statement charge	30	64	99	89
Other	186	56	156	(352)
Net liability recognised at 30 June/31 December	(45)	(261)	(381)	(636)

The defined benefit element of the pension plan was active until 30 November 1998, when the plan rules were amended such that all active participants at that date (and going forward) were converted on to defined contribution arrangements. The remaining defined benefit obligation relates to inactive members (those who have retired or had otherwise left the employment of the Niobium Business prior to November 1998). The actuarial liability that existed at the date of transfer of the plan (to defined contribution) was to be funded by the Niobium Business over a 20 year period (from the date of transfer). The value of the remaining balance at 30 June 2016 was $45 thousand (December 2015: $265 thousand; 2014: $381 thousand; 2013: $518 thousand) due to be fully funded by 30 November 2018.

On the 1st May 2016 the Niobium Business transferred its inactive membership to another entity in the Anglo American plc group for a one-time payment equal to the net liability value at the date of transfer.

The assets of these plans are held separately from those of the Niobium Business, in independently administered funds, in accordance with statutory requirements or local practice.

Independent qualified actuaries carry out full valuations annually using the projected unit credit method. The actuaries have updated the valuations to 30 June 2016. Assumptions are set after consultations with the qualified actuaries. While management believes the assumptions used are appropriate, a change in the assumptions used would impact the Niobium Business' other comprehensive income.

Characteristics and risks of plans

The defined benefit plan exposes the Niobium Business to risks such as longevity, investment risk, inflation risk and interest rate risk.

The weighted average duration of the scheme is 8.3 years (2015:8.3 years; 2014:8.9 years; 2013:9.1 years). This represents the average period over which future benefit payments are expected to be made.

Employer contributions are made in accordance with the terms of the plan and vary each year. Employer contributions made in the period ended 30 June 2016 were $23 thousand (year ended 31 December 2015: $82 thousand; 2014: $139 thousand; 2013: $143 thousand). The Niobium Business expects to contribute BRL 213,645 (approximately $72 thousand in 30 June 2016) in the full year ended 31 December 2016.

The responsibility for the governance of the plans, including investment and funding decisions, lies with Fundambrás.

Actuarial assumptions

The principal assumptions used to determine the actuarial present value of benefit obligations and pension charges and credits are detailed below (shown as weighted averages) (no data is provided for 30 June given that no defined benefit obligation existed at that date):

	30 June	12 months ended 31 December		
%	**2016**	**2015**	**2014**	**2013**
Defined benefit pension plans				
Average discount rate for plan liabilities	n/a	13.3%	11.3%	10.8%
Average rate of inflation	n/a	5.5%	5.0%	5.0%
Average rate of increase of pensions in payment	n/a	5.5%	5.0%	5.0%

Mortality assumptions are determined based on standard mortality tables with adjustments, as appropriate, to reflect experience of conditions locally. The mortality table AT-2000 Basic is used. The mortality table used at 31 December 2015 implies that a male or female aged 60 at the end of reporting period has a future life expectancy of 24.6 years (2014: 23.6 years; 2013: 23.6 years) and 27.4 years (2014: 26.5 years; 2013: 26.5 years), respectively.

Sensitivity analysis

Significant actuarial assumptions for the determination of pension liabilities are the discount rate, inflation rate and mortality. The sensitivity analysis below has been provided by local actuaries on an approximate basis based on changes of the assumptions occurring at the end of the period assuming that all other assumptions are held constant and the effect of the interrelationships is excluded. No sensitivity is provided at 30 June 2016 as the defined benefit obligation no longer existed at that date. The effect of the plan liabilities is as follows:

	30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Discount rate – 0.5% decrease	(11)	(49)	(74)	(72)
Inflation rate – 0.5% increase	(5)	(4)	–	–
Life expectancy – increase by one year	4	(5)	(0)	(6)

Income statement

The amounts recognised in the Income statement are as follows:

US$ thousands	Charge to operating costs	Net charge to net finance costs	Total
6 months ended 30 June 2016			
Pension plans	11	19	30
	11	19	30
Year ended 31 December 2015			
Pension plans	35	29	64
	35	29	64
Year ended 31 December 2014			
Pension plans	45	54	99
	45	54	99
Year ended 31 December 2013			
Pension plans	61	28	89
	61	28	89

US$ thousands	Charge to operating costs	Net charge to net finance costs	Total
6 months ended 30 June 2015 (unaudited)			
Pension plans	35	29	64
	35	29	64

Comprehensive income

The amounts recognised in the Statement of comprehensive income are as follows:

US$ thousands	**Return on plan assets (excl. interest income)**	**Actuarial gains/ (losses) on plan liabilities**	**Total**
6 months ended 30 June 2016			
Pension plans	248	–	248
	248	–	248
Year ended 31 December 2015			
Pension plans	(193)	190	(3)
	(193)	190	(3)
Year ended 31 December 2014			
Pension plans	78	(47)	32
	78	(47)	32
Year ended 31 December 2013			
Pension plans	(607)	328	(279)
	(607)	328	(279)

US$ thousands	**Return on plan assets (excl. interest income)**	**Actuarial gains/ (losses) on plan liabilities**	**Total**
6 months ended 30 June 2015 (unaudited)			
Pension plans	(97)	95	(2)
	(97)	95	(2)

(1) Comprises (losses)/gains from changes in financial and demographic assumptions as well as experience on plan liabilities.

Pension plan assets and liabilities

The present value of funded obligations in defined benefit pension plans and the fair value of the pension assets at 31 December is as follows:

	30 June	31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Equity	–	22	43	30
Bonds	306	797	1,285	1,331
Cash	–	–	–	–
Other	4	90	129	67
Fair value of pension plan assets[(1)]	310	909	1,457	1,428
Active members	(355)	(344)	(617)	(665)
Deferred/pensioners	–	(826)	(1,221)	(1,399)
Present value of funded obligations	(355)	(1,170)	(1,838)	(2,064)
Recognised net deficit	(45)	(261)	(381)	(636)

(1) The fair value of assets is used to determine the funding level of the plans.

All investments have been fair valued based on quoted market prices.

Movement analysis

The changes in the fair value of plan assets are as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
At 1 January	909	1,457	1,428	2,124
Interest income	47	127	164	184
Return on plan assets, excluding interest income	248	(193)	78	(607)
Employer contributions	23	83	156	156
Employee contributions	1	2	7	5
Benefits paid	(30)	(93)	(192)	(154)
Other incl. foreign exchange gain/loss	(888)	(474)	(184)	(280)
At 30 June/31 December	310	909	1,457	1,428

The changes in the present value of defined benefit pension obligations are as follows:

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
At 1 January	(1,170)	(1,838)	(2,064)	(2,497)
Current service costs	(11)	(35)	(45)	(61)
Interest costs	(67)	(156)	(218)	(212)
Employer contributions	(1)	(3)	(6)	(5)
Actuarial (losses)/gains	–	190	(47)	328
Benefits paid	30	93	192	154
Other incl. foreign exchange gain/loss	864	579	350	229
At 30 June/31 December	(355)	(1,170)	(1,838)	(2,064)

20. SHARE CAPITAL AND EQUITY ANALYSIS

Share capital

The share capital (both authorised and in issue) has a value of $236.3 million and relates to 647,690,254 shares with a unit value of BRL$1.

Interest on own capital

In line with fiscal legislation in Brazil, the Niobium Business issued its shareholders a payment of interest on own capital amounting to $6.6 million in 2015 (2014: $7.2 million; 2013: $7.2 million). This amount was calculated using the long term interest in Brazil known as Taxa de Juros de Longo Prazo (TJLP), for the period 1 January to 31 December 2015

Other reserves

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Pension reserve	11	(63)	110	(34)
Hedge Derivatives	–	–	277	(4,047)
Total other reserves	11	(63)	387	(4,081)
Pension reserve				
Opening balance	(63)	110	(34)	155
Actuarial gains/(losses), net of tax	74	(173)	144	(189)
Closing balance	11	(63)	110	(34)
Hedge derivatives				
Opening balance	–	277	(4,047)	1,901
Additions	–	(277)	4,324	(5,948)
Closing balance	–	–	277	(4,047)

The legal reserve has been constructed via setting aside up to 5% of annual retained profits to the limit of 20% of share capital.

21. AUDITOR'S REMUNERATION

The following amounts were paid or payable to Deloitte Touche Tohmatsu Auditores Independentes, being the Niobium Business' auditor in all periods presented:

	6 months ended 30 June	6 months ended 30 June (unaudited)	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2015**	**2014**	**2013**
Paid to the Company's auditor for audit of the annual financial statements	149	62	95	128	121
Total audit fees	149	62	95	128	121

22. RELATED PARTY TRANSACTIONS

The immediate parent and ultimate holding company of the AANB are Ambras Holdings SÀRL and Anglo American plc, respectively.

The Niobium Business, in the ordinary course of business, enters into various sales, purchase and service transactions with other entities in the Anglo American plc group. These transactions are under terms that are no less favourable to the Niobium Business than those arranged with third parties.

Throughout the Relevant Period, those persons having the authority and responsibility for planning, directing and controlling the activities of the Niobium Business were employed by a separate legal entity. For this reason it is not relevant to disclose historical financial information relating to those individuals

The table below details the balances with related parties:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Assets				
Accounts receivable				
Anglo Operations Limited	45	211	357	518
Anglo American Services UK Ltd	185	79	302	272
Anglo American Niquel Brazil	2,273	2,398	946	–
Anglo American Fosfatos Brasil	1,433	1,898	2,350	5
Anglo American Chile	84	–	–	–
	4,020	4,586	3,955	795

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Liabilities				
Accounts payable				
Anglo Operations Limited	154	–	325	522
Anglo American Services UK Ltd	289	313	276	292
Anglo American Chile	64	112	148	61
Anglo American Minerio de Ferro Brasil	197	67	56	345
Anglo American Fosfatos Brasil	853	1,116	778	622
Anglo American Niquel Brazil	1,116	1,677	872	91
Nickel Marketing London	395	556	760	–
Copper Marketing Singapore	273	194	61	–
Anglo American Services UK Ltd	61	115	90	–
Commercial London	343	343	687	–
Commercial Singapore	446	446	204	–
	4,191	4,939	4,257	1,933
Loans payable – Anglo Amrerican Capital plc[1]	336,000	336,000	336,000	189,994

(1) The loan from Anglo American Capital is unsecured and bears interest monthly at a variable rate. The loan is repayable on demand.

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Receipt of services					
Anglo American Services UK Ltd	(203)	(340)	(741)	(374)	(493)
Anglo Operations Limited	(58)	(245)	(516)	(325)	(953)
Anglo American Chile	(60)	(79)	(157)	(219)	(137)
Anglo American Minerio de Ferro Brasil	(528)	(389)	(849)	(1,143)	(201)
Anglo American Fosfatos Brasil	(306)	(354)	(592)	(4,612)	(1,466)
Anglo American Niquel Brazil	(1,437)	(5,621)	(8,169)	(3,828)	(1,404)
	(2,592)	(7,028)	(11,024)	(10,501)	(4,654)

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Provision of services					
Nickel Marketing London	372	332	534	739	–
Commercial London	314	457	357	722	–
Commercial Singapore	314	459	653	523	–
Copper Marketing Singapore	79	53	115	28	–
Anglo American Services UK Ltd	139	–	140	–	35
Anglo Operations Limited	–	–	–	–	931
Anglo American Niquel Brazil	211	312	2,651	197	01
Anglo American Fosfatos Brasil	655	658	2,244	4,228	1,237
	2,084	2,271	6,694	6,437	2,204

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Interest paid/accrued					
Commercial London	532	107	187	230	–
Commercial Singapore	17	3	4	16	–
Anglo American Capital plc	5,466	4,925	10,112	8,783	2,676

In accordance with IAS 24 Related Party Disclosures (Amended), key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Niobium Business, directly or indirectly, including any director (executive and non-executive) of the AANB.

Information relating to pension fund arrangements is disclosed in note 19.

23. EVENTS OCCURRING AFTER END OF PERIOD

There have been no reportable events required by IAS 10 from 30 June 2016 to the date of issuance these financial statements.

24. FINANCIAL RISK MANAGEMENT

The Board approves and monitors risk management processes, including documented treasury policies, counterparty limits, controlling and reporting structures.

The types of risk exposure, the way in which such exposure is managed and quantification of the level of exposure in the statements of financial position at 30 June is provided as follows (subcategorised into credit risk, commodity price risk, foreign exchange risk and interest rate risk).

Market Risk

a) Credit risk

Credit risk is the risk that counterparty to a financial instrument will cause a loss to the Niobium Business by failing to pay for its obligation. The Niobium Business' principal financial assets are cash, trade and other receivables and financial investments. The Niobium Business' maximum exposure to credit risk primarily arises from these financial assets as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Cash and cash equivalents	68,870	65,647	35,831	22,306
Trade and other receivables[(1)]	20,990	9,269	13,946	24,605
	89,860	74,916	49,777	46,911

(1) Trade and other receivables exclude prepayments and accrued income.

The Niobium Business limits credit risk on liquid funds through diversification of exposures with a range of approved financial institutions. Counterparty limits are set for each financial institution with reference to credit ratings assigned by Standard & Poor's, Moody's and Fitch Ratings.

Given the Niobium Business' insurance cover (including letters of credit from financial institutions), it does not have significant concentration of credit risk in respect of trade receivables.

A provision for impairment of trade receivables is made where there is an identified loss event, which based on previous experience, is evidence of a reduction in the recoverability of the cash flows.

b) Commodity price risk

The Niobium Business' earnings are exposed to movements in the prices of the commodity it produces. The Niobium Business' policy is to sell its products at prevailing market prices and is generally not to hedge commodity price risk.

The exposure of the Niobium Business' financial assets and liabilities to commodity price risk is as follows (none of the Niobium Business' financial instruments which are linked to a commodity price are subject to change):

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Commodity price linked[(1)]	20,990	9,269	13,946	24,605
Not linked to commodity price	5,645	4,606	12,342	44,324
Total net financial instruments	26,635	13,875	26,288	68,929

(1) Includes receivables and payables for commodity sales and purchases not subject to price adjustment at the end of reporting period.

c) Foreign exchange risk

The Niobium Business is exposed to other currencies principally as a result of non-BRL expenses and to a lesser extent, non-BRL revenues. The Niobium Business' policy is generally not to hedge such exposures.

25. ACCOUNTING POLICIES

Basis of preparation

The basis of preparation is presented in note 1.

Going concern

The management have, at the time of approving the financial statements, a reasonable expectation that the Niobium Business has adequate resources to continue in operational existence for the foreseeable future. Thus the going concern basis of accounting in preparing the financial statements continues to be adopted.

25a. Revenue recognition

Revenue is derived principally from the sale of goods and is measured at the fair value of consideration received or receivable, after deducting discounts, volume rebates, value added tax and other sales taxes. A sale is recognised when the significant risks and rewards of ownership have passed. This is usually when title and insurance risk have passed to the customer.

Revenues from the sale of material by-products are included within revenue. Where a by-product is not regarded as significant, revenue is credited against the cost of sales.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

25b. Borrowing costs

Interest on borrowings directly relating to the financing of qualifying capital projects under construction is added to the capitalised cost of those projects during the construction phase, until such time as the assets are substantially ready for their intended use or sale which, in the case of mining properties, is when they are capable of commercial production. Where funds have been borrowed specifically to finance a project, the amount capitalised represents the actual borrowing costs incurred. Where the funds used to finance a project form part of general borrowings, the amount capitalised is calculated using a weighted average of rates applicable to relevant general borrowings of the Niobium Business during the period. All other borrowing costs are recognised in the income statement in the period in which they are incurred.

25c. Tax

The tax expense includes the current tax and deferred tax charge recognised in the income statement.

Current tax payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are not taxable or deductible. The Niobium Business' liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the reporting date.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary differences arise from the initial recognition of goodwill or of an asset or liability in a transaction (other than in a business combination) that affects neither taxable profit nor accounting profit.

The carrying amount of deferred tax assets is reviewed at each reporting date and is adjusted to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax is charged or credited to the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also taken directly to equity.

Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same taxation authority and the Niobium Business intends to settle its current tax assets and liabilities on a net basis in that taxation authority.

25d. Non-mining licences and other intangibles

Non-mining licences and other intangibles are measured at cost less accumulated amortisation and accumulated impairment losses. Intangible assets are amortised over their estimated useful lives, usually between 3 and 20 years, except goodwill and those intangible assets that are considered to have indefinite lives. For intangible assets with a finite life, the amortisation period is determined as the period over which the Niobium Business expects to obtain benefits from the asset, taking account of all relevant facts and circumstances including contractual lives and expectations about the renewal of contractual arrangements without significant incremental costs. An intangible asset is deemed to have an indefinite life when, based on an analysis of all of the relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate cash flows for the Niobium Business. Amortisation methods, residual values and estimated useful lives are reviewed at least annually.

25e. Property, plant and equipment

Mining properties and leases include the cost of acquiring and developing mining properties and mineral rights.

Mining properties are depreciated to their residual values using the unit of production method based on proved and probable ore reserves and, in certain limited circumstances, other mineral resources. Mineral resources are included in depreciation calculations where there is a high degree of confidence that they will be extracted in an economic manner. Depreciation is charged on new mining ventures from the date that the mining property is capable of commercial production. When there is little likelihood of a mineral right being exploited, or the value of the exploitable mineral right has diminished below cost, an impairment loss is recognised in the income statement.

Capital works in progress are measured at cost less any recognised impairment. Depreciation commences when the assets reach commercial production, at which point they are transferred to the appropriate asset class. Buildings and plant and equipment are depreciated to their residual values at varying rates on a straight line basis over their estimated useful lives or the Reserve Life, whichever is shorter. Estimated useful lives normally vary from up to 20 years for items of plant and equipment to a maximum of 50 years for buildings. Land is not depreciated.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components).

Depreciation methods, residual values and estimated useful lives are reviewed at least annually.

Assets held under finance leases are depreciated over the shorter of the lease term and the estimated useful lives of the assets.

Gains or losses on disposal of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount. The gain or loss is recognised in the income statement.

25f. Deferred stripping

The removal of overburden and other mine waste materials is often necessary during the initial development of a mine site, in order to access the mineral ore deposit. The directly attributable cost of this activity is capitalised in full within mining properties and leases, until the point at which the mine is considered to be capable of commercial production. This is classified as expansionary capital expenditure, within investing cash flows.

The removal of waste material after the point at which a mine is capable of commercial production is referred to as production stripping.

When the waste removal activity improves access to ore extracted in the current period, the costs of production stripping are charged to the income statement as operating costs in accordance with the principles of IAS 2 Inventories.

Where production stripping activity both produces inventory and improves access to ore in future periods the associated costs of waste removal are allocated between the two elements. The portion which benefits future ore extraction is capitalised within stripping and development capital expenditure. If the amount to be capitalised cannot be specifically identified it is determined based on the volume of waste extracted compared with expected volume for the identified component of the orebody. Components are specific volumes of a mine's orebody that are determined by reference to the Life of Mine plan.

In certain instances significant levels of waste removal may occur during the production phase with little or no associated production. The cost of this waste removal is capitalised in full.

All amounts capitalised in respect of waste removal are depreciated using the unit of production method based on proved and probable ore reserves of the component of the orebody to which they relate.

The effects of changes to the Life of Mine plan on the expected cost of waste removal or remaining reserves for a component are accounted for prospectively as a change in estimate.

25g. Impairment of property, plant and equipment and intangible assets excluding goodwill

At each reporting date, the management of Niobium Business reviews the carrying amounts of its property, plant and equipment and intangible assets to determine whether there is any indication that those assets are impaired. If such an indication exists, the recoverable amount of the asset is estimated in order to determine the extent of any impairment. Where the asset does not generate cash flows that are independent from other assets, the management of Niobium Business estimates the recoverable amount of the CGU to which the asset belongs. An intangible asset with an indefinite useful life is tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs of disposal and value in use (VIU). In assessing VIU, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset or CGU is estimated to be less than its carrying amount, the carrying amount of the asset or CGU is reduced to its recoverable amount. An impairment loss is recognised in the income statement.

Where an impairment loss subsequently reverses, the carrying amount of the asset or CGU is increased to the revised estimate of its recoverable amount, but so that the carrying amount does not exceed that which would have been determined had no impairment been recognised. Impairment loss reversal is recognised in the income statement.

25h. Exploration, evaluation and development expenditure

Exploration and evaluation expenditure is expensed in the year in which it is incurred. When a decision is taken that a mining property is economically feasible, all subsequent evaluation expenditure is capitalised within property, plant and equipment including, where applicable, directly attributable pre-production development expenditure. Capitalisation of such expenditure ceases when the mining property is capable of commercial production.

Exploration properties acquired are recognised in the statements of financial position at cost less any accumulated impairment losses. Such properties and capitalised evaluation and pre-production development expenditure prior to commercial production are assessed for impairment in accordance with the Niobium Business' accounting policy stated above.

25i. Financial asset investments

Investments, other than investments in associates, are financial asset investments and are initially recognised at fair value. At subsequent reporting dates, financial assets classified as held-to-maturity or as loans and receivables are measured at amortised cost, less any impairment losses.

Other investments are classified as either at fair value through profit or loss (which includes investments held for trading) or available for sale financial assets. Both categories are subsequently measured at fair value. Where investments are held for trading purposes, unrealised gains and losses for the period are included in the income statement within other gains and losses. For available for sale investments, unrealised gains and losses are recognised in equity until the investment is disposed of or impaired, at which time the cumulative gain or loss previously recognised in equity is recycled to the income statement.

25j. Impairment of financial assets (including receivables)

A financial asset not measured at fair value through profit or loss is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset.

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount and the present value of the estimated cash flows discounted at the asset's original effective interest rate. Losses are recognised in the income statement. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through the income statement.

Impairment losses relating to available for sale investments are recognised when a decline in fair value is considered significant or prolonged. These impairment losses are recognised by transferring the cumulative loss that has been recognised in the statement of comprehensive income to the income statement. The loss recognised in the income statement is the difference between the acquisition cost and the current fair value.

25k. Financial Instruments

Cash and cash equivalents

Cash and cash equivalents comprise cash in hand and on demand deposits, together with short term, highly liquid investments that are readily convertible to a known amount of cash and that are subject to an insignificant risk of changes in value. Cash and cash equivalents are measured at amortised cost.

Financial liabilities and equity instruments

Financial liabilities and equity instruments are classified and accounted for as debt or equity according to the substance of the contractual arrangements entered into.

25l. Derecognition of financial assets and financial liabilities

Financial assets are derecognised when the right to receive cash flows from the asset has expired, the right to receive cash flows has been retained but an obligation to on-pay them in full without material delay has been assumed or the right to receive cash flows has been transferred together with substantially all the risks and rewards of ownership.

Financial liabilities are derecognised when the associated obligation has been discharged, cancelled or has expired.

25m. Inventories

Inventory and work in progress are measured at the lower of cost and net realisable value. The production cost of inventory includes an appropriate proportion of depreciation and production overheads. Cost is determined on the following basis:

- Raw materials and consumables are measured at cost on a weighted average cost basis.
- Work in progress and finished products are measured at raw material cost, labour cost and a proportion of manufacturing overhead expenses.

25n. Environmental restoration and decommissioning obligations

An obligation to incur environmental restoration, rehabilitation and decommissioning costs arises when disturbance is caused by the development or ongoing production of a mining property. Such costs arising from the decommissioning of plant and other site preparation work, discounted to their net present value, are provided for and capitalised at the start of each project, as soon as the obligation to incur such costs arises.

These costs are charged to the income statement over the life of the operation, through the depreciation of the asset and the unwinding of the discount on the provision. Costs for restoration of subsequent site damage which is created on an ongoing basis during production are provided for at their net present values and charge to income as extraction progresses.

Changes in the measurement of a liability relating to the decommissioning of plant or other site preparation work (that result from changes in the estimated timing or amount of the cash flow or a change in the discount rate), are added to or deducted from the cost of the related asset in the current period. If a decrease in the liability exceeds the carrying amount of the asset, the excess is recognised immediately in the income statement. If the asset value is increased and there is an indication that the revised carrying value is not recoverable, an impairment test is performed in accordance with the accounting policy set out above.

25o. Retirement benefits

The Niobium Business operates both defined benefit and defined contribution pension plans for its employees. For defined contribution plans the amount recognised in the income statement is the contributions paid or payable during the year.

For defined benefit pension, full actuarial valuations are carried out at least every three years using the projected unit credit method and updates are performed for each financial year end. The average discount rate for the plans' liabilities is based on AA rated corporate bonds of a suitable duration and currency or, where there is no deep market for such bonds, is based on government bonds. Pension plan assets are measured using year end market values.

Remeasurements comprising actuarial gains and losses, movements in asset surplus restrictions and the return on scheme assets (excluding interest income) are recognised immediately in the statement of comprehensive income and are not recycled to the income statement. Any increase in the present value of plan liabilities expected to arise from employee service during the year is charged to operating profit. The net interest income or cost on the net defined benefit asset or liability is included in investment income and interest expense respectively.

Past service cost is recognised immediately to the extent that the benefits are already vested and otherwise amortised on a straight line basis over the average period until the benefits vest.

The retirement benefit obligation recognised on the statements of financial position represents the present value of the deficit or surplus of the defined benefit plans. Any recognised surplus is limited to the present value of available refunds or reductions in future contributions to the plan.

25p. Share-based payments

The Niobium Business makes equity settled share-based payments to certain employees, which are measured at fair value at the date of grant and expensed on a straight line basis over the vesting period, based on the Niobium Business' estimate of shares that will eventually vest. For those share schemes with market related vesting conditions, the fair value is determined using the Monte Carlo method at the grant date. The fair value of share options issued with non-market vesting conditions has been calculated using the Black Scholes model. For all other share awards, the fair value is determined by reference to the market value of the shares at the grant date. For all share schemes with non-market vesting conditions, the likelihood of vesting has been taken into account when determining the relevant charge. Vesting assumptions are reviewed during each reporting period to ensure they reflect current expectations.

25q. Foreign currency transactions and translation

Foreign currency transactions are recognised in the functional currency of the Niobium Business at the exchange rate ruling on the date of the transaction. At each reporting date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing on the reporting date. Gains and losses arising on retranslation are included in the income statement for the period and are classified as either operating or financing depending on the nature of the monetary item giving rise to them.

Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

25r. Leases

In addition to lease contracts, other significant contracts are assessed to determine whether, in substance, they are or contain a lease. This includes assessment of whether the arrangement is dependent on use of a specific asset and the right to use that asset is conveyed through the contract.

Rental costs under operating leases are recognised in the income statement in equal annual amounts over the lease term.

Yours faithfully

Deloitte Touche Tohmatsu
Auditores Independentes
São Paulo, Brazil

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ACCOUNTANTS' REPORT ON THE PHOSPHATES BUSINESS

8 September 2016

The Directors
China Molybdenum Co., Ltd

Dear Sirs,

We set out below our report on the financial information (the "**Financial Information**") of the Phosphates Business (as defined below), which is proposed to be sold by Anglo American plc's wholly-owned subsidiary Ambras Holdings Limited ("**Ambras**") as vendor and acquired by China Molybdenum Co., Ltd. ("**CMOC**" or the "**Company**") as purchaser pursuant to a binding agreement entered into effective 27 April 2016, for each of the three years ended 31 December 2013, 2014 and 2015 and the period of six months ended 30 June 2016 (the "**Relevant Period**") for inclusion in the circular of CMOC dated 8 September 2016 (the "**Circular**") in connection with the proposed acquisition of the Phosphates Business by the Company, which, together with the proposed acquisition of the Niobium Business constitutes a major acquisition under the Rules Governing the Listing of Securities on the Main Board of The Stock Exchange of Hong Kong Limited (the "**Stock Exchange**") (the "**Listing Rules**"). The Phosphates Business represents (i) through Anglo American Fosfatos Brazil Limitada ("**AAFB**"), all the assets held by and business conducted by that entity and (ii) certain land and mining rights held by Anglo American Niquel Brazil Limitada, a wholly owned subsidiary of Anglo American plc, but relevant to the conduct of the phosphates operation, which have been acquired by AAFB on 23 May 2016. The Financial Information of the Phosphates Business has been prepared as if these assets, mining rights and operations were always jointly held throughout the Relevant Period.

AAFB was incorporated in the Federative Republic of Brazil as a limited liability company on 2 January 1975. The principle business of AAFB is extraction of phosphate rock and the production of sulphuric & phosphoric acids, bi-calcium phosphate and a variety of intermediary & final fertiliser products. AAFB have adopted December 31 as its financial year end date and its statutory financial statements for the three years ended December 31, 2015 were prepared in accordance with the General Accepted Accounting Principles adopted in Brazil and were audited by Deloitte Touche Tohmatsu Brazil, which is a firm of certified public accountants registered in Brazil.

For the purpose of this report, the management of Phosphates Business has prepared the financial statements of the Phosphates Business for the Relevant Period (the "**Underlying Financial Statements**") using accounting policies which are in accordance with International Financial Reporting Standards ("**IFRS**") issued by the International Accounting Standards Board ("**IASB**") (the "**Underlying Financial Statements**"). We have undertaken an independent audit of the Underlying Financial Statements in accordance with the International Standards on Auditing ("**ISA**") issued by the International Auditing and Assurance Standards Board "**IAASB**").

We have examined the Underlying Financial Statements in accordance with the Auditing Guideline 3.340 "Prospectuses and the Reporting Accountant" issued by the Hong Kong Institute of Certified Public Accountants.

The Financial Information set out in this report has been prepared by the directors of the Company based on the aforementioned Underlying Financial Statements and in accordance with the accounting policies set out in Note 1 of Section A to the Financial Information for inclusion in the Circular. No adjustments were considered necessary to the Underlying Financial Statements in the preparation of the Financial Information for inclusion in the Circular.

The Underlying Financial Statements are the responsibility of the management of Phosphates Business who approved their issue. The directors of the Company are responsible for the Financial Information and the contents of the Circular in which this report is included. It is our responsibility to form an independent opinion on the Financial Information and to report our opinion to you.

In our opinion, the Financial Information, for the purpose of this report and on the basis of presentation set out in note 1 of Section A below, gives a true and fair view of the state of affairs of the Phosphates Business as at 31 December 2013, 31 December 2014, 31 December 2015 and 30 June 2016, and of the results and cash flows of the Phosphates Business for the Relevant Period.

The comparative income statement, statement of comprehensive income, statement of equity and statement of cash flows of the Phosphates Business for the six months ended 30 June 2015, together with the notes thereon (together the "June 2015 Financial Information") have been extracted from the Phosphates Businesses' unaudited financial statements for the same period (the "June 2015 Underlying Financial Statements") which were prepared by management of the Phosphates Business for the purpose of this report. The June 2015 Financial Information set out in this report has been prepared by the directors of the Company based on the aforementioned June 2015 Underlying Financial Statements.

We conducted our review of the June 2015 Financial Information in accordance with the International Standard on Review Engagements 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the IAASB. Our review of the June 2015 Financial Information consisted of making enquiries, primarily of the persons responsible for the financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with the International Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the June 2015 Financial Information.

Based on our review, which is not an audit, nothing has come to our attention which causes us to believe that the June 2015 Financial Information does not in all material respects present a true and fair view in accordance with the basis of preparation set out in Note 1 of Section A to the Financial Information.

A. FINANCIAL INFORMATION OF THE PHOSPHATES BUSINESS

Income Statement

For the years ended 31 December 2013, 2014 and 2015 and the 6 month period ended 30 June 2016 and 2015

US$ thousands	*Note*	**6 months ended 30 June 2016**	**6 months ended 30 June (unaudited) 2015**	**12 months ended 31 December 2015**	**2014**	**2013**
Revenue	4	215,543	217,929	431,117	487,035	543,793
Operating costs	4	(168,376)	(181,578)	(341,039)	(426,004)	(463,971)
Profit before net finance costs and tax		47,167	36,351	90,078	61,031	79,822
Investment income	5	5,684	4,288	10,361	7,672	7,417
Other financing gain/ (losses)	5	9,819	(10,604)	(26,915)	(13,192)	(12,765)
Net finance costs		15,503	(6,316)	(16,554)	(5,520)	(5,348)
Profit before tax		62,670	30,035	73,524	55,511	74,474
Income tax (expense)/ income	6b	(22,227)	(9,398)	(21,702)	(14,545)	(22,323)
Prof it for the period/years		40,443	20,637	51,822	40,966	52,151

Statement of Comprehensive Income

For the years ended 31 December 2013, 2014 and 2015 and the 6 month period ended 30 June 2016 and 2015

US$ thousands	*Note*	**6 months ended 30 June 2016**	**6 months ended 30 June (unaudited) 2015**	**12 months ended 31 December 2015**	**2014**	**2013**
Profit for the period/years		40,443	20,637	51,822	40,966	52,151
Other comprehensive income[(1)]		2,416	–	(1,024)	(1,722)	4,570
Total comprehensive (expense)/income for the period/years attributable to the equity shareholder o f the Company		42,859	20,637	50,798	39,244	56,721

(1) The nature of the Other Comprehensive Income is Pension Plan. All entries will be kept in equity not being reclassified subsequently to the P&L.

Statements of Financial Position

As at 31 December 2013, 2014 and 2015 and 30 June 2016 and 2015

US$ thousands	*Note*	30 June 2016	2015	31 December 2014	2013
ASSETS					
Non-current assets					
Intangible assets	7	1,927	1,743	1,119	1,444
Property, plant and equipment(+)	8	175,387	137,807	182,938	177,621
Pro forma land acquisition[(1)]	8	–	462	689	776
Biological assets	9	2,135	4,139	9,973	14,157
Financial asset investments	10	31,102	24,821	32,195	35,780
Trade and other receivables	12	8,525	8,376	11,397	12,262
Total non-current assets		219,076	177,348	238,311	242,040
Current assets					
Inventories	11	79,015	77,652	87,142	73,004
Trade and other receivables	12	68,961	35,963	60,235	60,354
Related party receivables	23	4,800	3,699	1,409	1,055
Cash and cash equivalents	13	96,156	41,952	31,967	44,689
(-) Pro forma land acquisition[(1)]	13	–	(462)	(689)	(776)
Total current assets		248,932	158,804	180,064	178,326
Total assets		468,008	336,152	418,375	420,366

US$ thousands	*Note*	30 June 2016	2015	31 December 2014	2013
LIABILITIES					
Current liabilities					
Trade and other payables	14	56,904	36,705	50,927	57,140
Related party payables	23	6,382	4,999	3,895	808
Current tax liabilities		10,518	4,767	3,577	1,656
Total current liabilities		73,804	46,471	58,399	59,604
Non-current liabilities					
Loans from related parties	15	57,500	57,500	77,471	67,499
Deferred tax liabilities	17	3,309	1,193	6,632	7,488
Provisions for liabilities and charges	16	36,938	30,645	25,604	30,602
Total non-current liabilities		97,747	89,338	109,707	105,589
Total liabilities		171,551	135,809	168,106	165,193
Net assets		296,457	200,343	250,269	255,173
EQUITY					
Share capital	21	188,588	46,838	46,838	46,838
Retained earnings		209,792	302,650	260,905	232,313
Other reserves	21	(101,923)	(149,145)	(57,474)	(23,978)
Total equity		296,457	200,343	250,269	255,173

(1) Refer to Note 1 – Basis of Preparation

Cash Flow Statement

For the years ended 31 December 2013, 2014 and 2015 and the 6 month period ended 30 June 2016 and 2015

US$ thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
I. Cash flow from operating activities:						
Cash received from sales of goods and provision of services		228,044	221,718	469,199	526,420	588,228
Other cash receipts relating to operating activities		636	2,026	4,319	5,443	2,979
Cash payments for goods purchased and services received		(134,393)	(164,022)	(313,269)	(400,063)	(419,674)
Cash payments to and on behalf of employees		(25,698)	(28,252)	(47,639)	(71,674)	(69,336)
Payments of various types of taxes		(21,218)	(11,877)	(35,806)	(27,378)	(36,004)
Other cash payments relating to operating activities		(12)	(16)	(28)	(38)	(33)
Net cash flow from operating activities		47,359	19,577	76,776	32,710	66,160

US$ thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
II. Cash flows from investing activities:						
Intangible assets and other long-term assets		(12,866)	(11,974)	(25,651)	(39,546)	(32,104)
Net cash flow from investing activities		(12,866)	(11,974)	(25,651)	(39,546)	(32,104)
III. Cash flows from financing activities:						
Other cash receipts relating to financing activities		3,078	1,869	6,253	3,896	3,046
Capital Increase		–	–	–	10,000	27,500
Cash repayments of borrowings		–	–	(20,000)	–	(43,000)
Profits and settlement of interests		–	–	(10,076)	(10,499)	(7,877)
Other cash payments relating to financing activities		(935)	(1,136)	(2,258)	(1,764)	(2,893)
Net cash flow from financing activities		2,143	733	(26,081)	1,633	(23,224)

US$ thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
IV. Effect of foreign exchange rate changes on						
Cash and cash equivalents		17,568	(5,502)	(15,059)	(7,519)	(7,214)
V. Net increase/(decrease) in cash and cash equivalents		54,204	2,834	9,985	(12,722)	3,618
Add: Opening balance of cash and cash equivalents		41,952	31,967	31,967	44,689	41,071
VI. Closing balance o f cash and cash equivalents	13	96,156	34,801	41,952	31,967	44,689
(-) pro forma land acquisition	13	–	–	(462)	(689)	(776)
VII. Pro Forma closing balance of cash and cash equivalents	13	96,156	34,801	41,490	31,278	43,913

Statement of Changes in Equity

For the years ended 31 December 2013, 2014 and 2015 and the 6 month period ended 30 June 2016 and 2015

US$ thousands	*Note*	**Share capital**	**Retained earnings**	**Other reserves[1]**	**Total Equity**
Al 1 January 2013		46,838	188,002	7,809	242,649
Total comprehensive income		–	52,151	–	52,151
Pension plan	21	–	–	4,570	4,570
Interest own capital	21	–	(7,840)	–	(7,840)
Foreign exchange (CTA)	21	–	–	(36,357)	(36,357)
Al 1 J anuary2014		46,838	232,313	(23,978)	255,173
Total comprehensive income	21	–	39,333	1,633	40,966
Pension plan	21	–	–	(1,722)	(1,722)
Interest own capital	21	–	(10,741)	–	(10,741)
Foreign exchange (CTA)	21	–	–	(33,407)	(33,407)
Al 1 January 2015		46,838	260,905	(57,474)	250,269
Total comprehensive income		–	51,822	–	51,822
Pension Plan	21	–	–	(1,024)	(1,024)
Interest own capital	21	–	(10,077)	–	(10,077)
Foreign exchange (CTA)	21	–	–	(90,647)	(90,647)
Al 1 January2016		46,838	302,650	(149,145)	200,343
Share capital increase	21	141,750	(133,301)	(8,449)	–
Total comprehensive income		–	40,443	–	40,443
Pension plan	21	–	–	2,416	2,416
Interest own capital		–	–	–	–
Foreign exchange (CTA)	21	–	–	53,255	53,255
At 30 June 2016		188,588	209,792	(101,923)	296,457

(1) Refer to Note 21

	Note	**Share capital**	**Retained earnings**	**Other reserves[1]**	**Total Equity**
At 1January 2015		46,838	260,905	(57,474)	250,269
Total comprehensive income		–	20,479	–	20,479
Foreign exchange (CTA)	21	–	–	(37,329)	(37,329)
At 30 June 2015 (unaudited)		46,838	281,384	(94,803)	233,419

1. GENERAL INFORMATION

Throughout the Relevant Period, Anglo American's interest in AAFB was held by Ambras. Anglo American is comprised on Anglo American plc and their respective subsidiaries, joint arrangements and associates. Collectively AAFB's operations being, as well as certain land and mining rights relevant to the business are referred to as the Phosphates Business throughout this document. When used in this document, Anglo, Anglo American or Owner refers to Anglo American and, where applicable, one or more of its subsidiaries, joint arrangements and associates.

Throughout the Relevant Period, the Phosphate Business was headquartered in Brazil. It is currently headquartered in the city of Belo Horizonte in the state of Minas Gerais, since 8 April 2014, but prior to this time was based in the city of São Paulo in the state of the same name.

On 27 April 2016, Anglo American announced it has reached a binding agreement for the sale of the Phosphates Business and Niobium Business to China Molybdenum Co., Ltd. ("**CMOC**") for an aggregate consideration of $1.5 billion. U.S. dollars ("**USD**") (equivalent to approximately $11.6 billion Hong Kong dollars ("**HKD**") at the announcement date), subject to certain conditions.

Description of the business

AAFB mines phosphate rock in Ouvidor in the state of Goias and operates two chemical plants (one in Catalão, also in Goias and one in Cubatão in the state of São Paulo) to produce a range of phosphate based fertilizer products, as well as phosphoric acid and dicalcium phosphate (used in the production of animal feed).

Basis of preparation of historical combined financial information

The historical combined financial information has been prepared in accordance with IFRS, with the exception of the fact that IFRS do not provide for the preparation of historical combined financial information and accordingly in preparing the historical combined financial information of the Phosphates Business there have been certain departures from IFRS, which are discussed in more detail below. In all other respects, IFRS has been applied.

Historical combined financial information

The historical combined financial information has been prepared with the objective of presenting the results and net assets of the Phosphates Business for the reporting periods outlined in this report, including certain additional assets which were only formally transferred to AAFB on 23 May 2016 as a part of the acquisition by China Molybdenum Co. Limited.

The assets (which comprise a parcel of land and certain exploration permits & licences) have, for the periods presented, been under the ownership of another legal entity. However, those assets and the costs associated with them have been reflected in this historical combined financial information as if they were always under the ownership of AAFB.

2. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the course of preparing financial statements, management necessarily makes judgements and estimates that can have a significant impact on the financial statements. The most critical of these relate to impairment of assets, taxation, retirement benefits, contingent liabilities, estimation of Ore Reserves, assessment of fair value, restoration, rehabilitation and environmental costs and deferred stripping. The use of inaccurate assumptions in assessments made for any of these judgements and estimates could result in a significant impact on financial results.

Critical accounting judgements

Impairment of assets

Mining operations are large, scarce assets requiring significant technical and financial resources to operate. Their value may be sensitive to a range of characteristics unique to each asset and key sources of estimation uncertainty include ore reserve estimates and cash flow projections.

In performing impairment reviews, the management of Phosphates Business assesses the recoverable amount of its operating assets principally with reference to fair value less costs of disposal, assessed using discounted cash flow models. There is judgement in determining the assumptions that are considered to be reasonable and consistent with those that would be applied by market participants. In addition, in making assessments for impairment, management necessarily applies its judgement in allocating assets, including goodwill, that do not generate independent cash flows to appropriate cash generating units (CGUs). Subsequent changes to the CGU allocation, to the timing of cash flows or to the assumptions used to determine the cash flows could impact the carrying value of the respective assets.

Taxation

The Phosphates Business's tax affairs are governed by complex domestic tax legislations and the interpretation of such by tax authorities and courts. Given the many uncertainties that could arise from these factors, judgement is often required in determining the tax that is due. Where management is aware of potential uncertainties that are more likely than not to result in a liability for additional tax, a provision is made for management's best estimate of the liability, determined with reference to similar transactions and, in some cases, reports from independent experts.

In addition, the recognition and measurement of deferred tax requires the application of judgement in assessing the amount, timing and probability of future taxable profits and repatriation of retained earnings. These factors affect the determination of the appropriate rates of tax to apply and the recoverability of deferred tax assets. These judgements are influenced, inter alia, by factors such as estimates of future production, commodity lines, operating costs, future capital expenditure, and dividend policies.

Contingent liabilities

On an ongoing basis the Phosphates Business is a party to various legal disputes, the outcomes of which cannot be assessed with a high degree of certainty.

A provision is recognised where, based on the management of Phosphates Business's legal views and advice, it is considered probable that an outflow of resources will be required to settle a present obligation that can be measured reliably. Disclosure of contingent liabilities is made in note 22 unless the possibility of a loss arising is considered remote. Management applies its judgement in determining whether or not a provision or contingent liability should be recorded.

Key sources of estimation uncertainty

Ore Reserves

When determining Ore Reserves, which may be used to calculate useful economic lives of assets and depreciation on the Phosphates Business's mining properties, assumptions that were valid at the time of estimation may change when new information becomes available. In addition, the calculation of the unit of production rate of amortisation could be impacted to the extent that actual production in the future is different from current forecast production.

Any changes in estimate could affect prospective depreciation rates and asset carrying values and, as a result, the determination of Ore Reserves is considered a key source of estimation uncertainty.

Factors which could impact useful economic lives of assets and Ore Reserve estimates include:

- the grade of Ore Reserves varying significantly from time to time
- differences between actual commodity prices and commodity price assumptions used in Ore Reserve estimation
- renewal of mining licences
- unforeseen operational issues at mine sites
- adverse changes in capital, operating, mining, processing and reclamation costs, discount rates and foreign exchange rates used to determine Ore Reserves.

Assessment of fair value

The assessment of fair value is principally used in accounting for impairment testing and in the valuation of biological assets and certain financial assets and liabilities.

The fair value of an asset or liability is the price that would be received to sell the asset, or paid to transfer a liability in an orderly transaction between market participants. Fair value is determined based on observable market data as at the relevant period end, discounted cash flow models (and other valuation techniques) or where relevant signed sales agreements and assumptions considered to be reasonable and consistent with those that would be applied by a market participant. Where discounted cash flow models based on management's assumptions are used, the resulting fair value measurements are considered to be at level 3 in the fair value hierarchy, as defined in IFRS 13 Fair Value Measurement, as they depend to a significant extent on unobservable valuation inputs.

The determination of assumptions used in assessing the fair value of identifiable assets and liabilities is subjective and the use of different valuation assumptions could have a significant impact on financial results.

Cash flow projections

Expected future cash flows used in discounted cash flow models are inherently uncertain and could materially change over time. They are significantly affected by a number of factors including Ore Reserves and Mineral Resources, together with economic factors such as commodity prices, exchange rates, discount rates and estimates of production costs and future capital expenditure.

Cash flow projections are based on financial budgets and Life of Mine Plans or, for non-mine assets, an equivalent appropriate long term forecast, and incorporating key assumptions as detailed below:

- **Ore Reserves and Mineral Resources**

  Ore Reserves and, where considered appropriate, Mineral Resources are incorporated in projected cash flows, based on Ore Reserves and Mineral Resource statements and exploration and evaluation work undertaken by appropriately qualified persons. Mineral Resources are included where management has a high degree of confidence in their economic extraction, despite additional evaluation still being required prior to meeting the required confidence to convert to Ore Reserves.

- **Commodity and product prices**

  Commodity and product prices are based on latest internal forecasts, benchmarked with external sources of information, to ensure they are within the range of available analyst forecasts. Where existing sales contracts are in place, the effects of such contracts are taken into account in determining future cash flows.

- **Foreign exchange rates**

  Foreign exchange rates are based on latest internal forecasts, benchmarked with external sources of information for relevant countries of operation. Foreign exchange rates are kept constant (on a real basis) from 2020 onwards.

- **Discount rates**

  Cash flow projections used in fair value less costs of disposal impairment models are discounted based on a real post-tax discount rate, assessed annually, of 6.5% (2013, 2014 and 2015: 6.5%). Adjustments to the rate are made for any risks that are not reflected in the underlying cash flows.

- **Operating costs, capital expenditure and other operating factors**

  Operating costs and capital expenditure are based on financial budgets covering a five year period. Cash flow projections beyond five years are based on the Life of Mine Plan and internal management forecasts. Cost assumptions incorporate management experience and expectations, as well as the nature and location of the operation and the risks associated therewith.

  Underlying input cost assumptions are consistent with related output price assumptions. Other operating factors, such as the timelines of granting licences and permits are based on management's best estimate of the outcome of uncertain future events at the end of reporting period.

  Where an asset has potential for future development through capital investment, to which a market participant would attribute value, and the costs and economic benefits can be estimated reliably, this development is included in the cash flows (with appropriate risk adjustments).

Restoration, rehabilitation and environmental costs

Costs for restoration of site damage, rehabilitation and environmental costs are estimated using either the work of external consultants or internal experts. The amount recognised as a provision represents management's best estimate of the consideration required to complete the restoration and rehabilitation activity, the application of the relevant regulatory framework and timing of expenditure. These estimates are inherently uncertain and could materially change over time. To the extent that the actual future costs differ from these estimates, adjustments will be recorded and the amount provided could be impacted.

Retirement benefits

The expected costs of providing pensions and post-employment benefits under defined benefit arrangements relating to employee service during the period are determined based on financial and actuarial assumptions.

Assumptions in respect of the expected costs are set after consultation with qualified actuaries. While management believes the assumptions used are appropriate, a change in the assumptions used would affect the amounts recognised in the financial statements.

3. CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The accounting policies applied are consistent with those adopted and disclosed in the Phosphates Business financial statements for the period ended 30 June 2016, except for changes arising from the adoption of the following new accounting pronouncements which became effective in the current reporting period:

- *Amendments to IAS 19 Employee Benefits: Defined Benefit Plans – Employee Contributions.*
- *Annual Improvements to IFRSs 2010–2012 cycle.*
- *Annual Improvements to IFRSs 2011–2013 cycle.*

The adoption of these new accounting pronouncements has not had a significant impact on the accounting policies, methods of computation or presentation applied by the Phosphates Business. The Phosphates Business has not early adopted any other amendment, standard or interpretation that has been issued but is not yet effective. It is expected that where applicable, these standards and amendments will be adopted on each respective effective date.

New IFRS accounting standards, amendments and interpretations not yet adopted

The following new accounting standards in issue but not yet effective could have an impact on the Phosphates Business:

IFRS 15 Revenue from Contracts with Customers

IFRS 15 will replace IAS 18 Revenue and IAS 11 Construction Contracts and establishes a unified framework for determining the timing, measurement and recognition of revenue. The principle of the new standard is to recognise revenue as performance obligations are met rather than based on the transfer of risks and rewards.

The effective date of the standard has been deferred to 1 January 2018 to allow companies more time to deal with transitional issues of application.

The management of Phosphates Business is currently reviewing the potential impact of adopting IFRS 15 however as its revenue is predominantly derived from arrangements in which the transfer of risks and rewards coincides with the fulfilment of performance obligations, the timing and amount of revenue recognised is unlikely to be materially affected for the majority of sales.

IFRS 15 also includes disclosure requirements including qualitative and quantitative information about contracts with customers to help users of the financial statements understand the nature, amount, timing and uncertainty of revenue.

IFRS 9 Financial Instruments

IFRS 9 will replace IAS 39 Financial Instruments: Recognition and Measurement addressing the following key areas:

- Classification and measurement establishes a single, principles-based approach for classification of financial assets, which is driven by cash flow characteristics and the business model in which an asset is held. This is not expected to have a significant presentational impact on the Phosphates Business's financial statements.

- Impairment introduces a new 'expected credit loss' impairment model, requiring expected credit losses to be recognised from when financial instruments are first recognised. The transition to this model is expected to result in changes in the systems and a computational method used by the management of Phosphates Business's to assess receivables and similar assets for impairment. However, given the profile of the Phosphates Business's counterparty exposures, this is not expected to have a material impact on the amounts recorded in the financial statements.

- Hedge Accounting aligns the accounting treatment with risk management practices of an entity, including making a broader range of exposures eligible for hedge accounting and introducing a more principles-based approach to assessing hedge effectiveness.

IFRS 9 is effective for annual reporting periods beginning on or after 1 January 2018.

The Phosphates Business's implementation activities to date have principally focused on gaining a high level understanding of the likely effects of IFRS 9 given the nature of financial instruments held by the Phosphates Business.

IFRS 16 Leases

IFRS 16 replaces IAS 17 Leases and IFRIC 4 Determining whether an Arrangement contains a Lease. The new standard provides a single lessee accounting model for the recognition, measurement, presentation and disclosure of leases. IFRS 16 applies to all leases including subleases and requires lessees to recognise assets and liabilities for all leases, unless the lease term is 12 months or less, or the underlying asset has a low value. Lessors continue to classify leases as operating or finance.

IFRS 16 was issued in January 2016 and applies to annual reporting periods beginning on or after 1 January 2019. The management of Phosphates Business will evaluate the potential impact of IFRS 16 on the financial statements and performance measures.

Other new amendments and interpretations

The following new amendments and interpretations in issue but not yet effective are not expected to have a significant impact on the Phosphates Business:

- Amendments to IAS 1 Presentation of Financial Statements: Disclosure Initiative provides guidance on the use of judgement in presenting financial statement information, including: the application of materiality; order of notes; use of subtotals; accounting policy referencing and disaggregation of financial and non-financial information.

- Amendments to IAS 27 Equity Method in Separate Financial Statements will allow entities to use the equity method in their separate financial statements to measure investments in subsidiaries, joint ventures and associates.

- Amendments to IAS 16 Property, Plant and Equipment and IAS 38 Clarification of Acceptable Methods of Depreciation clarify that a revenue based method of depreciation or amortisation is generally not appropriate.

- Amendments to IFRS 10 Consolidated Financial Statements and IAS 28 Investments in Associates and Joint Ventures: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture remove an inconsistency between the two standards on the accounting for gains and losses arising on sale or contribution of assets by an investor to its associate or joint venture. Following the amendment, such gains and losses may only be recognised to the extent of the unrelated investor's interest, except where the transaction involves assets that constitute a business.

- Amendments to IFRS 11 Accounting for Acquisitions of Interests in Joint Operations and IAS 28 Investments in Associates and Joint Ventures clarify the accounting for the acquisition of an interest in a joint operation where the activities of the operation constitute a business.

Other issued standards and amendments that are not yet effective are not expected to have an impact on the financial statements.

4. OPERATING PROFIT/(LOSS)

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Revenue	215,543	217,929	431,117	487,035	543,793
Cost of sales	(150,852)	(156,798)	(294,739)	(376,163)	(414,671)
Gross profit	64,691	61,131	136,378	110,872	129,122
Selling and distribution costs	(1,166)	(1,222)	(2,440)	(3,211)	(695)
Administrative expenses	(9,761)	(15,937)	(27,453)	(41,399)	(35,190)
Other expenses	(6,597)	(7,621)	(16,407)	(5,231)	(13,415)
Operating (loss)/profit	47,167	36,351	90,078	61,031	79,822

US$ thousands					
Operating profit is stated after (charging)/crediting:					
Depreciation of property, plant and equipment assets *(see note 8)*	(8,546)	(6,736)	(14,180)	(12,852)	(10,941)
Amortisation of intangible assets *(see note 7)*	(196)	(88)	(193)	(295)	(323)
Rentals under operating leases	(30)	(149)	(299)	(1,362)	(697)
Research and development expenditure	(180)	(325)	(1,158)	(3,979)	(3,485)
Evaluation expenditure[(1)]	(573)	(246)	(1,175)	(8,435)	(9,640)
Employee costs *(see note 19)*	(36,166)	(40,316)	(66,857)	(84,228)	(88,832)

(1) Evaluation of Phosphates mineral resources relating to projects in the conceptual or pre-feasibility stage or further evaluation of mineral resources at existing operations

5. NET FINANCE COST

See note 26b for the Phosphates Business's accounting policy on borrowing costs.

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Investment income					
Interest income from cash and cash equivalents	5,684	4,288	10,361	7,672	7,417
Total investment income	5,684	4,288	10,361	7,672	7,417
Interest expense					
Interest and other finance income/ (expense)	9,819	(10,604)	(26,915)	(13,192)	(12,765)
Total interest expense	9,819	(10,604)	(26,915)	(13,192)	(12,765)
Net finance cost	15,503	(6,316)	(16,554)	(5,520)	(5,348)

6. INCOME TAX EXPENSE

See note 26c for the Phosphates Business's accounting policy on tax.

a) Analysis of charge for the year

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Payable in respect of the current year	(21,675)	(11,462)	(25,514)	(16,355)	(17,495)
Current tax	(21,675)	(11,462)	(25,514)	(16,355)	(17,495)
Deferred tax	(552)	2,064	3,812	1,810	(4,828)
Income tax expense	(22,227)	(9,398)	(21,702)	(14,545)	(22,323)

b) Factors affecting tax charge for the year

The effective tax rate for the period of 35% (2015: 30%; 2014: 26%; 2013: 30%) is in line with the applicable statutory rate of corporation tax in Brazil of 34% (all periods: 34%). The reconciling items are:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Profit/(loss) before tax	62,670	30,035	73,524	55,511	74,474
Tax on profit/(loss) calculated at corporation tax rate of 34% (2013 & 2014: 34%)	(21,308)	(10,212)	(24,998)	(18,874)	(25,321)
Tax effects of:					
Interest on own capital	–	–	4,077	4,188	2,897
Fiscal incentives	108	242	353	–	–
Bonus share scheme expenses	–	(7)	(657)	–	–
Donation incentives	–	–	319	–	–
Judicial processes relating to prior periods (IRPJ/CSLL)	–	–	(1,127)	–	–
Other permanent differences	(1,027)	579	331	141	101
Income tax expense/(income)	(22,227)	(9,398)	(21,702)	(14,545)	(22,323)

c) Tax amounts included in other comprehensive income

An analysis of tax by individual item presented in the Statement of comprehensive income is presented below:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Tax (charge)/credit on items recognised directly in equity that will not be reclassified to the income statement					
Remeasurement of net retirement benefit obligation	(1,245)	–	528	887	(2,354)

d) Income tax paid

Table below shows the movements in provisions and payments for income tax only. In the statements of financial position these are included within tax liabilities which includes other tax balances

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Balance at start of period	2,510	2,789	2,789	(6,102)	1,032
Income tax – current tax charge	21,675	11,462	25,514	16,355	17,495
Other	–	–	–	(59)	–
Income tax paid	(16,457)	(8,348)	(24,755)	(7,034)	(23,266)
Foreign exchange	1,387	(546)	(1,038)	(371)	(1,363)
Balance at end of year	9,115	5,357	2,510	2,789	(6,102)

7. INTANGIBLE ASSETS

See note 26d for the Phosphates Business's accounting policy on intangible assets.

	30 June 2016			
US$ thousand	Mining Rights	Software Licences	Other	Total
Cost				
Opening balance	754	2,210	2	2,966
Additions	–	–	–	–
Disposal of assets	–	–	–	–
Reclassifications	–	–	–	–
Foreign exchange (CTA)	177	518	–	695
At 30 June	931	2,728	2	3,661
Amortisation	(339)	(883)	–	(1,222)
Opening balance	–	–	–	–
CY charges	(20)	(176)	–	(196)
Disposal of assets	–	–	–	–
Reclassifications	–	–	–	–
Foreign exchange (CTA)	(83)	(233)	–	(316)
At 30 June	(442)	(1,292)	–	(1,734)
Net book value ending at 30 June	489	1,436	2	1,927

	31 December 2015			
US$ thousand	**Mining Rights**	**Software Licences**	**Other**	**Total**
Cost				
Opening balance	1,124	2,333	3	3,460
Additions	–	–	–	–
Disposal of assets	–	(606)	–	(606)
Reclassifications	–	1,372	–	1,372
Foreign exchange (CTA)	(370)	(889)	(1)	(1,260)
At 31 December	754	2,210	2	2,966
Amortisation				
Opening balance	(450)	(1,891)	–	(2,341)
CY charges	(45)	(148)	–	(193)
Disposal of assets	–	606	–	606
Reclassifrcations	–	–	–	–
Foreign exchange	155	550	–	705
At 31 December	(340)	(883)	–	(1,223)
Net book value ending at 31 December	414	1,327	2	1,743

	30 December 2014			
US$ thousand	**Mining Rights**	**Software Licences**	**Other**	**Total**
Cost				
Opening balance	1,266	2,515	3	3,784
Additions	–	–	–	–
Disposal of assets	–	–	–	–
Reclassifications	–	112	–	112
Foreign exchange (CTA)	(142)	(294)	–	(436)
At 31 December	1,124	2,333	3	3,460
Amortisation				
Opening balance	(443)	(1,898)	–	(2,341)
CY charges	(63)	(232)	–	(295)
Disposal of assets	–	–	–	–
Reclassifications	–	–	–	–
Foreign exchange (CTA)	57	238	–	295
At 31 December	(449)	(1,892)	–	(2,341)
Net book value ending at 31 December	675	441	3	1,119

US$ thousand	Mining Rights	30 December 2013 Software Licences	Other	Total
Cost				
Opening balance	1,458	2,711	3	4,172
Additions	–	–	–	–
Disposal of assets	–	–	–	–
Reclassifications	–	176	–	176
Foreign exchange (CTA)	(192)	(372)	–	(564)
At 31 December	1,266	2,515	3	3,784
Amortisation				
Opening balance	(437)	(1,917)	–	(2,354)
CY charges	(69)	(254)	–	(323)
Disposal of assets	–	–	–	–
Reclassifications	–	–	–	–
Foreign exchange (CTA)	64	273	–	337
At 31 December	(442)	(1,898)	–	(2,340)
Net book value ending at 31 December	824	617	3	1,444

US$ thousand	At 30 June 2016	2015	At 31 December 2014	2013
Cost	3,661	2,966	3,460	3,784
Accumulated amortisation	(1,734)	(1,223)	(2,341)	(2,340)
	1,927	1,743	1,119	1,444

Software and licenses useful life estimated between 3 and 5 years (associated maintenance costs are expensed as incurred). Mining rights are capitalised and amortised throughout their useful life until 2050. There are no impairment indicators which require a more detailed review.

8. PROPERTY, PLANT & EQUIPMENT

See note 26e for the Phosphates Business's accounting policies on property, plant and equipment.

			30 June 2016			
US$ thousand	Stripping Cost	Land & buildings	Plant & equipment	Pro Forma Land Acquisition	Capital work in progress	Total
Cost						
Opening balance	1,831	52,069	279,126	462	1,838	335,326
Additions	660	–	–	–	12,406	13,066
Disposel of assets	–	–	(113)	–	–	(113)
Reclassifications	–	462	133	(462)	(133)	–
Foreign exchange (CTA)	531	12,080	65,796	–	1,772	80,179
At 30 June	3,022	64,611	344,942	–	15,883	428,458
Depreciation						
Opening balance	(79)	(17,195)	(179,782)	–	–	(197,056)
CY charges	(28)	(538)	(7,980)	–	–	(8,546)
Disposal of assets	–	–	113	–	–	113
Reclassifications	–	–	–	–	–	–
Foreign exchange (CTA)	(23)	(4,122)	(43,437)	–	–	(47,582)
At 30 June	(130)	(21,855)	(231,086)	–	–	(253,071)
Net book value ending at 30 June	2,892	42,756	113,856	–	15,883	175,387

US$ thousand			30 June 2016			
Cost	3,022	64,611	344,942	–	15,883	428,458
Accumulated depreciation	(130)	(21,855)	(231,086)	–	–	(253,071)
	2,892	42,756	113,856	–	15,883	175,387

	31 December 2015					
US$ thousand	**Stripping Cost**	**Land & buildings**	**Plant & equipment**	**Pro Forma Land Acquisition**	**Capital work in progress**	**Total**
Cost						
Opening balance	542	67,440	406,429	689	35,829	510,929
Additions	1,744	2,747	4,064	–	25,324	33,879
Disposal of assets	–	(762)	(40,094)	–	–	(40,856)
Reclassifications	–	5,763	44,211	–	(51,681)	(1,707)
Foreign exchange (CTA)	(454)	(23,120)	(135,484)	(227)	(7,635)	(166,920)
At 31 December	1,832	52,068	279,126	462	1,837	335,325
Depreciation						
Opening balance	–	(25,125)	(302,177)	–	–	(327,302)
CY charges	(94)	(922)	(13,164)	–	–	(14,180)
Disposal of assets	–	762	40,068	–	–	40,830
Reclassifications	–	(253)	253	–	–	–
Foreign exchange (CTA)	15	8,342	95,239	–	–	103,596
At 31 December	(79)	(17,196)	(179,781)	–	–	(197,056)
Net book value ending at 30 June	1,753	34,872	99,345	462	1,837	138,269
US$ thousand						
Cost	1,832	52,068	279,126	462	1,837	335,325
Accumulated depreciation	(79)	(17,196)	(179,781)	–	–	(197,056)
	1,753	34,872	99,345	462	1,837	138,269

	31 December 2014					
US$ thousand	**Stripping Cost**	**Land & buildings**	**Plant & equipment**	**Pro Forma Land Acquisition**	**Capital work in progress**	**Total**
Cost						
Opening balance	–	74,360	412,068	776	46,961	534,165
Additions	612	400	3,364	–	37,494	41,870
Disposal of assets	–	–	(41)	–	–	(41)
Reclassifications	–	1,063	42,492	–	(44,124)	(569)
Foreign exchange (CTA)	(70)	(8,382)	(51,457)	(87)	(4,501)	(64,497)
At 31 December	542	67,441	406,426	689	35,830	510,928
Cost						
Opening balance	–	(27,274)	(328,493)	–	–	(355,767)
CY charges	–	(1,017)	(11,835)	–	–	(12,852)
Disposal of assets	–	–	37	–	–	37
Reclassifications	–	–	–	–	–	–
Foreign exchange (CTA)	–	3,167	38,114	–	–	41,281
At 31 December	–	(25,124)	(302,177)	–	–	(327,301)
Net book value ending at 30 June	542	42,317	104,249	689	35,830	183,627
US$ thousand						
Cost	542	67,441	406,426	689	35,830	510,928
Accumulated depreciation	–	(25,124)	(302,177)	–	–	(327,301)
	542	42,317	104,249	689	35,830	183,627

US$ thousand	Stripping Cost	Land & buildings	Plant & equipment	Pro Forma Land Acquisition	Capital work in progress	Total
			31 December 2013			
Cost						
Opening balance	–	83,427	458,598	894	38,959	581,878
Additions	–	–	–	–	32,302	32,302
Disposal of assets	–	–	(75)	–	–	(75)
Reclassifications	–	2,103	15,256	–	(17,948)	(589)
Foreign exchange (CTA)	–	(11,170)	(61,711)	(118)	(6,353)	(79,352)
At 31 December	–	74,360	412,068	776	46,960	534,164
Cost						
Opening Balance	–	(30,337)	(367,961)	–	–	(398,298)
CY Charges	–	(1,021)	(9,920)	–	–	(10,941)
Disposal of assets	–	–	71	–	–	71
Reclassifications	–	–	–	–	–	–
Foreign exchange (CTA)	–	4,084	49,317	–	–	53,401
At 31 December	–	(27,274)	(328,493)	–	–	(355,767)
Net book value ending at 30 June	–	47,086	83,575	776	46,960	178,397
US$ thousand			**31 December 2013**			
Cost	–	74,360	412,068	776	46,960	534,164
Accumulated depreciation	–	(27,274)	(328,493)	–	–	(355,767)
	–	47,086	83,575	776	46,960	178,397

There were no assets held under finance leases. Land and buildings are freehold properties

Land is not depreciated. Other assets are depreciated using the linear method throughout their useful lives, as follows:

Buildings:	25 years
Plant & Equipment:	13 years
Others:	10 years

9. BIOLOGICAL ASSETS

See note 26h for the Phosphates Business's accounting policy on biological assets.

	6 months ended 30 June	12 months ended 31 December		
US$ thousand	**2016**	**2015**	**2014**	**2013**
At 1 January	4,139	9,973	14,157	16,192
Reclassifications	–	334	456	413
Fair value adjustment	(2,527)	(3,178)	(3,079)	397
Utilisation	(55)	(184)	(309)	(703)
Foreign exchange (CTA)	578	(2,806)	(1,252)	(2,142)
At 30 June/31 December	2,135	4,139	9,973	14,157

Biological assets relate to eucalyptus plantations which are cultivated and harvested for use as a fuel source in the Phosphates Business's production process. These assets are recorded at fair value based on certain inputs and assumptions, including the market price of wood and typical forest productivity and this value is discounted at a rate of 6% at 30th June 2016 (2015: 6%, 2014: 9%, and 2013: 8%) over a 10 year period, being the average productive cycle.

10. FINANCIAL ASSET INVESTMENTS

See note 26j for the Phosphates Business's accounting policy on financial asset investments. All of the Phosphates Business's financial asset investments are classified as Loans & Receivables and are Non-Current.

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Opening balance	24,821	32,195	35,780	39,335
Additions	1,422	5,754	889	1,898
Foreign exchange (CTA)	5,872	(11,212)	(4,060)	(5,333)
Disposals/Settlements	(1,013)	(1,916)	(414)	(120)
Closing balance	31,102	24,821	32,195	35,780
Made up of:				
Judicial deposits	10,075	7,795	6,805	7,190
lndemnity receivable	21,027	17,026	25,390	28,590
	31,102	24,821	32,195	35,780

Judicial deposits

The Phosphates Business is subject to certain legal claims in relation to fiscal, labour and other civil matters. In certain instances, in the normal course of the claim, the Phosphates Business is required to put funds on deposit, known as a "judicial deposit" (to demonstrate the Phosphates Business's ability to meet the claim, should it be required to make payment). These deposits are a form of restricted cash earning interest at the Brazilian benchmark interest rate (Selic) which will be either (a) returned to the Phosphates Business if it is successful in its defence of the claim or (b) used to compensate the claimant.

Indemnity receivable

The Phosphates Business holds a receivable due from the State of São Paulo at a value of U$17 million related to land expropriated in 1985, located near the Cubatão plant, and incorporated into the area of a state park. The asset reflects the remaining balance to be received from the State of São Paulo (based on a legal ruling received in December 2007) and corresponds to the eight remaining instalments (of an original ten) determined by the ruling. After paying the first two instalments, the State of São Paulo decided to challenge both the area expropriated as well as the value awarded.

In April 2014, the court handed down an unexpected sentence, whereby it did not address the State's questioning of the area and associated value, but instead returned to the original ruling and determined that the Phosphates Business was not entitled to any compensation on the grounds that it could not develop any kind of economic activity at the site. The Phosphates Business filed an appeal to this ruling, given the contradictions and conflict between the decisions of the Judges and no further developments have occurred to date.

If there is no reversal of this latest decision, the Phosphates Business will not only lose the right to the receivable currently recognised, but will also need to repay the previously received amounts (approximate total of U$12.6 million). The legal advisors of the Phosphates Business are of the opinion that the chance of an unfavourable decision is possible.

11. INVENTORIES

See note 26n for the Phosphates Business's accounting policy on inventories.

	6 months ended 30 June	12 months ended 31 December		
US$ million	**2016**	**2015**	**2014**	**2013**
Raw materials and consumables	25,663	28,773	39,756	30,807
Finished products	53,352	48,879	47,386	42,197
	79,015	77,652	87,142	73,004

The cost of inventories recognised as an expense and included in cost of sales in the 6 month period ended 30 June 2016 amounted to $150.9 million (6 months ended 30 June 2015: $156.8 million; 12 months ended 31December 2015: $294.7 million; 2014: $376.1 million; 2013: $414.7 million).

Inventories held at net realisable value at 30 June 2016 amounted to $79 million (31 December 2015: $77.7 million; 2014: $87.1 million; 2013: $73 million).

Inventories obsolete at realisable value at 30 June 2016 amounted to $2.8 million (31 December 2015: $2.2 million; 2014: $1.8 million; 2013: $1.4 million). Movements in the provision for obsolete inventory has been reflected in the income statement in the relevant period and years (six months ended 30th June 2016: $66 thousand, 2015: $1.2 million, and 2014: 621 thousand and 2013: $1.5 million).

12. TRADE AND OTHER RECEIVABLES

Trade receivables are principally short term in nature and are measured at their nominal value, net of appropriate provision for estimated irrecoverable amounts. Provision is raised based on assessment of debtor ageing, past experience or known customer circumstances.

US$ thousands	Due within 1 year	1 to 2 years	2 to 3 years	3 years More than	Total
30 June 2016					
Trade receivables	60,398	–	–	–	60,398
Recoverable taxes	4,440	2,398	1,036	3,597	11,471
Prepayments and accrued income	4,123	199	398	897	5,617
	68,961	2,597	1,434	4,494	77,486
31 December 2015					
Trade receivables	28,635	–	–	–	28,635
Recoverable taxes	4,637	1,530	1,352	4,123	11,642
Prepayments and accrued income	2,691	336	336	700	4,063
	35,963	1,866	1,688	4,823	44,340
31 December 2014					
Trade receivables	50,155	–	–	–	50,155
Recoverable taxes	7,867	2,251	1,287	5,949	17,354
Prepayments and accrued income	2,213	382	382	1,147	4,124
	60,235	2,633	1,669	7,096	71,633
31 December 2013					
Trade receivables	43,260	–	–	–	43,260
Recoverable taxes	12,356	2,846	1,604	5,059	21,865
Prepayments and accrued income	4,738	1,376	1,377	–	7,491
	60,354	4,222	2,981	5,059	72,616

The historical level of customer default is minimal and as a result the credit quality of year end trade receivables is considered to be high. As at 30 June 2016 $7.5 million of the trade receivables balance (year end 2015: $5.8 million; 2014: $5.6 million; 2013: $7.3 million) was past due, stated after an associated impairment provision of $4.6 million (year end 2015: $3.3 million; 2014: $2.8 million; 2013: $3.8 million). The overdue ageing profile is typical of the Phosphates Business's industry. Given this, the use of payment security instruments (including letters of credit from acceptable financial institutions) and the nature of related counterparties, these amounts are considered recoverable.

The movements associated impairment provision as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Opening balance	(3,303)	(2,754)	(3,794)	(6,218)
Provision	(2,028)	(2,913)	(1,124)	(220)
Reverse	1,584	1,184	1,818	2,869
Foreign exchange (CTA)	(843)	1,180	346	(225)
Closing balance	(4,590)	(3,303)	(2,754)	(3,794)

Recoverable taxes are comprised as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Social integration programme – PIS	388	527	176	341
Social security taxes – COFINS	1,719	2,285	638	1,717
ICMS, PIS & COFINS on tangible assets	8,940	8,317	11,206	19,562
Other recoverable taxes	424	513	5,333	244
	11,471	11,642	17,353	21,864
Made up of:				
Current	4,440	4,637	7,867	12,355
Non-current	7,031	7,005	9,486	9,509
	11,471	11,642	17,353	21,864

13. CASH & CASH EQUIVALENTS

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Cash at bank	1,646	1,226	2,886	9,976
Deposits	94,510	40,726	29,081	34,713
Cash Balance in June/December	96,156	41,952	31,967	44,689
(-) Pro form a land acquisition[(1)]	–	(462)	(689)	(776)
Cash Balance in June/December	96,156	41,490	31,278	43,913

Cash deposits are represented by investments with redemption less than 90 days and are recorded at cost plus income earned to the date of the financial statements. Such deposits have an insignificant risk of change in their value.

14. TRADE AND OTHER PAYABLES

Trade payables are not interest bearing and are measured at their nominal value. All amounts shown below are payable within one year.

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Trade payables[(1)]	18,008	14,091	17,220	20,725
Employee related payables	13,680	10,362	15,979	20,062
Other payables	25,216	12,252	17,728	16,353
	56,904	36,705	50,927	57,140

(1) Includes sales commissions payable

15. FINANCIAL INSTRUMENTS

See note 26m for the Phosphates Business's accounting policy on financial instruments.

Carrying amounts of financial assets and liabilities are as shown below. Where the carrying amount does not approximate its fair value, this is disclosed. For financial assets and liabilities traded on an active market, such as listed investments, fair value is determined by reference to market value. For non-traded financial assets and liabilities, fair value is calculated using discounted cash flows, considered to be consistent with those that would be used by a market participant (based on observable market data where available) unless carrying value is considered to approximate fair value.

US$ thousands	**Loans and receivables**	**30 June 2016 Financial liabilities at amortised cost**	**Total**
Financial assets			
Trade and other receivables[1]	60,398	–	60,398
Cash and cash equivalents	96,156	–	96,156
Financial asset investments	31,102	–	31,102
Related party receivables	4,800	–	4,800
Financial liabilities			
Trade and other payables[1]	–	56,365	(56,365)
Loans from related party and other related party payables	–	57,500	(57,500)
Net financial assets	192,456	113,865	78,591

US$ thousands	**Loans and receivables**	**31 December 2015 Financial liabilities at amortised cost**	**Total**
Financial assets			
Trade and other receivables[1]	28,635	–	28,635
Cash and cash equivalents	41,952	–	41,952
Financial asset investments	24,821	–	24,821
Related party receivables	3,699	–	3,699
Financial liabilities			
Trade and other payables[1]	–	36,211	(36,211)
Loans from related party and other related party payables	–	57,500	(57,500)
Net financial assets/(liabilities)	99,107	93,711	5,396

US$ thousands	Loans and receivables	31 December 2014 Financial liabilities at amortised cost	Total
Financial assets			
Trade and other receivables[1]	50,155	–	50,155
Cash and cash equivalents	31,967	–	31,967
Financial asset investments	32,195	–	32,195
Related party receivables	1,409	–	1,409
Financial liabilities			
Trade and other payables[1]	–	49,958	(49,958)
Loans from related party and other related party payables	–	77,471	(77,471)
Net financial assets	115,726	127,429	(11,703)

(1) Trade and other receivables exclude prepayments, accrued income and tax receivables. Trade and other payables exclude tax and social security.

US$ thousands	Loans and receivables	31 December 2013 Financial liabilities at amortised cost	Total
Financial assets			
Trade and other receivables[1]	43,260	–	43,260
Cash and cash equivalents	44,689	–	44,689
Financial asset investments	35,780	–	35,780
Related party receivables	1,055	–	1,055
Financial liabilities			
Trade and other payables[1]	–	56,338	(56,338)
Loans from related party and other related party payables	–	67,499	(67,499)
Net financial assets	124,784	123,837	947

(1) Trade and other receivables exclude prepayments, accrued income and tax receivables. Trade and other payables exclude tax and social security

16. PROVISIONS FOR LIABILITIES AND CHARGES

See note 26o for the Phosphates Business's accounting policy on environmental restoration and decommissioning obligations and provisions

US$ thousands	**Legal claims**	**Legal expenses**	**Environmental restoration & decommissioning**	**Total**
At 1 January 2013	16,742	22,157	4,437	43,336
Charged to the income statement	1,609	(8,937)	–	(7,328)
Unwinding of discount	–	–	253	253
Amounts applied	–	–	–	(603)
Foreign exchange (CTA)	(2,291)	(2,160)	(605)	(5,056)
Accrual legal fees	–	–	–	–
At 1 January 2014	15,457	11,060	4,085	30,602
Charged to the income statement	2,631	(5,363)	–	(2,732)
Unwinding of discount	–	–	1,127	1,127
Amounts applied	(433)	–	–	(433)
Foreign exchange (CTA)	(2,011)	(628)	(587)	(3,226)
Accrual legal fees	266	–	–	266
At 1 January 2015	15,910	5,069	4,625	25,604
Charged to the income statement	6,199	1,207	–	7,406
Unwinding of discount	–	–	8,750	8,750
Amounts applied	–	–	–	–
Foreign exchange (CTA)	(6,196)	(1,861)	(2,907)	(10,964)
Accrual legal fees	(151)	–	–	(151)
At 1 January 2016	15,762	4,415	10,468	30,645
Charged to the income statement	5,481	(3,068)	–	2,413
Unwinding of discount	–	–	331	331
Amounts applied	(3,530)	–	–	(3,530)
Foreign exchange (CTA)	4,001	568	2,510	7,079
Accrual legal fees	–	–	–	–
At 30 June 2016	21,714	1,915	13,309	36,938

Legal Claims

The Phosphates Business is subject to a series of legal claims relating to tax, labour and other civil matters. While the Phosphates Business continues to actively defend their position, where the chance of loss is considered probable, the potential loss value is estimated and a provision created. This assessment is made together with internal and external legal counsel.

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Tax related claims				
IRPJ[(1)]	6,079	4,778	3,320	3,739
Other taxes[(2)]	6,732	3,579	3,641	4,100
Labour claims	3,551	1,691	1,741	1,596
Civil claims	5,352	5,714	7,208	6,022
	21,714	15,762	15,910	15,457

(1) Provision for the deductibility of CSLL in the calculation of taxable income, for all calculations made since 1999, the values of which are supported by judicial deposits, with the exception of the 1998 calendar year.

(2) Dispute related to deduction of interest paid to shareholders in the calculation basis of IRPJ and CSLL in 1997; Approval of the application for compensation (PER/DCOMP) by the Brazilian Federal Government of taxes related to a surplus payment of withholding tax on 2005.

In certain instances the Phosphates Business is required to put funds on deposit (known as a judicial deposit) as a part of the legal process, refer to note 10 for further information.

Where the Phosphates Business believes that the risk of loss is probable a provision is raised, however if the chance of loss is considered possible no provision in created. In terms of claims where the estimated chance of loss is possible, the value of such claims at 30 June 2016 is $51.3 million related to labour, civil and tax (31 December 2015: $42.5 million – labour, civil and tax; 2014: $42.8 million – labour, civil and tax; 2013: $6.1 million labour and civil only).

Environmental restoration & decommissioning

The Phosphates Business has an obligation to undertake restoration, rehabilitation and environmental work when environmental disturbance is caused by the development or ongoing production of a mining property. A provision is recognised for the present value of such costs, based on management's best estimate of the legal and constructive obligations incurred. These estimates reflect industry best practice and currently applicable legislation. Significant changes in legislation could result in changes in provisions recognised. It is anticipated that these costs will be incurred over a period in excess of 20 years.

Provision is also made for the present value of costs relating to the decommissioning of plant or other site restoration work. It is anticipated that these costs will be incurred over a period in excess of 20 years.

17. DEFERRED TAX

See note 26c for the Phosphates Business's accounting policy on tax.

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Opening balance	(1,193)	(6,632)	(7,488)	4
Charged/(credited) to the income statement	(552)	3,812	1,810	(4,828)
(Credited)/charged to the statement of comprehensive income	(1,245)	528	887	(2,354)
Foreign Exchange (CTA)	(319)	1,099	(1,841)	(310)
Closing balance	(3,309)	(1,193)	(6,632)	(7,488)

The movement in net deferred tax assets/(liabilities) during the year is as follows:

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Deferred tax liabilities				
Fair value adjustments	(17,618)	(12,029)	(17,106)	(18,023)
	(17,618)	(12,029)	(17,106)	(18,023)

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Deferred tax assets				
Fair value adjustments	–	–	126	121
Provisions	14,309	10,836	10,348	10,414
	14,309	10,836	10,474	10,535

The amount of deferred tax recognised in the statements of financial position is as follows:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Fair value adjustments	(1,357)	(1,175)	(816)	(1,421)	(2,986)
Provisions	805	3,239	4,628	3,231	(1,842)
Deferred tax as per the income statement	(552)	2,064	3,812	1,810	(4,828)

18. COMMITMENTS

See note 26s for the Phosphates Business accounting policy on leases.

A commitment is a contractual obligation to make a payment in the future which is not provided for in the statements of financial position.

Capital commitments at 30 June 2016 relating to the acquisition of plant, property and equipment of $7.4 million (31 December 2015: $2.0 million; 2014: $5.2 million; 2013: $333 thousands), of which all periods relates to expenditure to be incurred within the next year.

At 30 June the Phosphates Business had the following commitments under operating leases principally related to vehicles:

	30 June	31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Expiry				
Within one year	350	478	866	839
1–2 years	144	192	462	684
2–3 years	18	66	119	184
3–5 years	–	–	8	–
Greater than 5 years	–	–	–	–
	512	736	1,455	1,707

19. EMPLOYEE NUMBERS AND COSTS

The average number of employees, excluding contractors, was 1,361 in the 6 month period ended 30 June 2016 (year ended 2015:1,195; 2014:1,255 thousand; 2013: 1,283). The principal location of employees is Brazil.

Payroll costs in respect of these employees were:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Wages and salaries	28,390	54,055	68,691	65,994
Social security costs	7,560	12,425	14,948	14,836
Post employment benefits[(1)]	216	377	589	8,002
Employee costs included in operating costs	36,166	66,857	84,228	88,832

(1) Includes contributions to defined contribution pension and medical plans, current and past service costs related to defined benefit pension and medical plans and other benefits provided to certain employees during retirement, see note 20.

Share-based payments

During the period and years the Phosphates Business had share-based payment arrangements with certain employees relating to shares of its ultimate parent entity, Anglo American Plc. These were two separate plans, the BSP (bonus share plan) for directors and managers and the LTIP (long term incentive plan) for directors. Both plans are settled by the award of ordinary shares to these employees conditional on three years continuous employment from the date of award.

The fair value of ordinary shares under the BSP and LTIP was calculated using a Black Scholes model and the Phosphates Business accounts for these short-based payment as being "cash-settled" in accordance with IFRIC11.

The number of instruments granted in each period was:

	12 months ended 31 December		
Share based Payment	**2015**	**2014**	**2013**
Number of instruments	29,153	53,922	58,275

Director's Remuneration

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Phosphates Business, directly or indirectly, including any director (executive and non-executive) of the AAFB.

Compensation for key management was as follows:

	6 months ended 30 June	6 months ended 30 June (unaudited)	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2015**	**2014**	**2013**
Salaries, allowances and benefits in kind	322	184	284	2,289	3,010
	322	184	284	2,289	3,010

Individuals by remuneration range

HKD Thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
0–1,000	1			1	1
1,000–1,500		1		1	1
1,500–2,000	1			1	
2,000–2,500			1	2	
2,500–3,000				1	3
3,000–3,500					
3,500–4,000					1
4,000–4,500					
4,500–5,000					
5,000–5,500					
5,500–6,000					
6,000–6,500					
6,500–7,000					
7,500–8,000				1	
8,000–8,500					
8,500–9,000					1
	2	1	1	7	7

Directors' emoluments comprise salaries and other benefits, performance bonus, incentive awards and directors' fees.

Top five salaries

The five highest paid individuals of the Phosphates Business included five directors during the year ended December 31, 2013, four directors in the year ended December 31, 2014, one director in the year ended December 31, 2015 and one director in the 6 months ended June 30, 2015 and two directors in the 6 months June 30, 2016. Details of whose emoluments are set out above. The emoluments of the remaining top five individuals are as follows:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Salaries, allowances and benefits in kind	332	477	657	250	–
	332	477	657	250	–

Individuals by remuneration range

HK$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
0–1,000	3	3	–	–	–
1,000–1,500	–	1	4	–	–
1,500–2,000	–	–	–	1	–
	3	4	4	1	–

20. RETIREMENT BENEFITS

See note 26p for the Phosphates Business's accounting policy on retirement benefits.

The Phosphates Business operates a defined contribution pension plan managed by Fundambrás Sociedade de Previdência Privada (Fundambrás), a private entity set up solely for the purpose of managing and the pension plans of Anglo American entities located in Brazil. The Phosphates Business is one of the sponsors of the pension plan and is responsible for the payment of contributions related to its employee base. Historically, this pension plan was defined benefit in nature and therefore certain pension obligations exist related to this period.

The Phosphates Business also records a provision for a FGTS (Fundo de Garantia do Tempo de Serviço) payable upon retirement for certain employees as required by a collective union agreement related to those employees.

Defined contribution plans

The defined contribution pension represents the actual contributions payable by the Phosphates Business to the pension plan. These are segregated into two types of plans:

- Basic Plan: where contributions are made solely by the Phosphates Business (as Sponsor) based on a defined percentage of the participants salary calculated in accordance with the plan rules.

- Supplementary Plan: where the participant elects to make contributions at either 3, 4 or 5% of their salary and the Phosphates Business (as sponsor) must provide a contribution equal to 50% of the monthly contribution made by the participant.

At 30 June 2016 there were no material outstanding or prepaid contributions and so no accrual or prepayment has been disclosed in the statements of financial position in relation to these plans.

The assets of the defined contribution plans are held separately in independently administered funds. The charge in respect of these plans is calculated on the basis of the contribution payable by the Phosphates Business in the relevant period.

FGTS

A summary of the movements in the FGTS obligation on the statements of financial position is as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Net liability recognised at 1 January	(1,370)	(2,272)	(7,747)	(11,531)
Net comprehensive income statement charge	80	181	(5,200)	2,475
Foreign exchange (CTA)	(494)	721	275	1,309
Net liability recognised at 30 June/31 December	(1,784)	(1,370)	(2,272)	(7,747)

FGTS is typically paid directly into a federally held fund on behalf of all employees with the Phosphates Business discharging its obligation at the time of payment. In the event of employee dismissal (without just cause) the Phosphates Business is required to pay (at the time of dismissal) a further 40% of the accrued balance for that employee, but at retirement no such additional payment is typically required. However, in the case of the Phosphates Business, certain employees (as a part of a collective bargaining agreement) are entitled to the receipt of this additional 40% at the time of retirement and the Phosphates Business therefore records a liability for this obligation calculated by an independent actuary.

Defined benefit pension plans

A summary of the movements in the net pension plan assets and retirement benefit obligations on the statements of financial position is as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Net liability recognised at 1January	(3,045)	(2,797)	(3,314)	(10,626)
Net comprehensive income statement charge	3,148	(1,380)	163	6,462
Foreign exchange (CTA)	(234)	1,132	354	850
Net liability recognised at 30 June/31 December	(131)	(3,045)	(2,797)	(3,314)

The defined benefit element of the pension plan was active until 30 November 1998, when the plan rules were amended such that all active participants at that date (and going forward) were converted on to defined contribution arrangements. The remaining defined benefit obligation relates to inactive members (those who have retired or had otherwise left the employment of the Phosphates Business prior to November 1998). The actuarial liability that existed at the date of transfer of the plan (to defined contribution) was to be funded by the Phosphates Business over a 20 year period (from the date of transfer). The value of the remaining balance at 30th June 2016 was $131 thousand. (2015: $3.0 million, 2014: $2.8 million, 2013: $3.3 million) due to be fully funded by 30 November 2018.

On the 1st May 2016, part of the Phosphates Business transferred its inactive membership to another entity in the Anglo American plc group for a one-time payment equal to the net liability value at the date of transfer.

The assets of these plans are held separately from those of the Phosphates Business, in an independently administered fund, in accordance with statutory requirements or local practice.

Independent qualified actuaries carry out full valuations annually using the projected unit credit method. The actuaries have updated the valuations to 30 June 2016. Assumptions are set after consultations with the qualified actuaries. While management believes the assumptions used are appropriate, a change in the assumptions used would impact the Phosphates Business's other comprehensive income.

Characteristics and risks of plans

The defined benefit plan exposes the Phosphates Business to risks such as longevity, investment risk, inflation risk and interest rate risk.

The weighted average duration of the scheme is 8.3 years (2015: 8.3 years; 2014: 8.9 years; 2013: 9.1 years). This represents the average period over which future benefit payments are expected to be made.

Employer contributions are made in accordance with the terms of the plan and vary each year. Employer contributions made in the period ended 30 June 2016 were $190 thousands (year ended 31 December 2015: $553 thousands; 2014: $908 thousands; 2013: $1.0 million). The Phosphates Business expects to contribute $425 thousands in the full year ended 31 December 2016.

The responsibility for the governance of the plans, including investment and funding decisions, lies with Fundambrás

Actuarial assumptions

The principal assumptions used to determine the actuarial present value of benefit obligations and pension charges and credits are detailed below (shown as weighted averages) (no data is provided for 30 June given that no defined benefit obligation existed at that date):

	30 June	31 December		
%	2016	2015	2014	2013
Defined benefit pension plans				
Average discount rate for plan liabilities	n/a	13.3%	11.3%	10.8%
Average rate of inflation	n/a	5.5%	5.0%	5.0%
Average rate of increase of pensions in payment	n/a	5.5%	5.0%	5.0%

Mortality assumptions are determined based on standard mortality tables with adjustments, as appropriate, to reflect experience of conditions locally. The mortality table AT-2000 Basic is used. The mortality table used at 31 December 2015 implies that a male or female aged 60 at the end of reporting period has a future life expectancy of 24.6 years (2014: 23.6 years; 2013: 23.6 years) and 27.3 years (2014: 26.5 years; 2013: 26.5 years), respectively.

Sensitivity analysis

Significant actuarial assumptions for the determination of pension liabilities are the discount rate, inflation rate and mortality. The sensitivity analysis below has been provided by local actuaries on an approximate basis based on changes of the assumptions occurring at the end of the period assuming that all other assumptions are held constant and the effect of the interrelationships is excluded. No sensitivity is provided at 30 June 2016 as the defined benefit obligation no longer existed at that date). The effect of the plan liabilities is as follows:

	30 June	31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Discount rate – 0.5% decrease	(40)	(828)	(1,387)	(1,525)
Inflation rate – 0.5% increase	(12)	(10)	–	–
Life expectancy – increase by one year	7	(442)	(759)	(786)

Income statement

The amounts recognised in the Income statement are as follows:

US$ thousands	**Charge to operating costs**	**Net charge to net finance costs**	**Total**
6 months ended 30 June 2016			
Pension plans	216	–	216
FGTS	142	–	142
	358	–	358
Year ended 31 December 2015			
Pension plans	377	–	377
FGTS	308	–	308
	685	–	685
Year ended 31 December 2014			
Pension plans	589	–	589
FGTS	2,487	–	2,487
	3,076	–	3,076
Year ended 31 December 2013			
Pension plans	8,002	–	8,002
FGTS	3,026	–	3,026
	11,028	–	11,028

US$ thousands	Charge to operating costs	Net charge to net finance costs	Total
6 months ended 30 June 2015			
Pension plans	189	–	189
FGTS	154	–	154
	343	–	343

Comprehensive income

The amounts recognised in the Statement of comprehensive income are as follows:

US$ thousands	Return on pian assets (excl. interest income)	Actuarial gain/(losses) on plan liabilities	Total
6 months ended 30 June 2016			
Pension plans	3,174	–	3,174
FGTS	–	–	–
	3,174	–	3,174
Year ended 30 June 2015			
Pension plans	(2,467)	935	(1,532)
FGTS	–	350	350
	(2,467)	1,285	(1,182)
Year ended 30 June 2014			
Pension plans	1,730	(1,886)	(156)
FGTS	–	7,143	7,143
	1,730	5,257	6,987
Year ended 30 June 2013			
Pension plans	(3,126)	6,291	3,165
FGTS	–	4,402	4,402
	(3,126)	10,693	7,567

(1) Comprises (losses)/gains from changes in financial and demographic assumptions as well as experience on plan liabilities.

Pension plan assets and liabilities

The present value of funded obligations in defined benefit pension plans and the fair value of the pension assets at 31 December is as follows:

	30 June	31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Equity	–	498	989	786
Bonds	1,998	18,020	29,867	34,904
Cash	–	14	–	–
Other	135	1,715	3,007	1,748
Fair value of pension plan as sets[(1)]	2,133	20,247	33,863	37,438
Active members	(2,264)	(2,203)	(4,502)	(5,147)
Deferred/Pensioners	–	(21,089)	(32,158)	(35,605)
Present value of funded obligations	(2,264)	(23,292)	(36,660)	(40,752)
Recognised net deficit	(131)	(3,045)	(2,797)	(3,314)

(1) The fair value of assets is used to determine the funding level of the plans.

All investments have been fair valued based on quoted market prices.

Movement analysis

The changes in the fair value of plan assets are as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
At 1 January	20,247	33,863	37,438	47,253
Interest income	1,146	(3,865)	(410)	3,949
Return on plan assets, excluding interest income[(1)]	3,174	(2,467)	1,730	(3,126)
Employer contributions	190	553	908	1,001
Employee contributions	10	31	58	71
Benefits paid	(997)	(2,475)	(3,924)	(5,816)
Other incl. Foreign Exchange Gain/loss	(21,638)	(5,393)	(1,937)	(5,894)
A t 30June / 31December	2,132	20,247	33,863	37,438

The changes in the present value of defined benefit pension obligations are as follows:

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
A t 1January	(23,292)	(36,660)	(40,752)	(54,483)
Current service costs	(45)	(157)	(242)	(334)
Interest costs	(1,317)	(3,033)	(4,409)	(4,542)
Employer contributions	(10)	(31)	(58)	(71)
Actuarial(losses)/gains	–	935	(1,886)	6,291
Benefits paid	997	2,475	3,924	5,815
Other incl. Foreign Exchange Gain/loss	21,403	13,179	6,763	6,572
At 30 June/31 December	(2,264)	(23,292)	(36,660)	(40,752)

The changes in the present value of FGTS obligations are as follows:

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
A t 1January	(1,370)	(2,272)	(7,747)	(11,531)
Current service costs	(46)	(111)	(1,527)	(2,070)
Interest costs	(96)	(194)	(959)	(956)
Actuarial(losses)/gains	–	350	7,143	4,402
Benefits paid	62	135	544	1,099
Other incl. Foreign Exchange Gain/loss	(334)	722	274	1,309
At 30 June/31 December	(1,784)	(1,370)	(2,272)	(7,747)

21. SHARE CAPITAL AND EQUITY ANALYSIS

Share capital

The share capital (both authorised and in issue) has a value of $188.6 million and relates to 662,961,000 shares in the 6 month period ended 30 June 2016 (2015, 2014 and 2013: $46.8 million and relates to 95,961000 shares).

Interest on Own Capital

In line with fiscal legislation in Brazil, AAFB issued its shareholders a payment of interest on own capital amounting to $10.1 million in 2015 (2014: $10.7 million; 2013: $7.8 million). This amount was calculated using the long term interest in Brazil known as Taxa de Juros de Longo Prazo (TJLP), for the period 1 January to 31 December 2015..

Other reserves

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Pension reserve	4,240	1,824	2,848	4,570
Legal reserve	993	9,442	9,442	7,809
Foreign exchange (CTA)	(107,156)	(160,411)	(69,764)	(36,357)
Total other reserves	(101,923)	(149,145)	(57,474)	(23,978)
Pension reserve				
Opening balance	1,824	2,848	4,570	-
Actuarial gains/(losses), net of tax	2,416	(1,024)	(1,722)	4,570
Closing balance	4,240	1,824	2,848	4,570
Legal reserve				
Opening balance	9,442	9,442	7,809	7,809
Additions	(8,449)	-	1,633	-
Closing balance	993	9,442	9,442	7,809
Foreign exchange (CIA)				
Opening balance	(160,411)	(69,764)	(36,357)	-
Additions	53,255	(90,647)	(33,407)	(36,357)
Closing balance	(107,156)	(160,411)	(69,764)	(36,357)

The legal reserve has been constructed via setting aside up to 5% of annual retained profits to the limit of 20% of share capital.

22. AUDITOR'S REMUNERATION

The following amounts were paid or payable to Deloitte Touche Tohmatsu Auditores Independentes, being the Phosphates Business's auditor in all periods presented:

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Paid to the Company's auditor for audit of the annual financial statements	130	75	149	192	209
Total audit fees	130	75	149	192	209

23. RELATED PARTY TRANSACTIONS

The AAFB's immediate parent and ultimate holding company are Ambras Holdings SÀRL and Anglo American plc, respectively.

The Phosphates Business, in the ordinary course of business, enters into sales, purchase and service transactions with other entities in the Anglo American plc group. Transactions are under terms no less favourable to the Phosphates Business than those arranged with third parties.

The tables below details the balances and transactions with related parties:

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Assets				
Accounts receivable				
Anglo American Niquel Brazil	3,794	2,433	289	–
Anglo American Mineiro de Ferro	26	–	5	8
Anglo American Niobio Brazil[(2)]	721	1,116	895	622
Anglo Operations Limited	182	148	220	425
Fundambras	3	2	–	–
Anglo American Serv ices UK Ltd	28	–	–	–
Anglo American Chile	24	–	–	–
Anglo American Peru	22	–	–	–
	4,800	3,699	1,409	1,055

US$ thousands	6 months ended 30 June 2016	12 months ended 31 December 2015	2014	2013
Liabilities				
Account payable				
Anglo American Niquel Brazil	3,424	1,867	862	291
Anglo American Minerio de Ferro	146	159	185	351
Anglo American Niobio Brazil	1,433	1,898	2,290	4
Anglo American Serv ices UK Ltd	1,177	941	169	29
Anglo Operations Limited	113	37	259	–
Anglo American Chile	89	97	130	133
	6,382	4,999	3,895	808
Loans payable - Ambras/AA Luxembourg SARL[(1)]	57,500	57,500	77,471	67,499

(1) The loan from Anglo American SA Finance Limited is unsecured and bears interest monthly at a variable rate. The loan is repayable on demand.

(2) The receivable refer to trade receivable was $52 thousands in the 6 months to 30 June 2016 (2015: $44 thousands; 2014: $165 thousands; 2013: $61 thousands).

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Receipt of services					
Anglo American Niquel Brazil[(1)]	(3,203)	(318)	(15,022)	(4,761)	(4,252)
Anglo American Minerio de Ferro	(494)	(506)	(978)	(1,192)	(656)
Anglo American Niobio Brazil	(406)	(17)	(942)	(1,692)	–
Anglo American Serv ices UK Ltd	(541)	(323)	(1,425)	(901)	(1,193)
Anglo Operations Limited	(202)	(153)	(545)	(643)	(912)
Anglo American Chile	(177)	(47)	(154)	(281)	(340)
	(5,023)	(1,364)	(19,066)	(9,470)	(7,353)

US$ thousands	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Provision of services					
Anglo American Niquel Brazil	1,091	(335)	(2,052)	(537)	–
Anglo American Minerio de Ferro	22	–	–	–	–
Anglo American Niobio Brazil[2]	943	597	612	6,011	3,980
Anglo American Serv ices UK Ltd	25	–	–	–	–
Anglo American Chile	21	–	–	–	–
Anglo American Peru	19	–	–	–	–
	2,121	262	(1,440)	5,474	3,980
Interest paid/accrued					
Ambras/AA Luxembourg SARL	(941)	(1,319)	(2,289)	(2,033)	(2,249)

(1) Includes purchases of energy totalling $768 in the 6 months to 30 June 2016 (year end 2015: $4.176 thousands; 2014: $740 thousands and zero in 2013)

(2) Includes sales related to tailings totalling zero in the 6 months to 30 June 2016 (year end 2015: $24 thousands; 2014: $51 thousands; 2013: $519 thousands)

In accordance with IAS 24 Related Party Disclosures (Amended), key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Phosphates Business, directly or indirectly, including any director (executive and non-executive) of the AAFB.

Information relating to pension fund arrangements is disclosed in note 20.

24. EVENTS OCCURRING AFTER END OF PERIOD

There have been no reportable events required by IAS 10 from 30 June 2016 to the date of issuance these financial statements.

25. FINANCIAL RISK MANAGEMENT

The Board approves and monitors risk management processes, including documented treasury policies, counterparty limits, controlling and reporting structures.

The types of risk exposure, the way in which such exposure is managed and quantification of the level of exposure in the statements of financial position at 30 June is provided as follows (subcategorised into credit risk, commodity price risk, foreign exchange risk and interest rate risk).

Market Risk

a) Credit risk

Credit risk is the risk that a counterparty to a financial instrument will cause a loss to the Phosphates Business by failing to pay for its obligation. The Phosphates Business's principal financial assets are cash, trade and other receivables and financial investments. The Phosphates Business's maximum exposure to credit risk primarily arises from these financial assets as follows:

	6 months ended 30 June	12 months ended 31 December		
US$ thousands	**2016**	**2015**	**2014**	**2013**
Cash and cash equivalents	96,156	41,952	31,967	44,689
Trade and other receivables[(1)]	71,869	40,277	67,509	65,125
	168,025	82,229	99,476	109,814

(1) Trade and other receivables exclude prepayments and accrued income.

The Phosphates Business limits credit risk on liquid funds through diversification of exposures with a range of approved financial institutions. Counterparty limits are set for each financial institution with reference to credit ratings assigned by Standard & Poor's, Moody's and Fitch Ratings.

Given the Phosphates Business's insurance cover (including letters of credit from financial institutions), it does not have significant concentration of credit risk in respect of trade receivables.

A provision for impairment of trade receivables is made where there is an identified loss event, which based on previous experience, is evidence of a reduction in the recoverability of the cash flows. Details of the credit quality of trade receivables and the associated provision for impairment are disclosed in note 12.

b) Foreign exchange risk

The Phosphates Business is exposed to other currencies principally as a result of non-BRL expenses and to a lesser extent, non-BRL revenues. The Phosphates Business's policy is generally not to hedge such exposures.

26. ACCOUNTING POLICIES

Basis of preparation

The basis of preparation is presented in note 1.

Going concern

The Directors have, at the time of approving the financial statements, a reasonable expectation that the Phosphates Business has adequate resources to continue in operational existence for the foreseeable future. Thus the going concern basis of accounting in preparing the financial statements continues to be adopted. Further details are contained in the Directors' report.

26a. Revenue recognition

Revenue is derived principally from the sale of goods and is measured at the fair value of consideration received or receivable, after deducting discounts, volume rebates, value added tax and other sales taxes. A sale is recognised when the significant risks and rewards of ownership were transferred. This is usually when title and insurance risk have passed to the customer.

Revenues from the sale of material by-products are included within revenue. Where a by-product is not regarded as significant, revenue is credited against the cost of sales.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

26b. Borrowing costs

Interest on borrowings directly relating to the financing of qualifying capital projects under construction is added to the capitalised cost of those projects during the construction phase, until such time as the assets are substantially ready for their intended use or sale which, in the case of mining properties, is when they are capable of commercial production. Where funds have been borrowed specifically to finance a project, the amount capitalised represents the actual borrowing costs incurred. Where the funds used to finance a project form part of general borrowings, the amount capitalised is calculated using a weighted average of rates applicable to relevant general borrowings of the Phosphates Business during the period. All other borrowing costs are recognised in the income statement in the period in which they are incurred.

26c. Tax

The tax expense includes the current tax and deferred tax charge recognised in the income statement.

Current tax payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are not taxable or deductible. The Phosphates Business's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the reporting date.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary differences arise from the initial recognition of goodwill or of an asset or liability in a transaction (other than in a business combination) that affects neither taxable profit nor accounting profit.

The carrying amount of deferred tax assets is reviewed at each reporting date and is adjusted to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax is charged or credited to the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also taken directly to equity.

Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same taxation authority and the Phosphates Business intends to settle its current tax assets and liabilities on a net basis in that taxation authority.

26d. Non-mining licences and other intangibles

Non-mining licences and other intangibles are measured at cost less accumulated amortisation and accumulated impairment losses. Intangible assets are amortised over their estimated useful lives, usually between 3 and 20 years, except goodwill and those intangible assets that are considered to have indefinite lives. For intangible assets with a finite life, the amortisation period is determined as the period over which the Phosphates Business expects to obtain benefits from the asset, taking account of all relevant facts and circumstances including contractual lives and expectations about the renewal of contractual arrangements without significant incremental costs. An intangible asset is deemed to have an indefinite life when, based on an analysis of all of the relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate cash flows for the Phosphates Business. Amortisation methods, residual values and estimated useful lives are reviewed at least annually.

26e. Property, plant and equipment

Mining properties and leases include the cost of acquiring and developing mining properties and mineral rights.

Mining properties are depreciated to their residual values using the unit of production method based on Proved and Probable Ore Reserves and, in certain limited circumstances, other Mineral Resources. Mineral Resources are included in depreciation calculations where there is a high degree of confidence that they will be extracted in an economic manner. Depreciation is charged on new mining ventures from the date that the mining property is capable of commercial production. When there is little likelihood of a mineral right being exploited, or the value of the exploitable mineral right has diminished below cost, an impairment loss is recognised in the income statement.

Capital works in progress are measured at cost less any recognised impairment. Depreciation commences when the assets reach commercial production, at which point they are transferred to the appropriate asset class. Buildings and plant and equipment are depreciated to their residual values at varying rates on a straight line basis over their estimated useful lives or the Reserve Life, whichever is shorter. Estimated useful lives normally vary from up to 20 years for items of plant and equipment to a maximum of 50 years for buildings. Land is not depreciated.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components).

Depreciation methods, residual values and estimated useful lives are reviewed at least annually.

Assets held under finance leases are depreciated over the shorter of the lease term and the estimated useful lives of the assets.

Gains or losses on disposal of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount. The gain or loss is recognised in the income statement.

26f. Deferred stripping

The removal of overburden and other mine waste materials is often necessary during the initial development of a mine site, in order to access the mineral ore deposit. The directly attributable cost of this activity is capitalised in full within mining properties and leases, until the point at which the mine is considered to be capable of commercial production. This is classified as expansionary capital expenditure, within investing cash flows.

The removal of waste material after the point at which a mine is capable of commercial production is referred to as production stripping.

When the waste removal activity improves access to ore extracted in the current period, the costs of production stripping are charged to the income statement as operating costs in accordance with the principles of IAS 2 Inventories.

Where production stripping activity both produces inventory and improves access to ore in future periods the associated costs of waste removal are allocated between the two elements. The portion which benefits future ore extraction is capitalised within stripping and development capital expenditure. If the amount to be capitalised cannot be specifically identified it is determined based on the volume of waste extracted compared with expected volume for the identified component of the orebody. Components are specific volumes of a mine's orebody that are determined by reference to the Life of Mine plan.

In certain instances significant levels of waste removal may occur during the production phase with little or no associated production. The cost of this waste removal is capitalised in full.

All amounts capitalised in respect of waste removal are depreciated using the unit of production method based on Proved and Probable Ore Reserves of the component of the orebody to which they relate.

The effects of changes to the Life of Mine plan on the expected cost of waste removal or remaining reserves for a component are accounted for prospectively as a change in estimate.

26g. Impairment of property, plant and equipment and intangible assets excluding goodwill

At each reporting date, the Phosphates Business reviews the carrying amounts of its property, plant and equipment and intangible assets to determine whether there is any indication that those assets are impaired. If such an indication exists, the recoverable amount of the asset is estimated in order to determine the extent of any impairment. Where the asset does not generate cash flows that are independent from other assets, the Phosphates Business estimates the recoverable amount of the CGU to which the asset belongs. An intangible asset with an indefinite useful life is tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs of disposal and value in use (VIU). In assessing VIU, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset or CGU is estimated to be less than its carrying amount, the carrying amount of the asset or CGU is reduced to its recoverable amount. An impairment loss is recognised in the income statement.

Where an impairment loss subsequently reverses, the carrying amount of the asset or CGU is increased to the revised estimate of its recoverable amount, but so that the carrying amount does not exceed that which would have been determined had no impairment been recognised. Impairment loss reversal is recognised in the income statement..

26h. Biological assets

Biological assets are measured at fair value less costs to sell, with any change therein recognised in the income statement. Costs to sell include all costs that would be necessary to sell the assets, including transportation costs. Standing timber is transferred to inventories at its fair value less costs to sell at the date of harvest.

26i. Exploration, evaluation and development expenditure

Exploration and evaluation expenditure is expensed in the year in which it is incurred. When a decision is taken that a mining property is economically feasible, all subsequent evaluation expenditure is capitalised within property, plant and equipment including, where applicable, directly attributable pre-production development expenditure. Capitalisation of such expenditure ceases when the mining property is capable of commercial production.

Exploration properties acquired are recognised in the statements of financial position at cost less any accumulated impairment losses. Such properties and capitalised evaluation and pre-production development expenditure prior to commercial production are assessed for impairment in accordance with the Phosphates Business's accounting policy stated above.

26j. Financial asset investments

Investments, other than investments in associates, are financial asset investments and are initially recognised at fair value. At subsequent reporting dates, financial assets classified as held-to-maturity or as loans and receivables are measured at amortised cost, less any impairment losses.

Other investments are classified as either at fair value through profit or loss (which includes investments held for trading) or available for sale financial assets. Both categories are subsequently measured at fair value. Where investments are held for trading purposes, unrealised gains and losses for the period are included in the income statement within other gains and losses. For available for sale investments, unrealised gains and losses are recognise in equity until the investment is disposed of or impaired, at which time the cumulative gain or loss previously recognised in equity is recycled to the income statement.

26k. Impairment of financial assets (including receivables)

A financial asset not measured at fair value through profit or loss is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset.

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount and the present value of the estimated cash flows discounted at the asset's original effective interest rate. Losses are recognised in the income statement. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through the income statement.

Impairment losses relating to available for sale investments are recognised when a decline in fair value is considered significant or prolonged. These impairment losses are recognised by transferring the cumulative loss that has been recognised in the statement of comprehensive income to the income statement. The loss recognised in the income statement is the difference between the acquisition cost and the current fair value.

26l. Cash and debt

Cash and cash equivalents

Cash and cash equivalents comprise cash in hand and on demand deposits, together with short term, highly liquid investments that are readily convertible to a known amount of cash and that are subject to an insignificant risk of changes in value. Cash and cash equivalents are measured at amortised cost.

Accounts receivable

It corresponds to the receivable amounts for the sale of goods. If the receipt period is one year or less so the accounts receivable are classified as current assets. Otherwise (more than one year), they are presented as non-current assets. If there is any accounts receivable then it will be recognized at its fair value and subsequently measured at amortized cost using the method of effective interest rate less the allowance for doubtful accounts ("**impairment**"). The allowance for doubtful accounts is established if there is objective evidence that the Phosphates Business will not be able to receive all amounts in accordance to the original terms of its accounts receivable.

Financial liabilities and equity instruments

Financial liabilities and equity instruments are classified and accounted for as debt or equity according to the substance of the contractual arrangements entered into.

26m. Derecognition of financial assets and financial liabilities

Financial assets are derecognised when the right to receive cash flows from the asset has expired, the right to receive cash flows has been retained but an obligation to on-pay them in full without material delay has been assumed or the right to receive cash flows has been transferred together with substantially all the risks and rewards of ownership.

Financial liabilities are derecognised when the associated obligation has been discharged, cancelled or has expired.

26n. Inventories

Inventory and work in progress are measured at the lower of cost and net realisable value. The production cost of inventory includes an appropriate proportion of depreciation and production overheads. Cost is determined on the following basis:

- Raw materials and consumables are measured at cost on a weighted average cost basis.
- Work in progress and finished products are measured at raw material cost, labour cost and a proportion of manufacturing overhead expenses.

26o. Environmental restoration and decommissioning obligations

An obligation to incur environmental restoration, rehabilitation and decommissioning costs arises when disturbance is caused by the development or ongoing production of a mining property. Such costs arising from the decommissioning of plant and other site preparation work, discounted to their net present value, are provided for and capitalised at the start of each project, as soon as the obligation to incur such costs arises.

These costs are charged to the income statement over the life of the operation, through the depreciation of the asset and the unwinding of the discount on the provision. Costs for restoration of subsequent site damage which is created on an ongoing basis during production are provided for at their net present values and recognised in the income statement as extraction progresses.

Changes in the measurement of a liability relating to the decommissioning of plant or other site preparation work (that result from changes in the estimated timing or amount of the cash flow or a change in the discount rate), are added to or deducted from the cost of the related asset in the current period. If a decrease in the liability exceeds the carrying amount of the asset, the excess is recognised immediately in the income statement. If the asset value is increased and there is an indication that the revised carrying value is not recoverable, an impairment test is performed in accordance with the accounting policy set out above.

26p. Retirement benefits

The Phosphates Business operates both defined benefit and defined contribution pension plans for its employees. For defined contribution plans the amount recognised in the income statement is the contributions paid or payable during the year.

For defined benefit pension, full actuarial valuations are carried out at least every three years using the projected unit credit method and updates are performed for each financial year end. The average discount rate for the plans' liabilities is based on AA rated corporate bonds of a suitable duration and currency or, where there is no deep market for such bonds, is based on government bonds. Pension plan assets are measured using year end market values.

Remeasurements comprising actuarial gains and losses, movements in asset surplus restrictions and the return on scheme assets (excluding interest income) are recognised immediately in the statement of comprehensive income and are not recycled to the income statement. Any increase in the present value of plan liabilities expected to arise from employee service during the year is charged to operating profit. The net interest income or cost on the net defined benefit asset or liability is included in investment income and interest expense respectively.

Past service cost is recognised immediately to the extent that the benefits are already vested and otherwise amortised on a straight line basis over the average period until the benefits vest.

The retirement benefit obligation recognised on the statements of financial position represents the present value of the deficit or surplus of the defined benefit plans. Any recognised surplus is limited to the present value of available refunds or reductions in future contributions to the plan.

26q. Share-based payments

The Phosphates Business makes equity settled share-based payments to certain employees, which are measured at fair value at the date of grant and expensed on a straight line basis over the vesting period, based on the Phosphates Business's estimate of shares that will eventually vest. For those share schemes with market related vesting conditions, the fair value is determined using the Monte Carlo method at the grant date. The fair value of share options issued with non-market vesting conditions has been calculated using the Black Scholes model. For all other share awards, the fair value is determined by reference to the market value of the shares at the grant date. For all share schemes with non- market vesting conditions, the likelihood of vesting has been taken into account when determining the relevant charge. Vesting assumptions are reviewed during each reporting period to ensure they reflect current expectations.

26r. Foreign currency transactions and translation

Taking into account the relevance of domestic sales and other factors such as pricing and set of currencies of cost structure, the Brazilian real has been elected as the business' functional currency. To present the financial statements in U.S. dollars, all elements of the financial position have been translated from local currency into U.S. dollars at the exchange rate in force at each balance-sheet date. Income statement, cash flows, and shareholders' equity activity items have been translated at monthly average exchange rates and accumulated for each year/period. The differences arising from the impact of exchange rate changes on the beginning equity and on the equity activity from the averages to the final rate have been recognized as Cumulative Translation Adjustments (CTA) in a specific caption of shareholders' equity. Foreign currency transaction gains and losses resulting from exchange rate changes on foreign currency denominated assets and liabilities are recognized in income currently and classified in a specific caption under finance income and expense.

26s. Leases

In addition to lease contracts, other significant contracts are assessed to determine whether, in substance, they are or contain a lease. This includes assessment of whether the arrangement is dependent on use of a specific asset and the right to use that asset is conveyed through the contract.

Rental costs under operating leases are recognised in the income statement in equal annual amounts over the lease term.

Yours faithfully

Deloitte Touche Tohmatsu
Auditores Independentes
São Paulo, Brazil

MANAGEMENT DISCUSSION AND ANALYSIS OF THE NIOBIUM BUSINESS COMBINED FINANCIAL STATEMENTS

BASIS OF PRESENTATION

Set out below is the management discussion and analysis of the combined financial statements of the Niobium Business. The analysis covers each of the three years ended 31 December 2013, 2014 and 2015 and the six months ended 30 June 2016 (the "**Relevant Period**").

This section should be read in conjunction with the accountants' report of the Niobium Business and the related notes included in appendix IIA of this circular. For the avoidance of doubt, we note that the acquisition of the Niobium Sales Function contemplates only the purchase of the Closing AAML Niobium Stock, the Niobium Sales Transferring Contracts and all obligations thereunder and the Niobium Sales Employees. However, the Accountant's Report presentation includes certain items, such as trade and other receivables, trade and other payables and various other relevant assets and liabilities, that are outside the scope of the acquisition.

BUSINESS OVERVIEW

The Niobium Business is the world's second largest supplier of ferroniobium, which is a key component in high-end steel manufacturing. The operations are located in the state of Goias in Brazil, where ore is mined from the Boa Vista open pit mine and processed locally to produce ferroniobium. Sales are made through the marketing division to customers, typically steel plants located in Europe, China and the United States of America.

BVFR expansion

Within the Relevant Period, the Boa Vista Fresh Rock ("**BVFR**") concentration plant was built in order to increase niobium production through the ability to process fresh rock ore, as the oxide ore at the Boa Vista mine, which feeds the existing BV plant, is expected to be depleted in the near-term. The BVFR plant construction was completed in September 2014, with first saleable production in November 2014. The BVFR plant reached commercial production in March 2016 and is expected to reach full design capacity later in 2016. Consequently, the results relating to the BVFR plant prior to reaching commercial production have been capitalised (i.e. capitalisation ceased from 1 March 2016).

FINANCIAL PERFORMANCE

Revenue

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Niobium Business' turnover was USD181.6 million, USD179.8 million, USD110.8 million and USD85.9 million, respectively.

Revenue in 2015 was 38% lower than 2014 as a result of the capitalisation of the revenue associated with the BVFR plant which was still in the ramp-up phase (refer above). Excluding the impact of BVFR capitalisation, revenue in 2015 was higher than 2014 driven by higher sales volumes (5,124 tonnes in 2015 compared to 4,618 tonnes in 2014) partially offset by lower realised prices.

Pricing and sales volumes remained broadly consistent between 2013 and 2014.

The Niobium Business' revenue increased by 8% from USD79.4 million for the six months ended 30 June 2015 to USD85.9 million for the six months ended 30 June 2016 primarily due to a 145-tonnes increase in sales volume following the BVFR implementation (capitalisation ceased from 1 March 2016) partiality offset by lower realised prices.

Administrative and other expenses/gains

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Niobium Business' administrative and other expenses/gains were USD19.7 million, USD26.2 million, USD44.5 million and USD17.9 million, respectively.

Increase in administrative and other expenses/gains in 2015 compared to 2014 was primarily driven by a reassessment of legal and restoration provisions (total non-cash impact of USD14.4 million due to an increase in the provisions) partially offset by a USD1.1 million gain on foreign exchange translation of monetary assets (in contrast to a USD3.3 million loss in 2014).

Increase in administrative and other expenses/gains in 2014 compared to 2013 was primarily driven by a USD5.8 million loss on foreign exchange translation of monetary assets (in contrast to a USD4.7 million gain in 2013).

The Niobium Business' administrative and other expenses/gains decreased by 50% from USD35.2 million for the six months ended 30 June 2015 to USD17.9 million for the six months ended 30 June 2016 primarily due to a reassessment of legal and restoration provisions in 2015.

Operating Profit

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Niobium Business' operating profit was USD70.1 million, USD62.0 million, USD24.1 million and USD11.8 million, respectively, and operating margins were 39%, 34%, 22% and 14%, respectively.

For each of the two years ended 31 December 2014, 2015, and the six months ended 30 June 2016 (during which BVFR was capitalised during January and February), the capitalised results associated with BVFR were a loss of USD1.1 million, a profit of USD22.8 million and USD11.2 million, respectively.

The 61% decrease in operating profit in 2015 from 2014 was primarily driven by the lower sales volume (excluding volumes from the BVFR plant which were capitalised), a reassessment of legal and restoration provisions (total non-cash impact of USD12.8 million due to an increase in the provisions), and the impact of operating cost inflation in Brazil. These impacts were partially offset by the benefit of the weaker BRL. Excluding the non-cash impact of USD12.8 million from legal and restoration provisions, operating profit and operating margin in 2015 would be USD36.9 million and 35%, respectively.

The 12% decrease in operating profit in 2014 from 2013 was primarily driven by an increase in costs due to inflation, above-inflation cost increases in mining and labour, and a non-cash FX loss on translation of monetary assets (loss of USD5.8 million), which more than offset the positive impact on operating costs of the weaker BRL.

The Niobium Business' operating profit decreased by 24% from USD15.6 million for the six months ended 30 June 2015 to USD11.8 million for the six months ended 30 June 2016 primarily due to lower prices and inflation, partially offset by a weaker BRL and higher sales volume. Underlying operating profit of USD8.1 million from BVFR was capitalised during January and February 2016, following which the operation reached commercial production.

Royalties

In October 2000, Anglo purchased from an independent third party the remaining 30% minority stake in the Niobium Business for a nominal fee plus a 4.5% revenue-linked royalty. A provision is included in the balance sheet for future royalties, with the payment of the royalty each period being booked against this provision. As such the payment of this royalty does not affect profit, although it is included within the sub-total of cash outflows from operating activities in the cash flow. The provision is re-assessed at each balance sheet period, with any change in the provision being included against the mineral right asset.

In addition, the Niobium Business pays CFEM (state royalties), at a rate of 2% of the cost of extraction up to the point where the industrial process begins. CFEM is included in operating costs.

REVIEW OF HISTORICAL OPERATING RESULTS

USD thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
Revenue	4	85,885	79,353	110,835	179,845	181,635
Operating costs	4	(74,039)	(63,784)	(86,739)	(117,844)	(111,521)
Prof it before net finance costs and tax		11,846	15,569	24,096	62,001	70,114
Investment income	5	5,591	2,054	5,118	2,278	4,692
Interest expense	5	(10,242)	(7,234)	(12,264)	(10,581)	(12,795)
Other financing gain/(losses)	5	16,671	(1,626)	(7,179)	(3,536)	(9,229)
Net finance costs		12,020	(6,806)	(14,325)	(4,767)	(17,332)
Profit before tax		23,866	8,763	9,771	57,234	52,782
Income tax expense	6	(4,081)	(1,125)	(5,165)	(48,996)	(24,643)
Prof it for the period/years		19,785	7,638	4,606	8,238	28,140

Liquidity and capital resources

USD Thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
I. Cash flow from operating activities:						
Cash received from sales of goods and provision of services		59,988	95,060	199,785	190,218	171,347
Other cash receipts relating to operating activities		3,354	6,802	3,774	2,830	7,455
Sub-total of cash inflows from operating activities		63,342	101,862	203,559	193,048	178,802
Cash payments for goods purchased and services received		51,898	63,139	115,362	85,845	87,202
Cash payments to and on behalf of employees		11,549	10,642	18,191	30,580	23,960
Payments of various types of taxes		18,823	8,045	14,712	41,463	31,433
Other cash payments relating to operating activities		(173)	100	280	239	13
Sub-total of cash outflows from operating activities		82,097	81,926	148,545	158,127	142,608
Net cash flow from operating activities		(18,755)	19,936	55,014	34,921	36,194
II. Cash flows from investing activities:						
Other cash receipts relating to investing activities		22,761	–	–	–	–
Sub-total of cash inflows from investing activities		22,761	–	–	–	–
Intangible assets and other long-term assets		19,641	11,397	40,662	176,891	199,820
Sub-total of cash outflows from investing activities		19,641	11,397	40,662	176,891	199820
Net cash flow from investing activities		3,120	(11,397)	(40,662)	(176,891)	(199,820)

USD Thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
III. Cash flows from financing activities:						
Cash receipts from borrowings		–	–	–	146,000	180,000
Other Cash receipts relating to financing activities		5,341	1,450	3,916	2,035	1,899
Share capital increase		–	–	64,000	45,000	–
Sub-total of cash inflows from financing activities		5,431	1,450	67,916	193,035	181,899
profits and settlement of interests		–	–	8,564	6,876	7,235
Other cash payments relating to financing activities		5,466	4,925	10,044	8,717	3,225
Sub-total of cash outflows from financing activities		5,466	4,925	18,608	15,593	10,460
Net cash flow from financing activities		(125)	(3,475)	49,308	177,442	171,439
IV. Effect of foreign exchange rate changes on						
Cash and cash equivalents		18,983	(8,488)	(33,844)	(21,948)	(5,359)
V. Net increase in cash and cash equivalents		3,223	(3,424)	29,816	13,524	2,454
Add: Opening balance of cash and cash equivalents	10	65,647	35,831	35,831	22,306	19,852
VI. Closing balance of cash and cash equivalents	10	68,870	32,407	65,647	35,831	22,306

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Niobium Business' cash balance was USD22.3 million, USD35.8 million, USD65.6 million and USD68.9 million, respectively. Cash and cash equivalents mainly comprise short term BRL-denominated investment funds indexed to local interest rates, and cash held by the marketing division outside of Brazil.

Cash flow from operating activities

There was strong cash flow from operating activities across the Relevant Period with increase in 2015 following the BVFR implementation.

The increase in net operating cash inflows in 2015 compared to 2014 was driven by higher inflows from sales of niobium following the BVFR implementation coupled with a weaker BRL benefiting costs in USD terms.

Net operating cash flow in 2014 was broadly flat compared to 2013 as pricing and sales volumes remained broadly consistent between 2013 and 2014.

Cash flow from investing activities

Cash outflow from investing activities in the Relevant Period primarily relates to the capital expenditure required to build the BVFR plant (being USD390 million in total) but also includes stay-in-business capital expenditure (for each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, being USD23.9 million, USD26.0 million, USD23.5 million and USD5.0 million, respectively).

Cash flow from financing activities

An intercompany loan from Capital Luxembourg was utilised to fund the construction of the BVFR plant. The interest rate charged is based on LIBOR plus a margin limited to 3% per annum, paid on a monthly basis in arrears. As this loan relates to the financing to support a construction project, the interest is capitalised during the construction and ramp-up phases. This loan had a balance of USD336 million as at 30 June 2016 (which was unchanged from the balance as at 30 June 2015) which will be assigned to the Group by Anglo and will then be repaid.

During the construction of the BVFR plant, a derivative instrument was put in place to hedge the BRL exposure on capital expenditure. The non-effective hedge portion of realised gains on this derivative instrument is expensed and the effective portion of realised gains and losses are capitalised.

Gearing Ratio

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Niobium Business' gearing ratio (total liabilities over total assets) was 72%, 74%, 68% and 68%, respectively.

The gearing ratio as at 31 December 2014 increased slightly compared to prior year as a result of an increase in borrowings of USD146 million between 31 December 2013 and 31 December 2014, used to fund the construction of the BVFR plant. The gearing ratio decreased in December 2015 compared to 2014 as a result of an increase in property, plant and equipment (being construction in progress assets from BVFR expansion) and cash. The borrowing level remained flat across both periods.

COMMITMENTS

Material acquisition and disposal

During the Relevant Period, no material acquisitions or disposals of subsidiaries occurred within the Niobium Business.

Future plans for material investment in capital assets

During the Relevant Period, save and except for the prior mentioned construction of the BVFR plant, the Niobium Business did not have any future plans for material investment or capital assets. The Niobium Business has a number of options for future growth, but at present there are no approved plans for future material investment.

Capital Commitments

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Niobium Business' capital commitments was USD8 million, USD11 million, USD32 million and USD2.1 million, respectively, for services that had been contracted but not provided for. The higher level as at 31 December 2015 was due to the phasing of the BVFR plant construction.

Other Commitments

Other commitments are principally comprised of an operating lease related to vehicles (refer to note 17 of the financial statements).

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Niobium Business' operating leases were USD0.3 million, USD0.6 million, USD0.3 million and USD0.3 million, respectively.

CONTINGENT LIABILITIES

The Niobium Business is subject to various claims and, following appropriate legal advice where the risk of loss is assessed, a provision is raised if it is believed that a loss is probable (refer to note 15 of the financial statements). However, if the chance of loss is considered only possible, no provision is raised.

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the amount of possible claims where no provision was raised was USD54,000, USD98,000, USD5.5 million and USD1.7 million, respectively.

REMUNERATION OF EMPLOYEES, REMUNERATION POLICIES, BONUS AND SHARE OPTION SCHEMES

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Niobium Business' total employee remuneration was USD26.1 million, USD40.1 million, USD33.6 million and USD20.6 million, respectively. In 2015, this number excludes USD3.7 million of labour costs that was capitalised as a result of the BVFR ramp up (in contrast to labour costs of USD7.9 million in 2014 and nil in 2013).

Employees are primarily located in Brazil with some employees associated with the Niobium Sales Function also located in Singapore and the United Kingdom.

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the average number of employees excluding contractors was respectively 421, 513, 549 and 610.

In the Relevant Period, a group-wide bonus arrangement was operated. For Brazilian employees, this took the form of a profit distribution scheme, in line with agreements with the local unions representing the employees. In addition, each year certain directors and managers participate in a deferred bonus arrangement (DBA) under which shares of Anglo are granted as bonuses subject to a continued employment during a defined period. Dividend equivalents are payable on such bonus shares during the deferral period.

For each of the three years ended 31 December 2013, 2014 and 2015, the value distributed in shares (based on the USD market value on date of award) were USD2.3 million, USD0.8 million and USD0.3 million, respectively.

EXPOSURE TO FLUCTUATION IN EXCHANGE RATES AND RELATED HEDGES

Substantially all of the Niobium Business' sales are denominated in USD while a majority of operating costs are incurred in BRL (approximately 80% of total costs). This creates a risk that profitability will be lower than anticipated in the event of unfavourable movement in the BRL/USD exchange rate. In addition, there might be foreign exchange gains or losses arising from the retranslation of monetary items.

As a result, fluctuations in exchange rates may have a significant impact on the Niobium Business' financial results in any particular period. Net foreign exchange gains/(losses) for each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016 were USD4.6 million, USD(2.2 million), USD(5.4 million) and USD16.5 million, respectively.

Foreign exchange gains/(losses) on translation of monetary items are recorded within operating costs in the financial statements (refer to note 4).

MANAGEMENT DISCUSSION AND ANALYSIS OF AAFB FINANCIAL STATEMENTS

BASIS OF PRESENTATION

Set out below is the management discussion and analysis of the financial statements of the Phosphates Business. The analysis covers each of the three years ended 31 December 2013, 2014 and 2015 and the six months ended 30 June 2016 (the "**Relevant Period**").

This section should be read in conjunction with the accountants' report on the Phosphates Business and the related notes included in appendix IIB of this circular.

BUSINESS OVERVIEW

The Phosphates Business is the second largest fertiliser producer in Brazil. It comprises an integrated operation that covers mining phosphate ore, beneficiation to produce P_2O_5 concentrate, and processing into intermediate and final products.

The operations are located in Brazil at the Ouvidor mine/benefication plant and adjacent Catalão chemical complex in the state of Goias, and the Cubatão chemical complex in the state of São Paulo.

FINANCIAL PERFORMANCE

Revenue

Sales are made domestically in Brazil, with revenue mostly derived from sales of high analysis and low analysis fertilisers, DCP, sulphuric acid and phosphoric acid, which are typically priced against a USD reference, but with revenues received in BRL.

For the years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Phosphates Business revenue was USD543.8 million, USD487.0 million, USD431.1 million and USD215.5 million, respectively.

Declining revenue across the Relevant Period was primarily driven by reductions in achieved price (driven by a decline in international fertiliser prices and to a lesser extent due to declining production volumes).

The Phosphates Business' revenue decreased by 1% from USD217.9 million for the six months ended 30 June 2015 to USD215.5 million for the six months ended 30 June 2016 primarily due to a decline in prices partially offset by a 16% increase in fertiliser sales.

Administrative, other expenses and selling and distribution costs

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Phosphates Business' administrative, other expenses and selling and distribution costs were USD49.3 million, USD49.8 million, USD46.3 million and USD17.5 million, respectively.

The decrease in administrative, other expenses and selling and distribution costs in 2015 compared to 2014 was primarily driven by the weaker BRL (average foreign exchange rate was BRL3.34/USD in 2015 compared to BRL2.35/USD in 2014) and lower evaluation expenditure, partially offset by the impact of an increased provision for closure and decommissioning.

Administrative and other expenses were broadly flat in 2014 compared to 2013, with the benefit of the weaker BRL (average foreign exchange rate was BRL2.35/USD in 2014 compared to BRL2.16/USD in 2013) broadly offset by cost increases including selling and distribution costs.

The Phosphates Business' administrative, other expenses and selling and distribution costs decreased by 29% from USD24.8 million for the six months ended 30 June 2015 to USD17.5 million for the six months ended 30 June 2016 primarily due to a 25% devaluation of the BRL (average foreign exchange rate was BRL3.70/USD in June 2016 compared to BRL2.97/USD in June 2015).

Operating Profit

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Phosphates Business' operating profit was USD79.8 million, USD61.0 million, USD90.1 million and USD47.2 million, respectively, and operating margins were 15%, 13%, 21% and 22%, respectively.

The 48% increase in operating profit in 2015 from 2014 was primarily driven by an increase in sales prices, partially offset by increased closure and decommissioning provisions, as mentioned previously, together with a net negative foreign exchange (impact on operating costs together with non-cash balance sheet translation) impact as a result of the weaker BRL.

The 24% decrease in operating profit in 2014 from 2013 was primarily driven by lower sales prices and lower sales volumes, partially offset by a net positive foreign exchange impact as a result of the weaker BRL.

The Phosphates Business' operating profit increased by 30% from USD36.4 million for the six months ended 30 June 2015 to USD47.2 million for the six months ended 30 June 2016 primarily due to lower costs, higher sales volume and a positive net impact of the weaker BRL which more than offset the decline in prices.

Royalties

In October 2000, Anglo purchased from an independent third party the remaining 30% minority stake held in the Niobium Business, which owns mineral rights that are utilised by the Phosphates Business. As a result of this transaction, the Phosphates Business pays royalties to this third party and to the Niobium Business (at 2.275% and 1.225% respectively), both calculated based on the value of the phosphate concentrate originating from Catalão that is sold or consumed by the Phosphates Business. These royalties are included in the operating costs.

In addition, the Phosphates Business pays CFEM (state royalties), at a rate of 2% of the cost of extraction up to the point where the industrial process begins. CFEM is included in operating costs.

REVIEW OF HISTORICAL OPERATING RESULTS

		6 months ended 30 June	6 months ended 30 June (unaudited)	12 months ended 31 December		
US$ thousands	*Note*	**2016**	**2015**	**2015**	**2014**	**2013**
Revenue	4	215,543	217,929	431,117	487,035	543,793
Cost of sales	4	(150,852)	(156,798)	(294,739)	(376,163)	(414,671)
Gross profit		64,691	61,131	136,378	110,872	129,122
Selling and distribution costs	5	(1,166)	(1,222)	(2,440)	(3,211)	(695)
Administrative expenses	5	(9,761)	(15,937)	(27,453)	(41,399)	(35,190)
Other expenses	5	(6,597)	(7,621)	(16,407)	(5,231)	(13,415)
Operating (loss)/profit		47,167	36,351	90,078	61,031	79,822

Liquidity and capital resources

USD Thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
I. Cash flow from operating activities:						
Cash received from sales of goods and provision of services		228,044	221,718	469,199	526,420	588,228
Other cash receipts relating to operating activities		636	2,026	4,319	5,443	2,979
Cash payments for goods purchased and services received		(134,393)	(164,022)	(313,269)	(400,063)	(419,674)
Cash payments to and on behalf of employees		(25,698)	(28,252)	(47,639)	(71,674)	(69,336)
Payments of various types of taxes		(21,218)	(11,877)	(35,806)	(27,378)	(36,004)
Other cash payments relating to operating activities		(12)	(16)	(28)	(38)	(33)
Net cash flow from operating activities		47,359	19,577	76,776	32,710	66,160
II. Cash flows from investing activities:						
Intangible assets and other long-term assets		(12,866)	(11,974)	(25,651)	(39,546)	(32,104)
Net cash flow from investing activities		(12,866)	(11,974)	(25,651)	(39,546)	(32,104)

USD Thousands	*Note*	6 months ended 30 June 2016	6 months ended 30 June (unaudited) 2015	12 months ended 31 December 2015	2014	2013
III. Cash flows from financing activities:						
Other Cash receipts relating to financing activities		3,078	1,869	6,253	3,896	3,046
Capital Increase		–	–	–	10,000	27,500
Cash repayments of borrowings		–	–	(20,000)	–	(43,000)
Profits and settlements of interests		–	–	(10,076)	(10,499)	(7,877)
Other cash payments relating to financing activities		(935)	(1,136)	(2,258)	(1,764)	(2,893)
Net cash flow from financing activities		2,143	733	(26,081)	1,633	(23,224)
IV. Effect of foreign exchange rate changes on cash and cash equivalents		17,568	(5,502)	(15,059)	(7,519)	(7,214)
V. Net increase/(decrease) in cash and cash equivalents		54,204	2,834	9,985	(12,722)	3,618
Add: Opening balance of cash and cash equivalents		41,952	31,967	31,967	44,689	41,071
VI. Closing balance of cash and cash equivalents		96,156	34,801	41,952	31,967	44,689
– Pro-forma land acquisition		–	–	(462)	(689)	(776)
VII. Pro Forma closing balance of cash and cash equivalents		96,156	34,801	41,490	31,278	43,913

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Phosphates Business' cash balance was USD44.7 million, USD32.0 million, USD42.0 million and USD96.2 million respectively. Cash and cash equivalents mainly comprise short term BRL-denominated investment funds indexed to local interest rates.

Cash flow from operating activities

The increase in net operating cash inflows in 2015 compared to 2014 was in line with the increase in operating profit (refer to the operating profit section).

There was a decrease in net operating cash flow in 2014 compared to 2013, as pricing and sales volumes decreased.

Cash flow from investing activities

Cash outflow from investing activities in the Relevant Period primarily related to stay-in-business capital expenditure. Higher expenditure in 2014 was due to major equipment replacement in the acid plant at Cubatão.

Cash flow from financing activities

Cash flow from financing activities relates to an intercompany loan from Capital Luxemburg. The loan is denominated in USD and the interest rate charged is based on LIBOR plus an additional margin of 80 basis points, paid on a monthly basis. This loan had a balance of USD57.5 million as at 30 June 2016 (compared to a balance of USD77.5 million as at 30 June 2015) which will be assigned to Group by Anglo and will then be repaid.

Gearing Ratio

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Phosphates Business' gearing ratio (total liabilities over total assets) was 39%, 40%, 40% and 37%, respectively.

The gearing ratio as at 30 June 2016 decreased slightly compared to prior years as a result of a decrease in borrowings of USD10 million between 30 June 2016 and 31 December 2013 coupled with an increase in assets driven by an increase in cash balance as mentioned in the liquidity and capital resources section of this document.

COMMITMENTS

Material acquisition and disposal

During the Relevant Period, no material acquisition or disposal of subsidiaries occurred within the Phosphates Business.

Future plans for material investment in capital assets

During the Relevant Period, the Phosphates Business did not have any future plans for material investment in capital assets. The Phosphates Business has a number of options for future growth, but at present there is no approved plan for future material investment.

Capital Commitments

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Phosphates Business' capital commitments were USD0.3 million, USD5.2 million, USD2.0 million and USD7.4 million, respectively, for services that had been contracted but not provided for.

Other Commitments

Other commitments are principally comprised of an operating lease related to vehicles (refer to note 18 of the financial statements).

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Phosphates Business' operating leases were USD1.7 million, USD1.5 million, USD0.7 million and USD0.5 million, respectively.

CONTINGENT LIABILITIES

The Phosphates Business is subject to various claims and, following appropriate legal advice where the risk of loss is assessed, a provision is raised if it is believed that a loss is probable (refer to note 16 of the financial statements). However, if the chance of loss is considered only possible, no provision is raised.

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the amount of possible claims where no provision was raised was USD6.1 million, USD42.8 million, USD42.5 million and USD51.3 million, respectively.

REMUNERATION OF EMPLOYEES, REMUNERATION POLICIES, BONUS AND SHARE OPTION SCHEMES

For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the Phosphates Business' total employee remuneration was USD88.8 million, USD84.2 million, USD66.9 million and USD36.2 million, respectively.

Employees are located in Brazil. For each of the three years ended 31 December 2013, 2014, 2015 and the six months ended 30 June 2016, the average number of employees excluding contractors was respectively 1,283, 1,255, 1,195 and 1,361.

In the Relevant Period, a group-wide bonus arrangement was operated. For Brazilian employees, this took the form of a profit distribution scheme, in line with agreements with the local unions representing the employees. In addition, each year certain directors and managers participate in a deferred bonus arrangement (DBA) under which shares of Anglo are granted as bonuses subject to a continued employment during a defined period. Dividend equivalents are payable on such bonus shares during the deferral period.

For each of the three years ended 31 December 2013, 2014 and 2015, the value distributed in shares (based on the USD market value on date of award) were USD1.8 million, USD1.3 million and USD0.5 million, respectively.

EXPOSURE TO FLUCTUATION IN EXCHANGE RATES

Substantially all of the Phosphates Business' sales are denominated in BRL (although generally linked to USD benchmark pricing for most products) as well as a majority of operating costs. The intercompany loan with Capital Luxemburg (refer to Cash flow from financing activities section) is denominated in USD, however due to the functional currency being BRL, the loan is revalued from USD to BRL with the foreign exchange gain/loss reflected in the income statement within finance results and then reconverted back to USD for presentation purposes (with the corresponding entry included in reserves).

A. *The following is the text of a report received from the reporting accountants, Deloitte Touche Tohmatsu Certified Public Accountants LLP, prepared for the purpose of incorporation in the circular in respect of Pro Forma Financial Information*

Deloitte.
德勤

Independent reporting accountants' assurance report on the compilation of pro forma financial information

To the Directors of China Molybdenum Co., Ltd.

We have completed our assurance engagement to report on the compilation of pro forma financial information of China Molybdenum Co., Ltd. (the "Company") and its subsidiaries (hereinafter collectively referred to as the "Group") by the directors of the Company (the "Directors") for illustrative purposes only. The pro forma financial information consists of the pro forma consolidated statement of financial position as at 30 June 2016 and related notes as set out on pages IV-5 to IV-11 of the circular issued by the Company dated 8 September 2016 (the "Circular") in connection with the Proposed Transation (as defined in the Circular). The applicable criteria on the basis of which the Directors have compiled the pro forma financial information are described on page IV-4 of the Circular.

The pro forma financial information has been compiled by the Directors to illustrate the impact of the Proposed Transaction on the Group's financial position as at 30 June 2016 as if the Propsed Transaction had taken place at 30 June 2016. As part of this process, information about the Group's financial position has been extracted by the Directors from the Group's financial statements for the six months ended 30 June 2016, on which no auditor's report or review conclusion has been published.

Directors' Responsibilities for the Pro Forma Financial Information

The Directors are responsible for compiling the pro forma financial information in accordance with paragraph 4.29 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") and with reference to Accounting Guideline 7 "Preparation of Pro Forma Financial Information for Inclusion in Investment Circulars" ("AG 7") issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA").

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the "Code of Ethics for Professional Accountants" issued by the HKICPA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies Hong Kong Standard on Quality Control 1 "Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements" issued by the HKICPA and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Reporting Accountants' Responsibilities

Our responsibility is to express an opinion, as required by paragraph 4.29(7) of the Listing Rules, on the pro forma financial information and to report our opinion to you. We do not accept any responsibility for any reports previously given by us on any financial information used in the compilation of the pro forma financial information beyond that owed to those to whom those reports were addressed by us at the dates of their issue.

We conducted our engagement in accordance with Hong Kong Standard on Assurance Engagements 3420 "Assurance Engagements to Report on the Compilation of Pro Forma Financial Information Included in a Prospectus" issued by the HKICPA. This standard requires that the reporting accountants plan and perform procedures to obtain reasonable assurance about whether the Directors have compiled the pro forma financial information in accordance with paragraph 4.29 of the Listing Rules and with reference to AG 7 issued by the HKICPA.

For purposes of this engagement, we are not responsible for updating or reissuing any reports or opinions on any historical financial information used in compiling the pro forma financial information, nor have we, in the course of this engagement, performed an audit or review of the financial information used in compiling the pro forma financial information.

The purpose of pro forma financial information included in an investment circular is solely to illustrate the impact of a significant event or transaction on unadjusted financial information of the Group as if the event had occurred or the transaction had been undertaken at an earlier date selected for purposes of the illustration. Accordingly, we do not provide any assurance that the actual outcome of the event or transaction at 30 June 2016 would have been as presented.

A reasonable assurance engagement to report on whether the pro forma financial information has been properly compiled on the basis of the applicable criteria involves performing procedures to assess whether the applicable criteria used by the Directors in the compilation of the pro forma financial information provide a reasonable basis for presenting the significant effects directly attributable to the event or transaction, and to obtain sufficient appropriate evidence about whether:

- the related pro forma adjustments give appropriate effect to those criteria; and
- the pro forma financial information reflects the proper application of those adjustments to the unadjusted financial information.

The procedures selected depend on the reporting accountants' judgment, having regard to the reporting accountants' understanding of the nature of the Group, the event or transaction in respect of which the pro forma financial information has been compiled, and other relevant engagement circumstances.

The engagement also involves evaluating the overall presentation of the pro forma financial information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion:

(a) the pro forma financial information has been properly compiled on the basis stated;

(b) such basis is consistent with the accounting policies of the Group; and

(c) the adjustments are appropriate for the purposes of the pro forma financial information as disclosed pursuant to paragraph 4.29(1) of the Listing Rules.

Deloitte Touche Tohmatsu Certified Public Accountants LLP
Shanghai China
8 September 2016

B. PRO FORMA FINANCIAL INFORMATION OF THE ENLARGED GROUP

The pro forma financial information presented below is prepared to illustrate the consolidated financial position of the Enlarged Group as if the Proposed Transaction had been completed on 30 June 2016.

This pro forma financial information has been prepared for illustrative purposes only and because of its hypothetical nature, it may not give a true picture of the consolidated financial position of the Enlarged Group as at 30 June 2016 or at any future date had the Proposed Transaction been completed on 30 June 2016.

The pro forma financial information is prepared based on the unaudited consolidated statement of financial position of the Group as at 30 June 2016 extracted from the unaudited consolidated financial statements of the Group for the six months ended 30 June 2016 prepared under the Accounting Standards for Business Enterpries ("ASBE"), after giving effect to the pro forma adjustments described in the accompanying notes and was prepared in accordance with Rules 4.29 and 14.67(6)(a)(ii) of the Listing Rules.

		Unaudited Pro Forma Adjustments										
	Unaudited consolidated statement of financial position of the Group as at 30 June 2016	Audited combined statement of financial position of Niobium Business as at 30 June 2016		Audited statement of financial position of Phosphates Business as at 30 June 2016		Excluded assets and liabilities as at 30 June 2016	Payment for purchase consideration	Assumption of capital loans	Recognition of contingent assets and liabilities	Recognition of intangible assets	Recognition of transaction costs	Unaudited pro forma consolidated statement of financial position of the Enlarged Group as at 30 June 2016
	RMB'000	*US$'000*	*RMB'000 equivalent*	*US$'000*	*RMB'000 equivalent*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*
	(Note 1)		*(Note 1)*	*(Note 1)*	*(Note 1)*	*(Note 3)*	*(Note 2)*	*(Note 4)*	*(Note 5)*	*(Note 6)*	*(Note 7)*	
Current assets:												
Bank and cash balances	13,855,662	68,870	456,691	96,156	637,630	–	(11,442,591)					3,507,392
Note receivables	1,386,442	–	–	–	–	–						1,386,442
Accounts receivable	499,420	20,991	139,196	69,638	461,784	(139,196)						961,204
Prepayments	485,960	–	–	4,123	27,340	–						513,300
Interests receivable	91,498	–	–	–	–	–						91,498
Dividends receivable	44,100	–	–	–	–	–						44,100
Other receivables	84,519	3,943	26,147	–	–	511						111,177
Inventories	466,281	59,050	391,572	79,015	523,964	–						1,381,817
Other current assets	1,554,472	2,140	14,192	–	–	(5,862)			157,366			1,720,168
Total current assets	18,468,354	154,994	1,027,798	248,932	1,650,718							9,717,098
Non-current assets:												
Available-for-sale financial assets	2,724,133	–	–	–	–	–						2,724,133
Long-term equity investment	1,220,893	–	–	–	–	–						1,220,893
Fixed assets	4,291,785	538,592	3,571,511	159,537	1,057,922	(59,535)						8,861,683
Construction in progress	670,646	4,958	32,877	15,850	105,105	–						808,628
Biological assets	–	–	–	2,135	14,158	–						14,158
Inventories	285,529	–	–	–	–	–						285,529
Intangible assets	3,845,284	141,086	935,569	1,927	12,778	–				5,164,409		9,958,040
Long-term deferred expenses	120,257	–	–	–	–	–						120,257
Deferred tax assets	378,297	8,397	55,682	–	–	(15,020)						418,959
Other non-current assets	2,329,218	16,362	108,500	39,627	262,775	–						2,700,493
Total non-current assets	15,866,042	709,395	4,704,139	219,076	1,452,738							2,711,773
Total assets	34,334,396	864,389	5,731,937	468,008	3,103,456							36,829,871

		Unaudited Pro Forma Adjustments										
	Unaudited consolidated statement of financial position of the Group as at 30 June 2016	Audited combined statement of financial position of Niobium Business as at 30 June 2016		Audited statement of financial position of Phosphates Business as at 30 June 2016		Excluded assets and liabilities as at 30 June 2016	Payment for purchase consideration	Assumption of capital loans	Recognition of contingent assets and liabilities	Recognition of intangible assets	Recognition of transaction costs	Unaudited pro forma consolidated statement of financial position of the Enlarged Group as at 30 June 2016
	RMB'000	*US$'000*	*RMB'000 equivalent*	*US$'000*	*RMB'000 equivalent*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*
	(Note 1)		*(Note 1)*	*(Note 1)*	*(Note 1)*	*(Note 3)*	*(Note 2)*	*(Note 4)*	*(Note 5)*	*(Note 6)*	*(Note 7)*	
Current liabilities:												
Short-term borrowings	2,362,588	–	–	–	–	–						2,362,588
Financial liabilities measured at the fair value through profits and losses	1,636,359	–	–	–	–	–						1,636,359
Notes payable	830,000	–	–	–	–	–						830,000
Accounts payable	167,356	17,315	114,819	24,390	161,735	–						443,910
Receipts in advance	59,886	–	–	–	–	–						59,886
Employee benefits payable	106,499	12,482	82,771	13,680	90,715	–						279,985
Tax payable	(93,156)	–	–	10,518	69,747	–						(23,409)
Interest payable	150,876	–	–	–	–	–						150,876
Dividends payable	450,066	–	–	–	–	–						450,066
Other payable	247,611	1,816	12,042	25,216	167,212	(3,263)					152,952	576,554
Non-current liabilities due within one year	2,389,009	–	–	–	–	–						2,389,009
Other current liabilities	1,039,056	13,488	89,442	–	–	(10,073)			105,583			1,224,008
Total current liabilities	9,346,130	45,101	299,074	73,804	489,409							10,379,812
Non-current liabilities:												
Long-term borrowings	2,823,580	–	–	–	–	–						2,823,580
Bonds payable	4,000,000	–	–	–	–	–						4,000,000
Provision	313,582	203,260	1,347,858	36,938	244,944	–						1,906,384
Long-term loan from related parties	–	336,000	2,228,083	57,500	381,294	–		(2,609,377)				–
Other non-current liabilities	78,163	–	–	–	–							78,163
Deferred tax libilities	–	–	–	3,309	21,943	–						21,943
Total non-current liabilities	7,215,325	539,260	3,575,941	97,747	648,181							8,830,070
Total liabilities	16,561,455	584,361	3,875,015	171,551	1,137,590							19,209,882
Net assets	17,772,941	280,028	1,856,922	296,457	1,965,866							17,619,989

		Unaudited Pro Forma Adjustments										
	Unaudited consolidated statement of financial position of the Group as at 30 June 2016	Audited combined statement of financial position of Niobium Business as at 30 June 2016		Audited statement of financial position of Phosphates Business as at 30 June 2016		Excluded assets and liabilities as at 30 June 2016	Payment for purchase consideration	Assumption of capital loans	Recognition of contingent assets and liabilities	Recognition of intangible assets	Recognition of transaction costs	Unaudited pro forma consolidated statement of financial position of the Enlarged Group as at 30 June 2016
	RMB'000	*US$'000*	*RMB'000 equivalent*	*US$'000*	*RMB'000 equivalent*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*
	(Note 1)		*(Note 1)*	*(Note 1)*	*(Note 1)*	*(Note 3)*	*(Note 2)*	*(Note 4)*	*(Note 5)*	*(Note 6)*	*(Note 7)*	
Shareholders' equity:												
Share capital	3,377,440	236,297	1,566,933	188,588	1,250,565	–	(2,817,498)					3,377,440
Capital reserve	10,720,307	–	–	–	–	–						10,720,307
Other comprehensive income	(687,955)	–	–	–	–	–						(687,955)
Special reserve	47,196	–	–	–	–	–						47,196
Surplus reserves	786,050	–	–	–	–	–						786,050
Other reserve	–	11	73	(101,922)	(675,865)	–	675,792					–
Retained profit	3,076,703	43,720	289,916	209,791	1,391,166		(1,681,082)				(152,952)	2,923,751
Total shareholders' equity attributable to the parent company	17,319,741	280,028	1,856,922	296,457	1,965,866							17,166,789
Minority interests	453,200	–	–	–	–							453,200
Total shareholders' equity	17,772,941	280,028	1,856,922	296,457	1,965,866							17,619,989
Total liabilities and shareholders' equity	34,334,396	864,389	5,731,937	468,008	3,103,456							36,829,871

C. NOTES TO THE PRO FORMA FINANCIAL INFORMATION OF THE ENLARGED GROUP

1. The unaudited consolidated statement of financial position of the Group is extracted from the interim report of the Company for the six months ended 30 June 2016 prepared under ASBE. The audited statements of financial position of Niobium and Phosphates Businesses are extracted from the accountants' reports which have been prepared under International Financial Reporting Standards and using accounting policies materially consistent with those of the Company as set out in Appendix IIA for Niobium Business and Appendix IIB for Phosphates Business, respectively, to this Circular, with certain reclassifications being made to be in line with the presentation of the financial statements of the Company where appropriate, and translated to Renminbi ("RMB") at relevant rate as explained below.

The financial information of Niobium Business in Appendix IIA are presented in United States Dollars ("US$"), being the functional currency of the reporting entity, which is different from the presentation currency of the Group, i.e. RMB. The financial information of Phosphates Business in Appendix IIB are presented in US$, which is also different from the presentation currency of the Group, i.e. RMB. The assets and liabilities of Niobium Business and Phosphates Business are translated into RMB at the exchange rate at 30 June 2016 of US$1 to RMB6.63, being the closing exchange rate as at 30 June 2016, published by People's Bank of China. No representation is made that any amount in US$ could be or could have been converted to RMB at the relevant date at that rate or at all.

2. Pursuant to the Sales and Purchase Agreement (the "Agreement"), the Group is to acquire: (1) the entire issued share capitals of Anglo American Fosfatos Brasil Limitada ("AAFB") and Anglo American Nióbio Brasil Limitada ("AANB"), respectively; (2) the niobium marketing and sales function ("Niobium Sales Function") of Anglo American Marketing Limited ("AAML"); and (3) the assumption of rights in respect of the Capital Loans, for an aggregate cash consideration of US$1,500 million (equivalent to approximately RMB9,947 million) ("Cash Consideration"), and adjusted by the estimated closing cash balance, the estimated closing indebtedness and the estimated closing working capital adjustment as specified in the Agreement (collectively, the "Purchase Price Adjustment").

   The Purchase Price Adjustment is subject to change upon the completion of the Proposed Acquisition.

   For the purpose of pro forma financial information, the Purchase Price Adjustment estimated by the Directors of the Company amounted to US$226 million (equivalent to RMB1,496 million), including an upward of the closing cash balance of US$165 million (equivalent to RMB1,094 million), the closing working capital adjustment of US$62 million (equivalent to RMB411 million) and a downward of the closing indebtedness of US$1 million (equivalent to RMB9 million) as at 30 June 2016. The adjusted purchase consideration is therefore US$1,726 million (equivalent to RMB11,443million) ("Purchase Consideration").

3. Pursuant to the Agreement, the assets and liabilities of Niobium Sales Function to be transferred to the Company upon the Completion include: (i) the aggregate amount of ferroniobium owned by AAML as at Completion; (ii) all contracts, undertakings, arrangements and agreements entered into by AAML to sell niobium; and (iii) certain employees of AAML. The Directors of the Company represented that it is agreed that the assets and liabilities attributed to Niobium Sales Function other than those stipulated in the Agreement will not be transferred.

Accordingly, for the purpose of the pro forma consolidated statement of financial position, the respective balances of the assets and liabilities derived from the accounting records of Niobium Sales Function as at 30 June 2016, which do not fall into the scope mentioned above, are excluded (the "Excluded Assets and Liabilities"). The amounts of Excluded Assets and Liabilities are subject to change and will be finalised upon Completion of the Proposed Transaction.

4. This represents the contractual rights assumed upon Completion of the Proposed Transaction in respect of the Capital Loans which were outstanding as at 30 June 2016.

5. For the purpose of the pro forma financial information, the Company recognises a fair value of contingent liabilities amounting to US$16 million (equivalent to RMB106 million) expected to be assumed for the Proposed Transaction in respect of the outstanding legal claims relating to tax, labour and other civil matters as at 30 June 2016 where outflow of resources embodying economic benefits is not probable, which is based on the assessment of the Directors of the Company. In the opinion of the Directors of the Company, the fair values of the contingent liabilities being assumed are subject to changes upon Completion of the Proposed Transaction because the status of the outstanding legal claims may change and the fair values of such contingent liabilities will be assessed on the date of Completion. Therefore, the final fair values of contingent liabilities of Niobium and Phosphates Businesses resulting from such business acquisition on the date of Completion may be materially different from that assessed by the Directors of the Company as at 30 June 2016 as shown above for illustration purposes only.

   Pursuant to the Agreement, Anglo American PLC agrees to compensate the Company all forms of taxation (including relevant fines, penalties, charges and interest) payable or suffered by the Niobium and Phosphates Businesses in respect of the transactions occurring or deemed to have occurred on or before the Completion of Proposed Transaction, except for those payables being taken into account in the closing working capital adjustment of Purchase Price Adjustment. Such compensation is regarded as indemnification assets in accordance with ASBE No. 20 – "Business Combination". For the purpose of the pro forma financial information, the Directors of the Company recognise the indemnification assets as other current assets amounting to US$23 million (equivalent to RMB157 million) upon Completion on the same basis as the relevant contingent liabilities recognised in the statement of financial position, including an indemnification assets of US$7million (equivalent to RMB51 million) for the relevant provision recognised in the statement of financial position of the Niobium and Phosphates Businesses and an indemnification assets of US$16million (equivalent to RMB106 million) for the relevant contingent labilities assumed up the Proposed Transaction, as detailed above.

Since the relevant contingent liabilities assumed are subject to changes upon Completion of the Proposed Transaction, the final indemnification assets to be recognised on the date of Completion may be materially different from that assessed by the Directors of the Company as at 30 June 2016 as shown above for illustration purposes only.

6. The adjustment in this note represents the recognition of excess of total consideration over the fair value of the assets of the Niobium and Phosphates Businesses acquired as intangible assets (which mainly comprise mining rights) held by Niobium and Phosphates Businesses as at 30 June 2016.

Pursuant to ASBE No. 20 – "Business Combination", the Proposed Transaction is expected to be accounted for as acquisition of business using the acquisition accounting and purchase price allocation as at the date when the Group obtain control over the Niobium and Phosphates Businesses. However, as at 30 June 2016 and as at the date of this report, purchase price allocation pursuant to ASBE No. 20 – "Business Combination" has not yet been performed. For simplicity and for the purpose of this unaudited pro forma financial information, the Directors of the Company had assumed that the carrying amount of the assets and liabilities of Niobium and Phosphates Businesses as at 30 June 2016 approximate to their respective fair values at the date of the Completion. Also, it is assumed that there are no other identifiable assets and liabilities (including contingent liabilities, except as those stated in note 5 above) other than intangible assets, which mainly comprises mining right over the mines controlled by Niobium and Phosphates Businesses, which is calculated as the excess of aggregated consideration (including Cash Consideration and Purchase Price Adjustment) over the fair value of the identifiable assets acquired and liabilities assumed as at 30 June 2016. In the opinion of the Directors of the Company, the fair values of related assets acquired and liabilities assumed are subject to changes upon Completion of the Proposed Transaction because the fair values of the assets acquired and liabilities assumed shall be assessed on the actual date of the completion. Therefore, it is impracticable to reliably estimate any actual or estimated fair values of the assets and liabilities of Niobium and Phosphates Businesses being acquired/assumed in the unaudited pro forma financial information.

For the purpose of the Proposed Transaction, the Company will set up an entity in Brazil which will acquire the whole issued share capitals of AAFB and AANB. The Directors of the Company are of the opinion that the fair value of the intangible assets recognised by the Brazilian entity upon the Completion of the Proposed Transaction is tax deducible in accordance with the tax rules in Brazil. Therefore no deferred taxation is recognised for the intangible assets when preparing the pro forma financial information.

The calculation of the identifiable net assets of the Niobium and Phosphates Businesses and the intangible assets arising from the Proposed Transaction are as follows:

	RMB'000
Net assets recognised by the Vendors in the accounting records of the Niobium and Phosphates Businesses as at 30 June 2016 *(note 2)*	3,822,788
Add: Capital Loans *(note 4)*	2,609,377
Contingent assets and liabilities recognised – net *(note 5)*	51,783
Less: Excluded Assets and Liabilities *(note 3)*	(205,766)
Add: Intangible assets	5,164,409
Fair value of identifiable net assets	11,442,591
Purchase consideration *(note 2)*	11,442,591
Less: Fair value of identifiable net assets	(11,442,591)
Goodwill	–

7. This represents the transaction costs expected to be incurred in connection of the Proposed Transaction, among which, there is a Brazilian Finance Tax of approximately US$5 million (equivalent to RMB33 million) charged at 0.38% upon the proportion of cash consideration paid in relation to the acquisition of equity interests of AAFB and AANB, in accordance with the tax rules in Brazil.

Executive Summary

CMOC Mining Pty. Ltd.
Suite 2001, Goldfields House
1 Alfred Street
Sydney 2000, NSW Australia

Runge Pincock Minarco

Runge, Inc. dba
RungePincockMinarco

6251 Greenwood Plaza
Blvd., Suite 275

Greenwood Village,
CO 80111

8 September, 2016

RE: Competent Person Report

Dear Sirs,

Runge, Inc. dba RungePincockMinarco ("RPM") has been engaged by CMOC Mining Pty. Ltd. on behalf of China Molybdenum Company Limited (HK3993) jointly referred to as ("CMOC" or "the Clients") to undertake an Independent Technical Review ("ITR") and compile a Competent Person Report ("CPR" or the "Report") (as defined by Chapter 18 of the Rules Governing the Listing Rules of the Stock Exchange of Hong Kong (the "Listing Rules") on the Niobium and Phosphate Project (the "Project"). The Project located in Brazil (***Figure 1-1***) is currently owned and operated by Anglo American plc. (the "Company") through wholly owned subsidiaries and is considered a world class vertically integrated niobium and phosphate business. The business mines, processes and manufactures market ready ferroniobium and a myriad of fertilizer products for international and domestic demand respectively. The Project has been in continuous production for over 40 years with well-established and integrated mining, concentration and manufacturing infrastructure which is interconnected with both road and rail networks and serviced by a deep water port facility.

The Client has conditionally agreed to acquire the Project through the acquisition of the issued share capital of subsidiaries of the Company. The process and conclusions of the ITR are presented in the CPR which will be included in the Circular of the Client in relation to the transaction in accordance with Chapter 18 of the Listing Rules.

The statements of Mineral Resources and Ore Reserves (as defined in ***Appendix B***) have been reported to be in accordance with the recommended guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves JORC Code (2012 Edition)

RPM's technical team ("the Team") consisted of International Competent Person's, International Senior Consultants, Executive Mining Engineers and Senior Geologists with significant Latin American mining experience. RPM's Hong Kong Competent Person was responsible for compiling or supervising the compilation of the Report and the JORC reported Statements of Mineral Resources and Ore Reserves, stated within. The Team's qualifications and experience is detailed in ***Annexure A*** for reference.

A site visit was conducted by members of the Team to the Project's operations to familiarise themselves with the Project characteristics. The site visit was undertaken between March 14th and March 17th, 2016 by Mr. Tim Swendseid, Mr. Esteban Acuña, Mr. Richard Addison, Mr. Pedro Repetto and Mr. João Abud. During the site visits the Team inspected the mine, the ore processing plant, the tailings storage facility, the water supply system, the power distribution system, the chemical manufacturing centers, and conducted general inspections of the Project area. The visit was also used to gain a better understanding of the Project status. the Team had open discussions with the Company's personnel on technical aspects relating to the relevant issues. The Company's personnel were cooperative and open in facilitating RPM's work.

In addition to work undertaken to generate independent JORC Mineral Resources and Ore Reserves estimates, the CPR relies largely on information provided by the Company, either directly from the sites and other offices, or from reports by other organizations whose work is the property of the Company or its subsidiaries. The data relied upon for the JORC Mineral Resources and Ore Reserves estimates independently completed by RPM have been compiled primarily by the Client and the Company and subsequently reviewed and verified as well as reasonably possible by RPM. The CPR is based on information made available to RPM as at 8 September, 2016. The Client or the Company has not advised RPM of any material change, or event likely to cause material change, to the underlying data, designs or forecasts since the date of asset inspections.

Project Summary

- The Project is considered a world class vertically integrated niobium and phosphate business which mines, processes and manufactures market ready ferroniobium and a myriad of fertilizer products. The Company is one of three current major niobium producers both globally and domestically whom produce a single ferroniobium product (65% Nb) sold to international markets, while a myriad of fertilizer products are produced which can be customized and quantities varied based on domestic market conditions.
- Contained within a series of mining and exploration licenses the Project consists of a number of large scale niobium and phosphate deposits. Phosphate mineralisation typically occurs near surface in extensive tabular horizontal zones up to 80m thick. The niobium mineralisation is located in the same geological setting to the emplacement of the phosphate mineralisation and occurs both associated with the horizontal phosphate zones as well as in vertical pipe like bodies which have been defined up to 600m in depth.
- Mining is currently undertaken via conventional open pit methods within two areas (Catalão Complex I and II) which are supported by various processing plants which produce the products. The niobium operation consists of three operating floatation concentrators which are currently fed from two sources, the Boa Vista open pit (oxide and fresh rock), located 25km from the three Catalão Concentrators (Catalão Complex I) and tails material from the phosphate concentrators. Combined, the three concentrators have a throughput capacity of 3.1 dry million tonnes per annum ("mtpa") run of mine ("ROM"), which produce concentrate which are feed into a single leach and pyro-metallurgical plant located adjacent. This plant produces approximately 13 kilo tonnes per annum ("ktpa") of ferroniobium which is transported via trucks 750 km to the Santos port for shipment to international markets including Europe and Asia.
- The phosphate operations consists of two floatation concentrators which combined have a throughput rate of 5.8 mtpa ROM. Feed for the plants is oxide material from the adjacent Chapadão pit. The concentrators, produce a slurry concentrate which is pumped via a 7 km pipeline to the separating station within the Catalão Fertilizer plant. This station separates the fines and coarse materials within the slurry, all fines and 45% of the coarse material are fed directly to the Catalão Fertilizer Plant, the remaining 55% coarse material is transported 750km via rail to the Cubatão Fertilizer Plant.
- Supporting regional and local infrastructure for the Project is well established and has ample capacity for the continued support of the planned LOM operation. The Project is located about 15 km northeast of the small cities of Catalão and Ouvidor, and the major city of Uberlândia which is 115 km south of Catalão. These cities provide suitable accommodation and supporting industries for the operations. Below is a description of the major infrastructure requirements of the Project. RPM considers the infrastructure appropriate and in good condition with the only area of concern being the long-term supply of fresh water. Alternatives for assuring long-term water supply are currently in progress.

Mineral Resource and Ore Reserves Estimates

- The review undertaken by RPM of the drilling and sampling procedures indicates that international standard practices were generally utilised with no material issues being noted by RPM in the checks completed. The QAQC samples all showed suitable levels of precision and accuracy to enable confidence in the primary laboratory. RPM also notes that the samples used for the resource estimation are derived from drilling post 2005. Furthermore, RPM considers that the post 2005 data which underpins the resource estimation has no material sample bias and is representative of the samples taken.
- The independent Statement of Mineral Resources is reported within the current mining and exploration licenses and as at 31st March, 2016 using a variety of cut-off grades. Open Pit Mineral resources were constrained by topography and within economic pits estimated with Measured, Indicated and Inferred resources based on prices of USD 320.72 per tonne phosphate and USD 40.93 per kg Nb. Metallurgical recoveries and costs utilised to generate the pit were the same as those utilised for the Ore Reserve estimates as outlined in ***Section 8*** and ***Section 9***. Underground resources of Boa Vista, Mina II and Area Leste were constrained with a sublevel stope design based on mining cost of USD 33 per tonne and process cost and metallurgical recoveries as used for open pit designs. ***Section 7*** outlines additional information regarding the cut of grade and reporting of the quantities.

- The Statement of Mineral Resources for both Niobium and Phosphate are summarised in ***Table 1*** and graphically in ***Figure 1*** is reported inclusive of and is not additional to the Ore Reserves reported in ***Table 2*** and are consider to include ore loss and dilution.

Table 1 Statement of JORC Mineral Resources by Element as at 30st June, 2016 Reported at various Cut-off grades.

Complex	Project	Material Type	Cut-off (%)	Category	Quantity (Mt)	Nb_2O_5 (%)	P_2O_5 (%)	Nb_2O_5 (kt)	P_2O_5 (kt)
Catalão I	Chapadão	Oxide	6	Measured	75.3		13.2		10,000
				Indicated	226.5		11.9		27,000
				Inferred	65.1		9.9		6,500
				Sub-Total	366.8		11.8		43,400
	Mina I	Oxide	0.5	Measured					
				Indicated	7.9	0.97		76.6	
				Inferred	5.5	0.92		50.6	
				Sub-Total	13.4	0.95		127.2	
	Mina II	Fresh Rock OP	0.5	Measured	0.1	1.19		1.1	
				Indicated	3.2	1.19		37.7	
				Inferred	2.6	1.06		27.8	
				Sub-Total	5.9	1.13		66.7	
		Fresh Rock UG	0.67	Measured					
				Indicated					
				Inferred	2.2	1.07		23.2	
				Sub-Total	2.2	1.07		23.2	
		All		Total	8.1	1.12		89.9	
	Area Leste	Oxide	0.67	Measured					
				Indicated					
				Inferred	2.7	1.07		28.9	
				Sub-Total	2.7	1.07		28.9	
		Fresh Rock UG		Measured				0	
				Indicated				0	
				Inferred	13	1.22		158	
				Sub-Total	13	1.22		158	
		All		Total	15.7	1.19		186.9	
Catalão II	Boa Vista	Oxide	0.5	Measured	0.3	0.86		2.4	
				Indicated	0.1	0.74		1	
				Inferred	1.3	0.83		10.8	
				Sub-Total	1.7	0.83		14.2	
		Fresh Rock OP		Measured				0	
				Indicated	27.1	0.95		258	
				Inferred	13.1	1.06		138.2	
				Sub-Total	40.2	0.99		396.1	
		Fresh Rock UG	0.58	Measured					
				Indicated	0.2	0.89		1.5	
				Inferred	6.3	1.24		78	
				Sub-Total	6.5	1.23		79.5	
		All		Total	48.4	1.01		489.9	
Phosphate Tailings		na	na	Measured	30.8	30.8	0.7		215.6

1. *The Statement of JORC Mineral Resources has been compiled under the supervision of Mr. Esteban Acuña who is a full-time employee of RPM and a Registered Member of the Chilean Mining Commission. Mr. Acuña has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.*
2. *All Mineral Resources figures reported in the table above represent estimates at 30th June, 2016. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.*
3. *Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).*

Figure 1 Graphical Representation of JORC Mineral Resources quantities as at 30th June, 2016

Note: Figure excludes the Tails Material

- The Independent Statement of Ore Reserves for the Project is estimated as at the 30th June, 2016 by RPM and reported in accordance with the JORC Code. RPM has determined suitable technical parameters to apply in the Ore Reserve estimation process following review of site data and technical information contained with studies of at least a pre-feasibility level of confidence. Further information taken into consideration included the proposed life of mine plans, mining method, forecast processing plant recoveries and tailings storage facility capacities. The Ore Reserves were derived only from areas of the Project where Measured and Indicated Resources have been estimated.
- The Proved and Probable JORC Ore Reserves estimate for the Project is summarized in ***Table 2*** and shown graphically in ***Figure 2***. The JORC Ore Reserves estimates reported below are included in the Measured and Indicated Mineral Resources quantities reported in ***Section 7***. RPM has estimated the total in situ Niobium Ore Reserves to be approximately **35.1 Mt** at an average grade of 0.92 % Nb_2O_5, comprising **502 Kt** of Proved and **34.5 Mt** of Probable Ore Reserves while an additional **30.8 Mt** at 0.7% in the Proved category is contained within the Tails material. Similarly, RPM has also estimated the total Phosphate Ore Reserves to be approximately **208.9 Mt** at an average grade of 12.3 % P_2O_5 comprising **56.2 Mt** of Proved and **152.6 Mt** of Probable Ore Reserves.

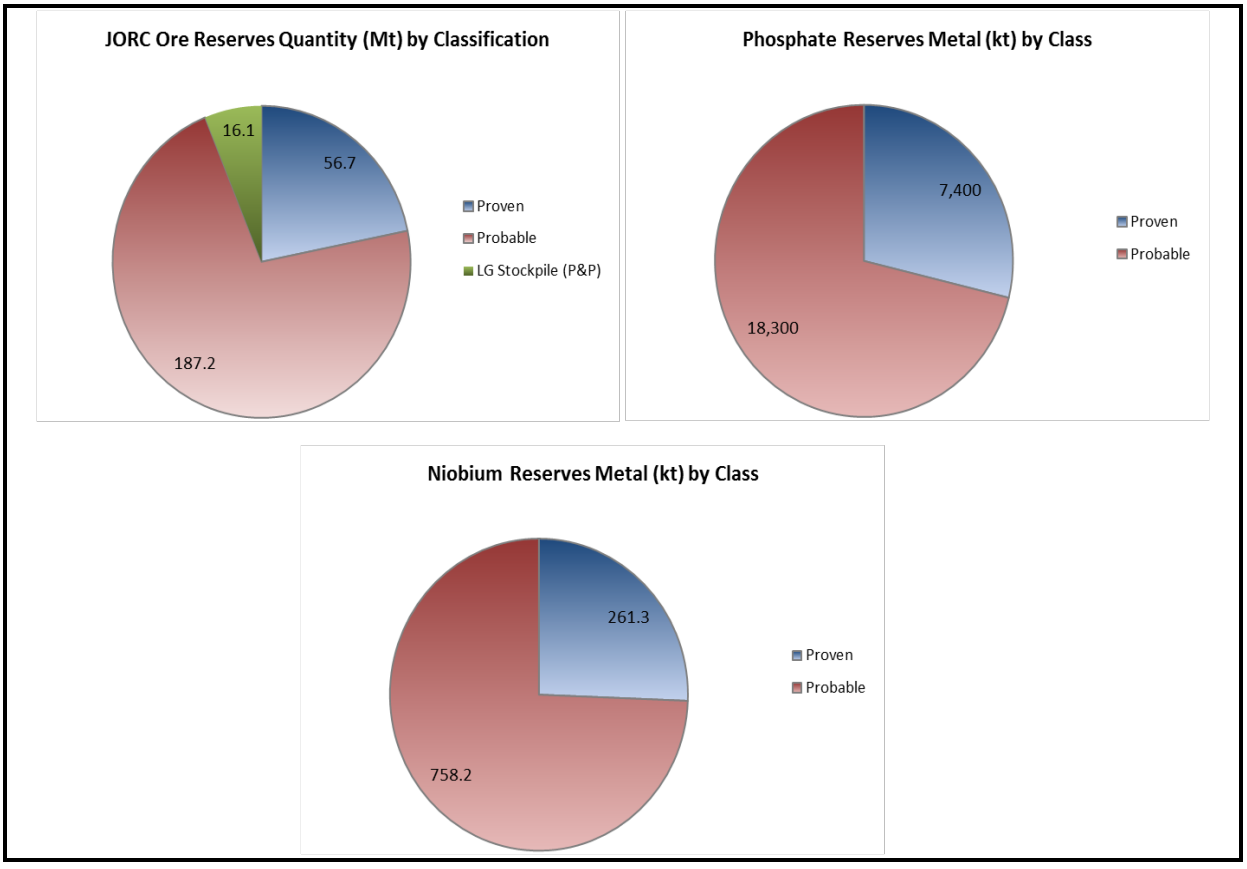
Table 3 Statement of JORC Ore Reserves Estimate within the Final Pit Designs as at 30th June 2016

Description	Quantity (kt)	P_2O_5 %	P_2O_5 (kt)	Nb_2O_5 %	Nb_2O_5 (Metal kt)
Niobium Ore					
Proved	0.5	-	-	0.90	6.12
Probable	34.5	-	-	0.92	327.8
Sub Total	35.1	-	-	0.92	327.9
Phosphate Ore					
Proved	56.2	13.2	7,600		
Probable	152.6	12.0	18,300		
Sub Total	208.9	12.3	26,000		
LG Stockpile (P&P)					
Niobium Ore	6.4	-	-	0.40	25.9
Phosphate Ore	9.7	10.2	1,000	0.23	22.7
Sub Total	16.1	6.1	1,000	0.30	48.6

Notes:

1. *The Statement of JORC Ore Reserves has been compiled under the supervision of Mr. Rondinelli Sousa who is a full time Senior Mining Engineer employed by RPM and is a Member of the American Society of Mining, Metallurgy & Exploration (SME). Mr. Sousa has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the JORC Code.*
2. *Tonnages are metric tonnes*
3. *Cutoff grade of 16.49% P_2O_5 mass recovery applied to the phosphate ore*
4. *Cutoff grade of 0.50% Nb_2O_5 applied to all ore types*
5. *Figures reported are rounded which may result in small tabulation errors. Ore Reserves have been estimated under the 2012 Edition of the JORC Code*

Figure 2 Graphical Representation JORC In Situ Ore Reserves Estimate within the Final Pit Designs



Note: Figure excludes the Tails Material

- In addition to the above reserve quantities, **30.8 Mt at 0.7%** Nb_2O_5 is estimated in the Proved category as part of the JORC Ore Reserves. This Niobium resource is the fines phosphate (15% of total phosphate tails) and is processed in the tail Niobium concentrator (***Section 10***). The material is estimated based on the volume of fines produced and processed per year (1.1 Mt) and a constant grade of 0.7% based on historical production records.

Exploration Potential

RPM considers there to be potential for the identification of further bodies of economic interest within the concession area of Catalão I and II. RPM notes that the concessions held by the Company have been explored effectively using modern systematic exploration, with much of the recent exploration focusing on the currently reported Phosphate Mineral Resources and the four reported Niobium Mineral Resources, however other areas have been identified which host mineralisation of interest. As such RPM considers there to be a number of potential opportunities to increase the resource base and mine life, these include:

- Inferred material: Within the current final pit designs a total of 76.4 Mt for the phosphate and 6.2 Mt for the niobium of "inferred" Mineral Resources have been reported. Further drilling is required to upgrade this material to the Indicated class.

- Regional Niobium Exploration Targets: The mineralisation style observed within the Project commonly results in multiple separate bodies which cluster in regions occurring along or around regional intrusive bodies and/or structural planes. This is consistent with the mineralisation observed within the Project. Although the focus of the recent exploration has been on the main mineralised areas, additional priority targets have been identified by the Company which do not have sufficient verified exploration to define Mineral Resources.

Mine and Production

- All mining operations are undertaken by contractors via conventional truck and shovel open pit methods, and over the Ore Reserve Life of Mine ("LOM") ore is planned to be sourced from two separate open pits. The niobium ROM ore production is currently mined from the Boa Vista pit and fed into primary crushers located adjacent to the Boa Vista deposit at varying rates throughout the life of mine. While the Boa Vista deposit will be the single source for the first three years, the Project's production will be supplemented in Year three (2018) with ore from the Mina I and Mina II deposits which will be fed into a primary crusher located adjacent to the Chapadão deposit where those two deposits are located. The phosphate ROM ore production at the Project is planned to continue to be sourced entirely from the Chapadão pit and fed into primary crushers located adjacent to the pit within the Catalão Operations.
- Based on the Ore Reserve estimates, the pit development sequence, the mine designs, the forecast total production schedule and costs, RPM has estimated the currently defined mine life for Boa Vista to be approximately 13 years to 2028 as of 31st June, 2016, while the Chapadão Pit has a mine life of 37 years which includes the mining of Mina I and Mina II to be completed in 2038. RPM considers the proposed Life of Mine Development Sequence and Production Forecast to be reasonable and achievable based on the current mining equipment and designs; however, RPM recommends that further optimization and rescheduling of the development sequence be undertaken to maximise the profitability of the Project through optimizing the blending of ROM ore feed. This optimization should focus on implementing synergies in the mining fleet between the operations as well and ensuring consistent feed to the Niobium plants.

Processing

- The Ore-Processing facilities comprise two phosphate concentrators and three niobium concentrators all located within the Catalão Complex I operations. Ancillary plants associated with the concentrators include the phosphate filtering and drying plant and a niobium crushing and scalping plant, while the niobium leaching and pyro-metallurgical plant is located adjacent to the Niobium concentrators. The two phosphate concentrators combined have a throughput capacity of 5.8 mtpa (dry) and produce approximately 1.4 mtpa of concentrate at 37% P_2O_5. The phosphate concentrate is delivered to fertilizer plants located in the nearby town of Catalão and to the town of Cubatão located on the Brazilian coast near the port of Santos.

Niobium

- Two of the niobium concentrators currently process ore from the Boa Vista mine, namely the Boa Vista Fresh Rock Concentrator ("BVFR") and the Boa Vista ("BV") concentrator, while the third processes tailings from the phosphate concentrators ("TA"). The BVFR and BV concentrators have a throughput rate of 2 dry mpta and produce concentrate at 55% Nb_2O_5. The TA concentrator has a throughput rate of 1.1 mtpa which typically has a grade of 0.7% Nb_2O_5 and produces concentrate grading 44% Nb_2O_5. Details of the recoveries are outlined in ***Section 10.1***.
- The concentrate from the three niobium concentrators are pumped to the Leaching and Pyro-Metallurgical Plant within which the concentrates are first leached with acid and alkali, then calcined, then pyro-metallurgically processed to produce ferroniobium alloy.

Phosphate

- Ore for the two phosphate concentrators is supplied by the Chapadão mine which adjoins the plants. The concentrators are designated Plant 47 and the other Plant 76. Plant 47 was commissioned in 1976 while Plant 76 was commissioned in 2003. Given the relatively consistent style of mineralisation within the deposit, the production parameters are projected to remain reasonably stable over the mine life with the quantity of ore processed increasing slightly in conjunction with a slight drop in feed grade resulting in maintaining approximately the same concentrate production rate.
- Following production from the Phosphate concentrators, the concentrates are transported via a dedicated pipeline to a filtration plant located near the town on Catalão. As noted previously the concentrates generally consist of 20% fines and 80% coarse material. Concentrate from the slurry pipeline passes through the filtration plant and is separated into fine and coarse concentrate. Half of the coarse concentrate (37% P_2O_5) is consumed at the Catalão site and the remainder is dried and sent by rail to Cubatão. All of the fine concentrate (34% P_2O_5) is consumed at Catalão for Low Analysis fertilizer production.
- Both Fertilizer Plants comprise a number of models, each of which produce or is part of the production of a different product. The production of the various products changes dependent on the demand. As such not all modules are operating at any given point in time. Below is a description of both Fertilizer Plants.
- The Catalão Plant was built in 2002 and consists of a number of modules as outlined in ***Table 3*** and has 558 employees, 424 of whom are in operations, while an additional 416 contractors are utilised.

Table 3 Catalão Fertilizer Plant Units

Plant	Capacity	Type
Filtering plant	4,000 t/d / 1,406 ktpa	Classification with cyclones, filtering, thickening
Drying plant	2,400 t/d / 768 ktpa	Flash dryer
Sulfuric acid plant	1,645 t/d / 542 ktpa	Double-contact Double-Absorption
Turbine Generator	10MW	
Phosphoric acid	480 t/d at 51% P_2O_5 or 510 t/d at 46% P_2O_5	Dihydrate process
Acidulation (2)	1,900 t/d / 608 ktpa SSP and TSP	
Granulation (3)	2,500 t/d / 823 ktpa 0-21-0, 3-17-00, GTSP, MAP	Granulator, dryer, classification, cooling
DCP	305 t/d / 110 ktpa	Batch system

- The Cubatão Plant was built mostly in 1975 and similar to Catalão consists of a number of modules as outlined in ***Table 4*** and has 347 employees, 247 in the processing area plus 263 non-mining contractors.

Table 4 Chemical Processing Unites at Cubatão

Plant	Capacity	Type
DPG Sulfuric acid plant	1500 t/d	
Bayer SAP	500 t/d 656 ktpa	Double-contact Double-Absorption
Turbine Generator	None	
Phosphoric acid	450 t/d / 146 ktpa	Dihydrate process
Acidulation (1)	1350 t/d /392 ktpa	SSP and TSP
Granulation (1)	1000 t/d / 290 ktpa 2-18-0 (+ micros), 3-17-0, GTSP	Granulator, dryer, classification, cooling
DCP	250 t/d / 73 ktpa	Continuous system

- Due to the long history of the operations, several of the major infrastructure items including the plants and concentrators (with obvious exception of the BVFR which was recently constructed) require increased maintenance. As such the Company has developed, and is continuing to improve the plant maintenance system to ensure availability of the equipment. Of importance over the past 18 months, the Company have moved from a corrective (breakdown) maintenance strategy towards a more preventative maintenance strategy. The outcomes from these revised strategies are that the net availability of the Phosphate Plants (fertilizer plants) at Catalão and Cubatão has improved however improvement in the performance of these assets to limit down time (see details in ***Table 13-1***) is planned to be addressed in the coming years.
- Forecast Operating Costs vary between the operations and the various plants. ***Table 5*** outlines the operating costs for the operations.

Table 5 Average **Operating Costs by Operation**

Operation	Unit	LOM (Total)	Average Per year				
			2015-2020	2021-2025	2026-2035	2036-2045	2045-2052
Niobium Total	MUSD	2,401.9	133.2	149.9	76.5	37.0*	
Ouvidor Total^	MUSD	2,255.4	49.2	64.5	69.5	99.2	43.4#
Gypsum Revenue	MUSD	-78.9	-7.8	-1.6	-1.6	-2.7	-1.2#
Other Costs	MUSD	-61.8	3.4	1.3	1.4	1.5	1.0#

**Niobium Mining forecast to cease in 2041 based on RPM'swith closure costs Ore Reserves with closure costs only in 2042 and 2043*

#Phosphate Mining forecast to cease in 2052 based on RPM's Ore Reserves

^Phosphate costs include all costs to produce a dry product ready for shipment to the Fertilizer plants.

Source: Unit Costs were provided by the Company however were adjusted to reflect RPM independent Ore Reserve schedule. Annualized costs vary to the Company's due to unit costs changes and production schedule variations.

Table 6 2016 Operating Costs for Catalão and Cubatão Fertilizer Plants by Product

Fertilizer Type	2016 Cost Costs (USD/t product)
Catalão	
High Analysis*	162.4
Low Analysis	132.3
Cubatão	
Low Analysis	123.4
High Analysis*	387.1
*Phosphoric**	488.9
*Sulphuric**	74.4

**Includes DCP Product, it is noted that DCP is not regarded as a high analysis product however has been included in this aggregate form*

Source: Unit Costs Provided by the Company and utilised by RPM in the Ore Reserve Schedule.

- As the Project is a series of operating areas, limited capital development expenditure is required and the forecast CAPEX is to be used for changes to existing infrastructure to improve performance and support the planned change in ore feeds for the Niobium. The Total Capital Expenditure for the remainder of the

Reserve Mine Life for the Projects is forecast to be MUSD 14.92 which is the upgrade of the Boa Vista Oxide Concentrator to process fresh material from the Boa Vista and Mina II mine. While minimal CAPEX is required, the maintenance and upgrade of supporting infrastructure requires a total of 1.86 Billion USD sustaining capital for the remainder of the mine life. Sustained maintenance is key to ensuring performance and recoveries are achieved in the concentrators and plants. This hence forms a large portion of the sustaining capital with 331 MUSD forecast for the Niobium plants, and a combined 1.3 Billion USD for the Phosphate plants between Catalão and Cubatão. RPM notes this includes the costs of the tails dams, equipment replacement and maintenance. The remainder of the sustaining capital is for various other items including the capitalized royalty costs.

- A high level review of the environmental, health and safety indicates that the Project has a typical risk profile which is associated with projects of similar styles and maturity in the region. All required Environmental Impact Studies have been completed resulting in the approved permits and licenses being gained for planned production in the near term. RPM notes that approvals are required for future tails dam and waste dump expansions. During the site visit RPM noted that appropriate procedures are in place to manage and mitigate the associated risks and that the Company is following the required regulations of the state.

The key opportunities identified for the Project during the review are outlined below:

While various opportunities exist to increase the value of the Project, including the significant exploration potential of the Project, and short term optimization and blending, given the very long mine life RPM for reference presents below what are considered to the key opportunities which could materially affect the mine life and/or the value of the Project.

- **Inferred material:** Within the current final pit designs a total of 76.5 Mt for the phosphate and 6.2 Mt for the niobium of "inferred" Mineral Resources have been reported. These Mineral Resource have not been included in the Ore Reserves estimate as per the requirement of the JORC Code and the current Ore Reserve schedule, as presented in this Report, attributes a waste mining cost to this material with no revenue from the contained metal. RPM considers there is high likelihood that geological confidence can be increased through additional exploration or production drilling which will result in large portions of this material being upgraded to Indicated and included as part of future Ore Reserve estimates, however this is conditional on successful further exploration.
- **Chapadão Pit Expansion:** While the Ore Reserves reported by RPM are based on the final pit design provided by the Company, RPM also undertook a series of pit optimization within the Chapadão pit to determine the potential upside based on the revised classification applied by RPM. This optimization indicates there is a potential for an additional **17.6 Mt** of Measured and Indicated material within an expanded pit. RPM notes that for this material to be included in an Ore Reserve estimate, a final pit design should be undertaken followed by scheduling. RPM considers this a priority as it could directly expand the mine life by up to 4 years.

The key Risks identified during the ITR include.

While various risk have been identified, given the very long mine life, RPM presents below what are considered to be the risks that could potentially affect the Company's ability to achieve the mine life and/or the value of the Project's current Ore Reserve schedule

- **Plant Maintenance**: Due to their long production history and additional forecasted mine life, significant maintenance is required to ensure the forecast performance and recoveries is achieved by the various plants through systematic maintenance planning systems. To mitigate this risk, the Company is implementing several new systems to increase efficiencies as well as decrease the maintenance backlog. Although RPM notes this is a progressive step, more training and a pre-emptive approach to maintenance is required to minimize the likelihood of significant downtime of the plants. Further details are provided in ***Section 13***.
- **Niobium Price Fluctuations:** The market for ferroniobium is dominated by three companies of which the Company is the second largest supplier. There is a significant under capacity of supply from these three companies and any new sources or change in company production will impact supply demand balance.

RPM does note the company has a dedicated marketing and trading department in place to mitigate this risk.

Further lower category risks are presented in ***Section 15*** for reference.

Limitations and Exclusions

RPM's review was based on various reports, plans and tabulations provided by CMOC or the Company either directly from the mine site and other offices, or from reports by other organizations whose work is the property of the CMOC or the Company. Neither CMOC nor the Company has not advised RPM of any material change, or event likely to cause material change, to the operations or forecasts since the date of asset inspections.

The work undertaken for this Report is that required for a technical review of the information, coupled with such inspections as the Team considered appropriate to prepare this Report.

It specifically excludes all aspects of legal issues, commercial and financing matters, land titles and agreements, except such aspects as may directly influence technical, operational or cost issues and where applicable to the JORC Code guidelines.

RPM has specifically excluded making any comments on the competitive position of the Relevant Asset compared with other similar and competing producers around the world. RPM strongly advises that any potential investors make their own comprehensive assessment of both the competitive position of the Relevant Asset in the market, and the fundamentals of the copper, molybdenum, and gold markets at large.

Limited Liability

This Report has been prepared by RPM for the purposes of CMOC for inclusion in its Circular in respect of the proposed acquisition of the Project in accordance with the Listing Rules and is not to be used or relied upon for any other purpose. RPM will not be liable for any loss or damage suffered by a third party relying on this report or any references or extracts therefrom contrary to the purpose (regardless of the cause of action, whether breach of contract, tort (including negligence) or otherwise) unless and to the extent that RPM has consented to such reliance or use.

Responsibility and Context of this Report

The contents of this Report have been based upon and created using data and information provided by or on behalf of CMOC or the Company. RPM accepts no liability for the accuracy or completeness of data and information provided to it by, or obtained by it from CMOC, the Company or any third parties, even if that data and information has been incorporated into or relied upon in creating this report. The report has been produced by RPM in good faith using information that was available to RPM as at the date stated on the cover page and is to be read in conjunction with the circular which has been prepared and forms part of the referenced transaction.

This report contains forecasts, estimates and findings that may materially change in the event that any of the information supplied to RPM is inaccurate or is materially changed. RPM is under no obligation to update the information contained in the report.

Notwithstanding the above, in RPM's opinion, the data and information provided by or on behalf of CMOC or the Company was reasonable and nothing discovered during the preparation of this Report suggests that there was a significant error or misrepresentation of such data or information.

Indemnification

CMOC has indemnified and held harmless RPM and its subcontractors, consultants, agents, officers, directors, and employees from and against any and all claims, liabilities, damages, losses, and expenses (including lawyers' fees and other costs of litigation, arbitration or mediation) arising out of or in any way related to:

- RPM's reliance on any information provided by CMOC and the Company; or
- RPM's services or materials; or
- Any use of or reliance on these services or material,

save and except in cases of death or personnel injury, property damage, claims by third parties for breach of intellectual property rights, gross negligence, willful misconduct, fraud, fraudulent misrepresentation or the tort

of deceit, or any other matter which be so limited or excluded as a matter of applicable law (including as a Competent Person under the Listing Rules), and regardless of any breach of contract or strict liability by RPM.

Mining Unknown Factors

The findings and opinions presented herein are not warranted in any manner, expressed or implied. The ability of the operator, or any other related business unit, to achieve forward looking production and economic targets is dependent upon numerous factors that are beyond RPM's control and which cannot be fully anticipated by RPM. These factors include site specific mining and geological conditions, the capabilities of management and employees, availability of funding to properly operate and capitalise the operation, variations in cost elements and market conditions, developing and operating the mine in an efficient manner, etc. Unforeseen changes in legislation and new industry developments could substantially alter the performance of any mining operation.

Capability and Independence

RPM provides advisory services to the mining and finance sectors. Within its core expertise it provides independent technical reviews, resource evaluation, mining engineering and mine valuation services to the resources and financial services industries.

RPM has independently assessed the Relevant Assets of the Project by reviewing pertinent data, including resources, reserves, manpower requirements and the life of mine plans relating to productivity, production, operating costs and capital expenditures. All opinions, findings and conclusions expressed in this Report are those of RPM and its specialist advisors.

Drafts of this Report were provided to CMOC, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in this Report.

RPM has been paid, and has agreed to be paid, professional fees based on a fixed fee estimate for its preparation of this Report. Its remuneration is not dependent upon the findings of this Report or on the outcome of the transaction.

None of RPM or its directors, staff or specialists who contributed to this Report have any economic or beneficial interest (present or contingent), in:

- the Project, securities of the companies associated with the Project or that of CMOC; or
- the right or options in the Relevant Assets; or
- the outcome of the proposed transaction.

This CPR was compiled on behalf of RPM by the signatories to this CPR, details of whose qualifications and experience are set out in Annexure A of this CPR. The specialists who contributed to the findings within this CPR have each consented to the matters based on their information in the form and context in which it appears.

RPM Qualifications and Experience

RPM's advisory division operates as independent technical consultants providing services across the entire mining life cycle including exploration and project feasibility, resource and reserve evaluation, mining engineering and mine valuation services to both the mining and financial services industries.

RPM is the market leader in the innovation of advisory and technology solutions that optimize the economic value of mining assets and operations. RPM has serviced the industry with a full suite of advisory services for over 45 years and is the largest publicly traded independent group of mining technical experts in the world having completed over 13,000 studies across all major commodities and mining methods, and worked in over 118 countries globally. This report was prepared on behalf of RPM by technical specialists, details of whose qualifications and experience are set out in **Appendix A**.

RPM has been paid, and has agreed to be paid, professional fees for its preparation of this report; however, none of RPM or its directors, staff or sub-consultants who contributed to this report has any interest or entitlement, direct or indirect in:

- the Company, securities of the Company or companies associated with the Company; or
- The right or options in the relevant Project.

- The work undertaken is an ITR of the information provided by or on behalf of the Company, as well as information collected during site inspections completed by RPM as part of the ITR process. It specifically excludes all aspects of legal issues, marketing, commercial and financing matters, insurance, land titles and usage agreements, and any other agreements/contracts that Company may have entered into.

RPM does not warrant the completeness or accuracy of information provided by the Company which has been used in the preparation of this report.

The title of this report does not pass to the Client until all consideration has been paid in full.

Drafts of this report were provided to the Client, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in the report.

Generally, the data available was sufficient for RPM to complete the scope of work. The quality and quantity of data available, and the cooperative assistance, in RPM's view, clearly demonstrated the Company's assistance in the ITR process. All opinions, findings and conclusions expressed in the report are those of RPM and its specialist advisors.

Yours faithfully,

Jeremy Clark

Manager – Hong Kong (Competent Person – Hong Kong Chapter 18)
RungePincockMinarco

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1. Introduction

Runge, Inc. dba RungePincockMinarco trading ("RPM") has been engaged by CMOC Mining Pty. Ltd. on behalf of China Molybdenum Company Limited (HK:3993) jointly referred to as ("CMOC" or "the Clients") to undertake an Independent Technical Review ("ITR") and compile a Competent Person Report ("CPR" or the "Report") (as defined by under Chapter 18 of the Rules Governing the Listing Rules of the Stock Exchange of Hong Kong (the "Listing Rules") on the Niobium and Phosphate Project (the "Project"). The Project located in Brazil (***Figure 1-1***) is currently owned and operated by Anglo American plc. (the "Company") and is considered a world class vertically integrated niobium and phosphate business which mines, processes and manufactures market ready ferroniobium and a myriad of fertilizer products for domestic and international demand. The Project has been in continuous production for over 40 years with an established and integrated mining, concentration and manufacturing infrastructure which is interconnected with both road and rail networks.

1.1 RPM Scope of Work

RPM's scope of work included:

- Gathering of relevant information on the Project including resources and reserves information, LOM production schedules, and operating and capital cost information;
- Reviewing of the Company's resources and reserves, including quantity and quality of drilling, reliability of data, and adequacy of resource and reserve estimation methods;
- Estimation of independent Mineral Resources and Ore Reserves (as defined in Appendix B) reported in compliance with the recommended guidelines of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"), prepared by the Joint Ore Reserves Committee ("JORC");
- Reviewing and commenting on the exploration prospect of the Project;
- Reviewing and commenting on forecast operating and capital expenditures in the relevant technical studies;
- Reviewing the Project short term and long term development plans;
- High level review of the environmental, health and safety risks and management plans for the Project; and
- Compilation of a CPR as defined under Chapter 18 of the Listing Rules.

1.2 Relevant Assets

The Projects operations includes the Catalão Complex I and II areas located near the Brazilian city of Catalão as well as the town of Cubatão. These Catalão complexes contain both phosphate and niobium deposits as well as a phosphate and niobium concentrators along with a fertilizer plant. A second fertilizer plant Cubatão, is located near the Santos port which allows direct access to international freight via the Atlantic Ocean (***Figure 1-1)***.

1.3 Review Methodology

RPM's ITR methodology was as follows:

- Review existing reports and data,
- Conduct a Competent Person's site visit,
- Discussions with Project personnel of the Company prior to and following the site visit,
- Independent Estimation and Reporting of Mineral Resources and Ore Reserves in accordance with the guidelines of the JORC Code, and
- Preparation of a CPR and provision of drafts of the CPR to Project personnel to ensure factual accuracy and reasonableness of assumptions.

The comments and forecasts in this CPR are based on information compiled by enquiry and verbal comment from the Client and Project personnel from the Company. Where possible, this information has been checked with hard copy data or by comment from more than one source. Where there was conflicting information on issues, RPM used its professional judgment to assess the issues.

1.4 Site Visits and Inspections

RPM visited the Phosphate and Niobium mines and processing facilities between the dates of March 14th and 17th, 2016 to perform technical due diligence on the assets. RPM's site visit team consisted of:

- Tim Swendseid, President, Consulting Services – Americas
- Esteban Acuña, Principal Geologist
- Dick Addison, Principal Process Engineer (responsible for niobium and phosphate beneficiation plants)
- Marten Walters, Principal Chemical Engineer (responsible for phosphate chemical plants)
- João Abud, Environmental and Social Specialist
- Pedro Repetto, Principal Civil Engineer (responsible for tailings/geotechnical)

RPM notes that Hong Kong Competent Person (Mr. Jeremy Clark, as noted in ***Section 1.6***) was not part of the site visit team, however the JORC Competent Person for Mineral Resource and Ore Reserves were part of the team. As part of the Hong Kong Competent Person responsibilities Mr. Clark has relied on the relevant experts who completed the site visit as part of his confirmation of the works completed.

1.5 Information Sources

Several geology studies, feasibility studies, design reports, life of mine budgets and schedules were provided for the Project as well as recent operational data.

1.6 Competent Person and Responsibilities

The Statements of Mineral Resources and Ore Reserves have been reported in accordance with the recommended guidelines of the JORC Code and are suitable for inclusion in a CPR as defined by Chapter 18 of the Listing Rules.

1.6.1 Team Responsibility

As part of the Team, members who have worked to compile this report include the following:

- Mr. Esteban Acuna – Esteban was responsible for review the drill hole database and estimation of the Mineral Resources stated within this Report.
- Mr. Richard Addison – Richard was responsibility for infrastructure and processing and metallurgical flowsheet and parameter review.
- Dr Joao Abud – Joao was responsibility for the review of the environmental and social aspects of the Project.
- Mr. Rondinelli Sousa – Rondinelli was responsible for review the mining parameters, mine scheduling and estimation of the Ore Reserves stated within this Report.
- Mr. Brendan Douglas – Brendan was responsible for undertaking mine scheduling.
- Mr. Pedro Repetto – Pedro was responsible for the review of the infrastructure designs and costing's.
- Mr. Marten Walters – Martin was responsible for review of the Phosphate Chemical Plants.
- Mr. Jeremy Clark – Jeremy was responsible for the supervision of all Team members, their work and the compilation of the Report. Jeremy assumes responsibility of the Report as Competent Person.
- Mr. Philippe Baudry– Jeremy was responsible for the internal peer review of the Report.

Figure 1-1 General Location Map

1.6.2 Mineral Resources

The information in this report that relates to Mineral Resources is based on information compiled by Mr. Esteban Acuña who is a full-time employee of RPM and a Registered Member of the Chilean Mining Commission. Mr. Acuña has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.

Reporting of the Mineral Resources estimate complies with the recommended guidelines of the JORC Code and is therefore suitable for public reporting.

Esteban Acuña

1.6.3 Ore Reserves

The information in this report that relates to Ore Reserves is based on information compiled by the Project and reviewed by Mr. Rondinelli Sousa who is a full time Senior Mining Engineer employed by RPM and is a Member of the American Society of Mining, Metallurgy & Exploration (SME). Mr. Sousa has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the JORC Code.

Rondinelli Sousa

1.6.4 HKEx Competent Person

Mr. Jeremy Clark meets the requirements of a Competent Person, as defined by Chapter 18 of the Listing Rules. These requirements include:

- Greater than five years' experience relevant to the type of deposit;
- Member of the Australian Institute of Mines and Metallurgy ("AUSIMM"), Member of the Australian Institute of Geoscientists ("AIG"), which are Recognized Professional Organizations as per the HKEx and JORC Code.
- Does not have economic or beneficial interest (present or contingent) in any of the reported Relevant Assets;
- Has not received a fee dependent on the findings outlined in the Competent Person's Report;
- Is not an officer, employee or proposed officer for the Client or any group, holding or associated company of the issuer, and
- Assumes overall responsibility for the Competent Person's Report.

Jeremy Clark (Hong Kong Competent Person) (MAUSIMM)

Jeremy is a mining professional with over 15 years of experience in the mining industry and has gained extensive experience working in all facets of the mining chain and has a broad understanding of mineralisation styles, mining methods and technical studies required for mining operations of all scales. Jeremy is a member of good standing both with the AUSIMM and AIG and has taken a lead role in several mining studies and independent reviews including CPR's for numerous HKEx transactions over the past 7 years. Having worked

with all major financial exchange rules and regulations throughout the world, including the Hong Kong, London, Australian, Singapore and Toronto Stock Exchanges, Jeremy has a detailed understanding of the requirements of investors and financial institutions as well as compliance reporting to international standards including JORC and NI 43-101. In addition to compliance reporting his experience includes practical working experience on exploration projects, open cut and underground mines in South America (in particular spending time in-country in Brazil and Peru), Australia and Africa as well as reviewing and estimating a vast number of metalliferous deposits in all major mining provinces throughout the world. As such in addition to understanding the technical facets of mining operation, Jeremy had developed a detailed understanding of the commercial and social interaction of mining operations in various jurisdictions throughout the world including Brazil and Africa and the subsequent requirements for public compliance reporting and investor confidence and transparency.

For the past 10 years Jeremy has worked as an International consultant with RungePincockMinarco in Australia, North and South America, Africa and Asia where he held the role of Principal Geologist and Project Manager and recently Manager – Hong Kong. During his work with RPM, Jeremy has been based in several of RPM's global offices including Perth, Brisbane, Denver, Beijing and Hong Kong and as such has worked on a vast variety of mineral deposit types, mining styles and operations throughout the world including the major mining centres within Brazil, Africa, China, Central Asia, Europe, and North and South America. Recently Jeremy has been the project manager, principal project reviewer and/or acted as Competent Person for a number IPO's, major exchange transaction or major mining studies completed under the JORC Code (or equivalent international standards). This work has included project managing mining studies ranging from scoping and pre-feasibility studies to independent technical reviews of large scale operating assets in South America, Africa and the DRC, China and Australia, which have a variety of mining methods and product types. Recently, as part of Jeremy compliance reporting Jeremy has been Competent Person or Lead Project manager and reviewer for a number of HKEx reports RPM have a strong history of successfully preparing JORC and HKEx compliant Competent Persons' Reports (**See Annexure A**).

1.7 Limitations and Exclusions

RPM's review was based on various reports, plans and tabulations provided by CMOC or the Company either directly from the mine site and other offices, or from reports by other organizations whose work is the property of the CMOC or the Company. Neither CMOC nor the Company has not advised RPM of any material change, or event likely to cause material change, to the operations or forecasts since the date of asset inspections.

The work undertaken for this Report is that required for a technical review of the information, coupled with such inspections as the Team considered appropriate to prepare this Report.

It specifically excludes all aspects of legal issues, commercial and financing matters, land titles and agreements, except such aspects as may directly influence technical, operational or cost issues and where applicable to the JORC Code guidelines.

RPM has specifically excluded making any comments on the competitive position of the Relevant Asset compared with other similar and competing producers around the world. RPM strongly advises that any potential investors make their own comprehensive assessment of both the competitive position of the Relevant Asset in the market, and the fundamentals of the copper, molybdenum, and gold markets at large.

1.7.1 Limited Liability

This Report has been prepared by RPM for the purposes of CMOC for inclusion in its Circular in respect of the proposed acquisition of the Project in accordance with the Listing Rules and is not to be used or relied upon for any other purpose. RPM will not be liable for any loss or damage suffered by a third party relying on this report or any references or extracts therefrom contrary to the purpose (regardless of the cause of action, whether breach of contract, tort (including negligence) or otherwise) unless and to the extent that RPM has consented to such reliance or use.

1.7.2 Responsibility and Context of this Report

The contents of this Report have been based upon and created using data and information provided by or on behalf of CMOC or the Company. RPM accepts no liability for the accuracy or completeness of data and information provided to it by, or obtained by it from CMOC, the Company or any third parties, even if that data and information has been incorporated into or relied upon in creating this report. The report has been produced by RPM in good faith using information that was available to RPM as at the date stated on the cover page and is to be read in conjunction with the circular which has been prepared and forms part of the referenced transaction.

This report contains forecasts, estimates and findings that may materially change in the event that any of the information supplied to RPM is inaccurate or is materially changed. RPM is under no obligation to update the information contained in the report.

Notwithstanding the above, in RPM's opinion, the data and information provided by or on behalf of CMOC or the Company was reasonable and nothing discovered during the preparation of this Report suggests that there was a significant error or misrepresentation of such data or information.

1.7.3 Indemnification

CMOC has indemnified and held harmless RPM and its subcontractors, consultants, agents, officers, directors, and employees from and against any and all claims, liabilities, damages, losses, and expenses (including lawyers' fees and other costs of litigation, arbitration or mediation) arising out of or in any way related to:

- RPM's reliance on any information provided by CMOC and the Company; or
- RPM's services or materials; or
- Any use of or reliance on these services or material,

save and except in cases of death or personnel injury, property damage, claims by third parties for breach of intellectual property rights, gross negligence, willful misconduct, fraud, fraudulent misrepresentation or the tort of deceit, or any other matter which be so limited or excluded as a matter of applicable law (including as a Competent Person under the Listing Rules), and regardless of any breach of contract or strict liability by RPM.

1.7.4 Mining Unknown Factors

The findings and opinions presented herein are not warranted in any manner, expressed or implied. The ability of the operator, or any other related business unit, to achieve forward looking production and economic targets is dependent upon numerous factors that are beyond RPM's control and which cannot be fully anticipated by RPM. These factors include site specific mining and geological conditions, the capabilities of management and employees, availability of funding to properly operate and capitalise the operation, variations in cost elements and market conditions, developing and operating the mine in an efficient manner, etc. Unforeseen changes in legislation and new industry developments could substantially alter the performance of any mining operation.

1.7.5 Capability and Independence

RPM provides advisory services to the mining and finance sectors. Within its core expertise it provides independent technical reviews, resource evaluation, mining engineering and mine valuation services to the resources and financial services industries.

RPM has independently assessed the Relevant Assets of the Project by reviewing pertinent data, including resources, reserves, manpower requirements and the life of mine plans relating to productivity, production, operating costs and capital expenditures. All opinions, findings and conclusions expressed in this Report are those of RPM and its specialist advisors.

Drafts of this Report were provided to CMOC, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in this Report.

RPM has been paid, and has agreed to be paid, professional fees based on a fixed fee estimate for its preparation of this Report. Its remuneration is not dependent upon the findings of this Report or on the outcome of the transaction.

None of RPM or its directors, staff or specialists who contributed to this Report have any economic or beneficial interest (present or contingent), in:

- the Project, securities of the companies associated with the Project or that of CMOC; or
- the right or options in the Relevant Assets; or
- the outcome of the proposed transaction.

This CPR was compiled on behalf of RPM by the signatories to this CPR, details of whose qualifications and experience are set out in Annexure A of this CPR. The specialists who contributed to the findings within this CPR have each consented to the matters based on their information in the form and context in which it appears.

2. Project Overview

The Project is considered a world class vertically integrated niobium and phosphate business which mines, processes and manufactures market ready ferroniobium and a myriad of fertilizer products. The Project is contained within a series of Mining and Exploration licenses (***Figure 2-2***) and consists of a number of world class large scale niobium and phosphate deposits. Phosphate mineralisation occurs near surface in extensive tabular horizontal zones up to 80m thick. The niobium mineralisation is located in the same geological setting to the emplacement of the phosphate mineralisation and occurs both associated with the horizontal phosphate zones as well as in vertical pipe like bodies which have been defined up to 600m in depth. Mining is currently undertaken via conventional open pit methods within two areas (Catalão Complex I and II). In addition, extensive concentration and downstream processing occurs to produce high value products sold directly to market. While the niobium operations produce a single ferroniobium product (65% Nb_2O_5) sold to international markets, the phosphate operations produce a myriad of products (***Section 2.4***) which can be customized and quantities varied based on domestic market conditions.

2.1 Project Location and Access

The Project's operations occur in two geographical locations within Brazil, namely Catalão and Cubatão. The Catalão Operations, consists of the two open pit mining areas (termed Complex I and Complex II), as well 5 separate concentrators (2 phosphate and 3 niobium), a leach and pyro-metallurgical niobium plant and a phosphate fertilizer plant (***Figure 2-1***). The Cubatão operation is connected via a national rail and highway network and contains a single phosphate fertilizer plant.

The Catalão Operations are approximately 15 km northeast of the regional cities of Catalão and Ouvidor (***Figure 2-2***) and 115 km to the north of the major provincial city of Uberlândia. Good-quality paved highways allow easy access from other provincial areas along with Goiânia (253 km) and Brasília (330 km). Good quality internal gravel roads allow access within the site connecting the various operations, while a railroad link allows access from Catalão to the heavily industrialized coastal southeastern area of Brazil with a direct line to Cubatão Fertilizer Plant which supports the Catalão operation.

The Cubatão Plant is located in the city of Cubatão, the state of São Paulo, 12 km away from Santos seaport (***Figure 2-4***) the largest in Latin America.

2.2 Current Operations

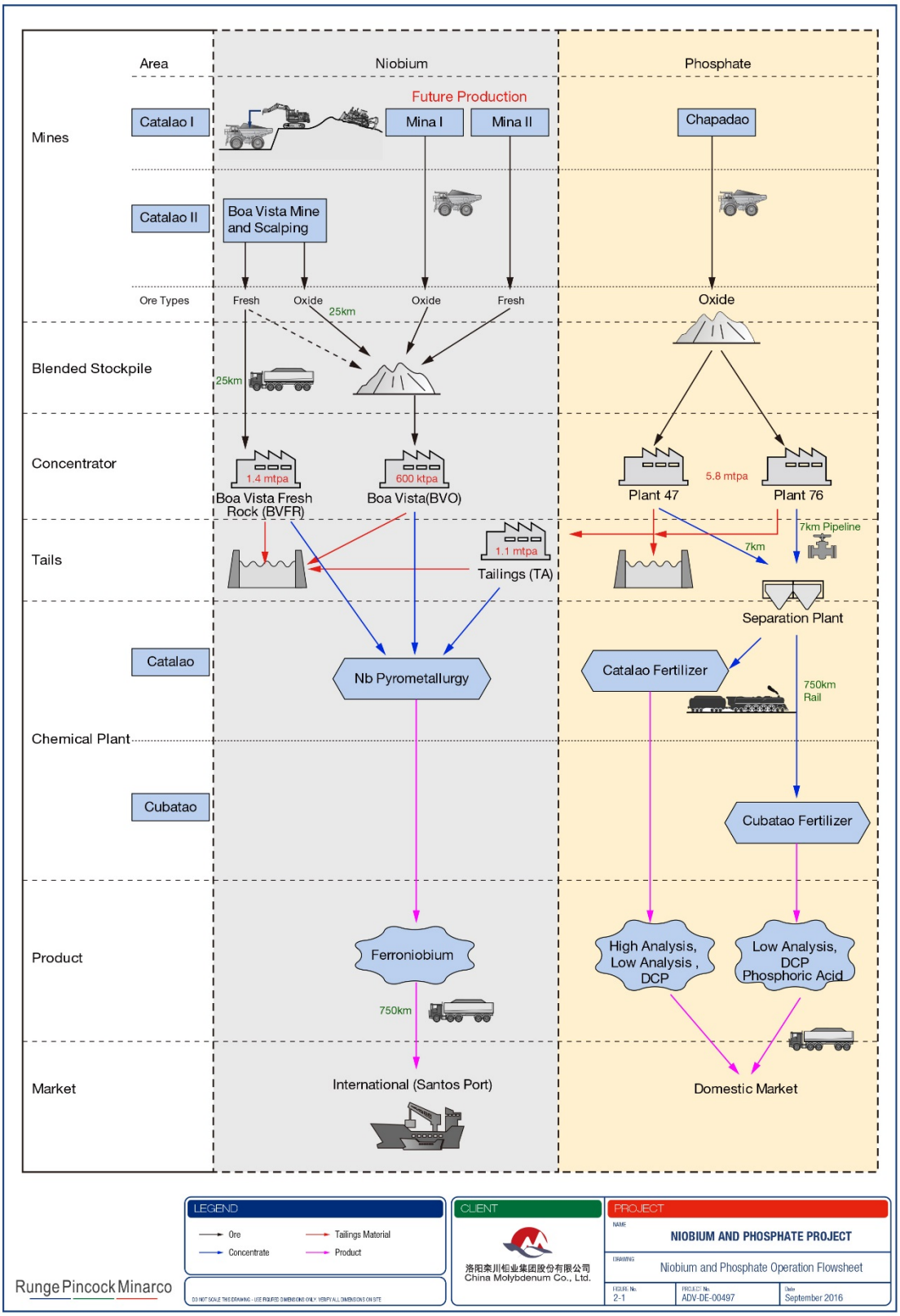
The Project has a long history of mining, with construction of the phosphate concentrators, plants and associated facilities commencing in the 1970's. All mining is undertaken via conventional open pit truck and excavator methods with the Project being in continuous operations since commissioning. The Company is one of two current major market producers both globally and domestically for niobium and phosphate, and with the ability to supply products sold directly into various markets the operations have a high degree of flexibility to meet product demand.

The niobium operation consists of three operating floatation concentrators which are currently fed from two sources, namely the Boa Vista open pit (oxide and fresh material), located 25km from the Catalão Concentrators (Catalão Complex I) and tails material from the phosphate concentrators. The current feed will be supplemented by material from Mina I and Mina II deposits within the Chapadão pit (Catalão Complex I) which is located adjacent the concentrators. Combined the three concentrators have a throughput capacity of 3.1 dry million tonnes per annum ("mtpa") run of mine ("ROM"), the concentrates of which are feed into a single leach and pyro-metallurgical plant located adjacent. This plant produces approximately 13 kilo tonnes per annum ("ktpa") of ferroniobium product which is trucked 750 km to the Santos port for shipment to international markets including China, Korea and Japan.

The phosphate operations consists of two floatation concentrators which combined have a throughput rate of 5.8 mtpa ROM. Feed for the plants is oxide material from the adjacent Chapadão pit (***Figure 2-1***). The concentrators, produce a slurry concentrate which is pumped via a 7 km pipeline to the separating station within the Catalão Fertilizer plant. This station separates the fined and coarse materials within the slurry, all fines and 55% of the coarse material are fed directly to the Catalão Fertilizer Plant, the remaining 45% coarse material is transported 750km via rail to the Cubatão Fertilizer Plant (***Figure 2-1***).

RPM has estimated the total Niobium Ore Reserves to be approximately **35.1 Mt** at an average grade of 0.9 % Nb_2O_5 which is sourced from the current Boa Vista pit, as well as the Mina I and Mina II areas within the Chapadão Pit. Over the 13 year LOM, the Boa Vista pit stripping ratio will average 3.78 t waste to 1.0 t ore. Similarly, the total Phosphate Ore Reserves to be approximately **208.9 Mt** at an average grade of 12.3 % P_2O_5 over the 37 year LOM, the Chapadão pit stripping ratio will average 3.0 t waste to 1.0 t ore. RPM notes the Chapadão Open Pit strip ratio includes both the Niobium (Mina I and Mina II) and Phosphate Ore Reserves within. Drilling, blasting, loading, and transport activities at both Boa Vista and Chapadão mines are performed by contractors.

Figure 2-1 Niobium and Phosphate Operations Flowsheet



2.3 Product Types

While a single niobium product is produced, numerous phosphate products are sold to the domestic market (***Figure 2-1***). It is important to note that fertilizers are typically named and grouped by the proportion of the fertilizer components contained within, namely, N (nitrogen), P_2O_5 (phosphate) and K_2O (potash). As such the product name typically contain these three numbers for easy reference. The product typically produced by the Company include:

- Sulphuric Acid - produced at Sulphuric acid Plant (Catalão and Cubatão)
- Phosphoric Acid - Typically ranging in acid content concentration between 46 and 51% P_2O_5 at Catalão and 54% at Cubatão produced at Phosphoric Acid Plant (Catalão and Cubatão);
- Single Superphosphate ("SSP") –the combination of fine phosphate concentrate (low grade) and diluted Sulphuric acid produced at Acidulation Plant (Catalão and Cubatão);
- Triple Superphosphate ("TSP") - though the combination of high grade concentrate and Phosphoric Acid produced at Acidulation Plant (Catalão Plant only);
- Dicalcium Phosphate ("DCP") produced at DCP Plant (Catalão and Cubatão);
- Granulated SSP – 00-21-00 produced at Catalão and Cubatão Granulation Plant
- Granulated SSPAM – 03-17-00 produced at Catalão and Cubatão Granulation Plant
- Fertilizer Grade Mono ammonium phosphate Granulation ("MAP") (11-52-00) – Produced through the combination of Ammonia and Phosphoric Acid at Catalão Granulation Plant
- Granulated TSP – 00-46-0 produced at Catalão Granulation Plant
- Granulated SSP – 02-18-00 with micronutrient produced at Cubatão Granulation Plant

2.4 Market Overview

RPM is of the opinion that to understand the opportunities and complexities that exist within the operations, it is critical to understand the market in which the Company operates, as such a brief overview is presented below of those markets.

This information is largely supplied by the Company or third party reports and RPM presents this information for reference purposes only and recommends the reader consults a marketing expert.

2.4.1 Phosphate

The Company's mines also produce one of the highest quality phosphate concentrates in world, achieving a P2O5 concentration around 37% , which allows the company to produce both high and low content fertilizer products (above 40% and below 21% P_2O_5 content, respectively). This combined with the limited supply of high content P fertilizer product domestically (40% imported in 2015), the Company is well placed on the cost competitive curve, as one of major Midwest region market shareholder, to not only compete with other domestic producers it is extremely well positioned given the geographic locations of the its operations to compete with international importers to the domestic Brazilian market. RPM highlights that the Company at this time does not export any of the fertilizer products.

2.4.2 Niobium

The information shown below is mainly derived from Roskill Consulting Group Limited, Niobium Industry outlook, January, 2016.

The Niobium market is dominated by the production of the mineral pyrochlore (>97% world production). Production of pyrochlore is predominately from Araxá (CBMM) and Catalão (Anglo American Brazil) mines in Brazil and from Magris Resources' Saint-Honoré operation in Canada. There is also some small-scale but intermittent pyrochlore production in Africa. Pyrochlore mined by the Company (Catalão), as with its other major supplies, is converted to ferroniobium by the producers prior to sale using an aluminothermic reduction process as outlined in Section 9. All ferroniobium produced by the Company is sold internationally. At CBMM, pyrochlore is converted to ferroniobium, along with alloys, niobium metal and oxide products. Most ferroniobium entering the market originates, therefore, in either Brazil or Canada, with Brazil being by far the larger of the two producers.

Recent growth in ferroniobium consumption has been underpinned by increasing global production of steel, and in particular the rising use of certain added-value steels that contain niobium. In all cases, ferroniobium is added in very small amounts – fractions of a percent by weight per tonne of steel. HSLA-grade ferroniobium is the main end-use for niobium. Historically, the main use for HSLA steels was in pipelines for the natural gas industry. That remains a major application but has been overtaken in recent years by structural uses and automobiles.

A large proportion of the Company's product is sold to Europe, however it also sells into most other markets in the world including Asia which is the largest consuming region of ferroniobium, accounting for 47% of the global total with the majority of demand from China, Japan and South Korea make up the majority of Asian demand.

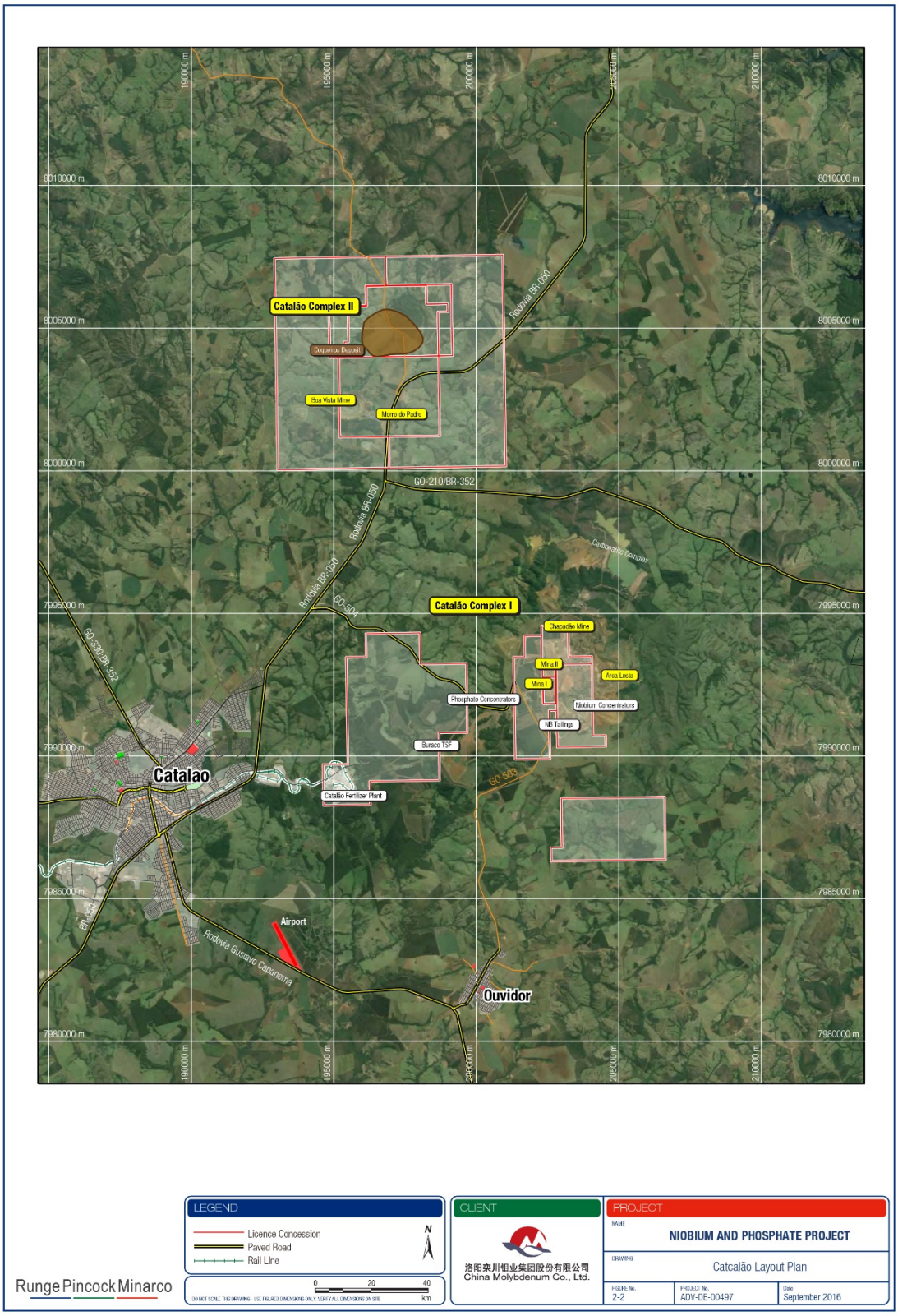
2.5 Regional Environment

2.5.1 Geography

The Catalão region is located in southeast of the State of Goiás in the southern portion of the Brazilian Highland (***Figure 1-1***). The landforms are dominated by rolling hills in the west and a plateau in the east which becomes flatter and higher in elevation towards the Northeast. Altitudes vary between 650 and 1,200 m with relief chambered, with depressions in the valleys of the rivers San Marcos and Paranaíbas. The large plateau of the region forms the divide between three of Brazil's largest river systems, the Paranaíba River to the south the São Francisco River to the east with the Araguaia and the Tocantins Rivers to the North.

Due to farming and industrialization only small areas of remnants of Atlantic forest and woodland savannas, known in Brazil as campo cerrado remain, although there are still tropical forests along the rivers.

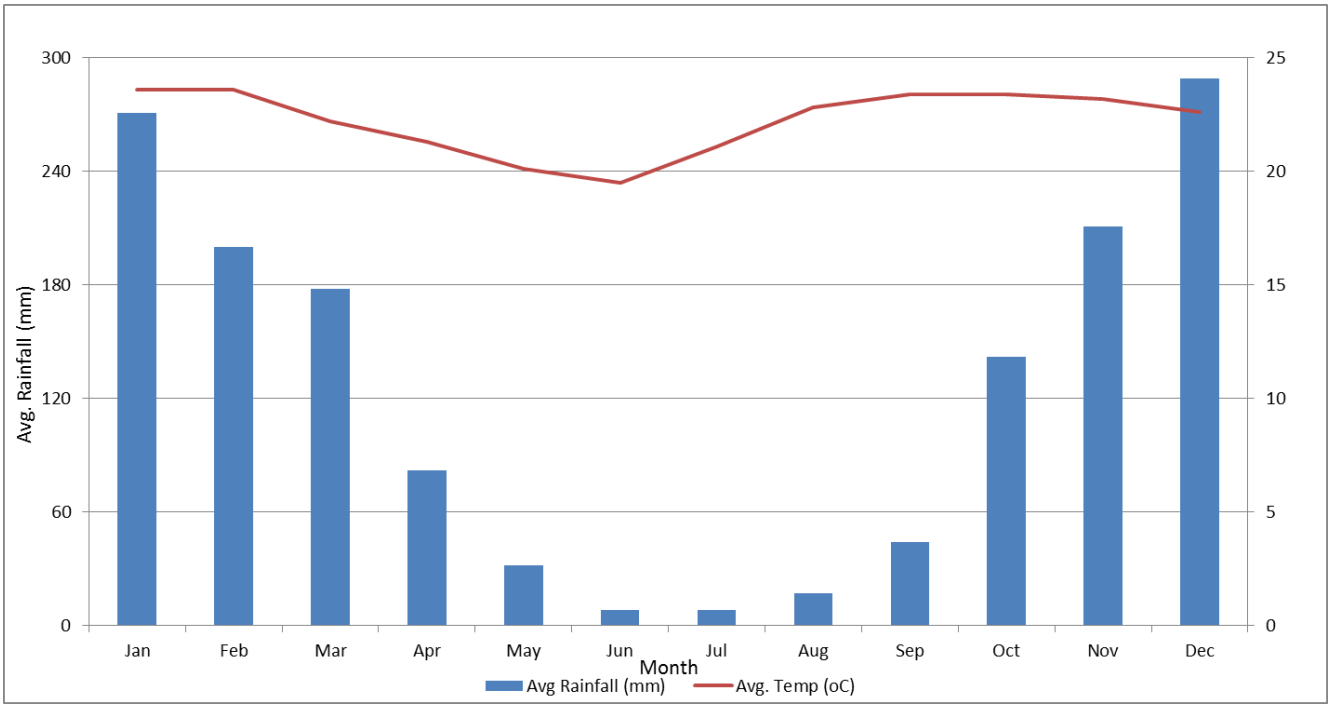
Figure 2-2 Catalão Layout Plan



2.5.3 Climate

The Catalão region has a tropical wet and dry/ savanna climate with a pronounced dry season between May and August and a wet season occurring between November and February. This seasonal rainfall also varies on year by year basis and has had an impact on both mining activities and water supply and storage as detailed in ***Sections 9 and 11***. The average annual temperature is 22ºC and has an average rainfall of 1,500mm per annum as outlined in ***Figure 2-3***.

Figure 2-3 Catalão Regional Average Rainfall and temperature



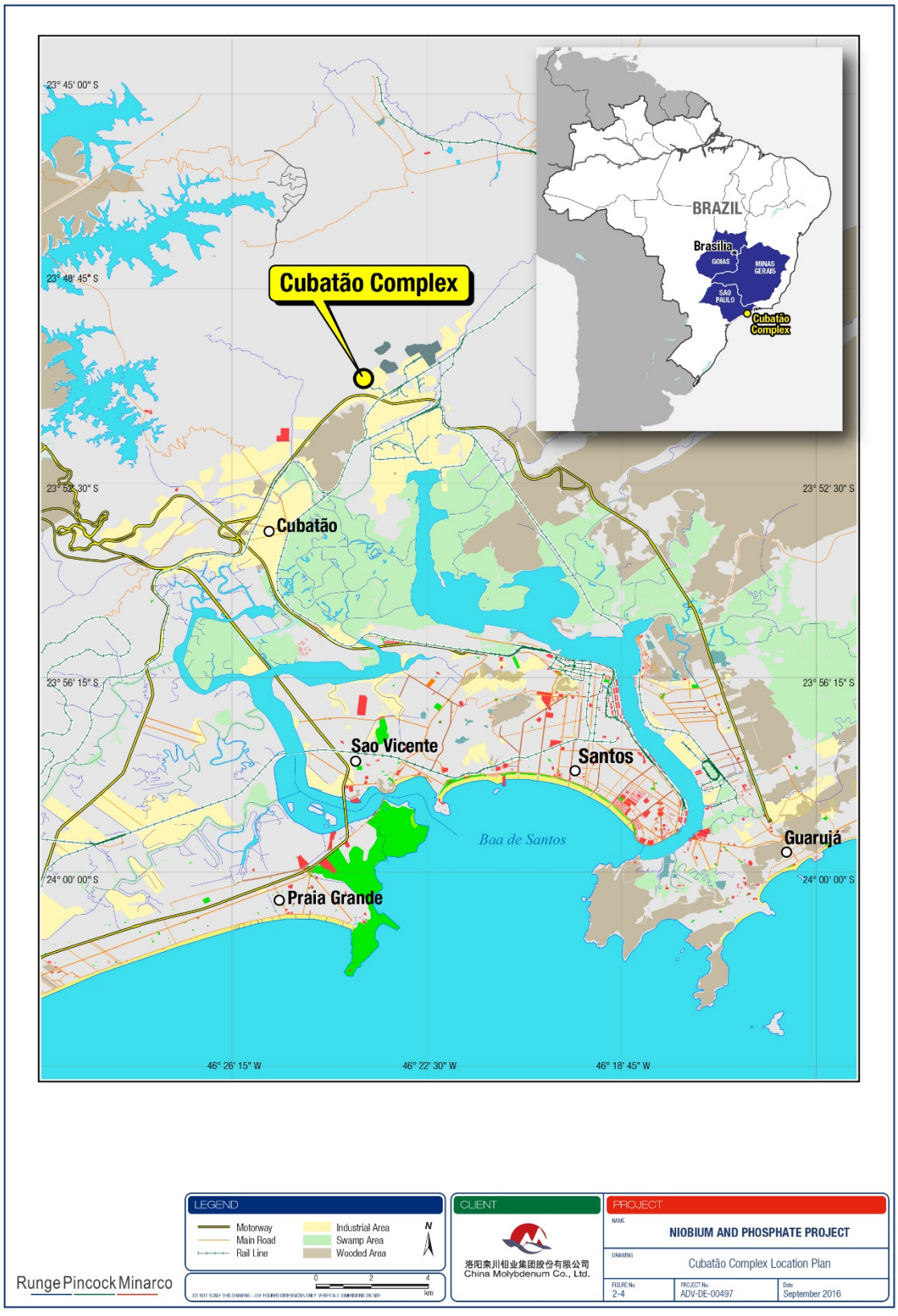
2.6 Industry

Apart from the heavy industry of mining and manufacturing, the region traditional industry is cattle raising. The Catalão Region is still a significant producer of meat and dairy products and poultry, plus is a large producer of corn and soybeans.

2.7 Regional and Local Infrastructure

In addition to the open pit mining and the surface processing plant and office infrastructure, significant regional and local infrastructure provide support to the operations and the forecast production requirements. A review by RPM of the regional and local supporting infrastructure indicates that the area has suitable power, water and transport logistics connecting the operating assets to downstream processing, local and international markets to support the Life of Mine ("LOM") production presented in this report. The Project is located close to well established excellent quality highways and rail infrastructure (***Figure 2-2***), water sources and regional towns which provide accommodation and support services for the mining operation and its personnel. Further details of the supporting infrastructure are provided in ***Section 12***.

Figure 2-4 Cubatão Plant Location



3. Licenses and Permits

The Company holds numerous current mining tenements including mining and exploration licences (permits), business, environmental and safety permits. These enable the operations including mining operations, major surface facilities and ore handling, management operations, electrical infrastructure, waste and TSF emplacement, and exploration activity. Below is a summary of the key permits,

RPM provides this information for reference only and recommends that land titles and ownership rights be reviewed by legal experts.

3.1 Mineral Concessions and Surface Rights

All key mining tenements are currently valid for the continued operation of the assets to support the planned production rates. All relevant mining and exploration licenses and authorizations held by the Company are listed in ***Table 3-1*** and are shown graphically in ***Figure 2-2***.

RPM notes that as per normal Brazilian regulations the exploration concessions have renewal deadlines (RFPq). RPM understands the Company has preemptive rights to renew these licenses as per standard applications with the regulators. As shown in ***Table 3-1*** the various concessions also contain the rights for various minerals which coincide with the known deposits and mining areas.

Table 3-1 Mining and Exploration Rights

ID	Label	Area (HA)	Status	Legal Diploma	Date Protocol (M/D/Y)	Dead Line for RFPq	DNPM Application for	Potential Commodities
860.119/14	FFG-019	1,035.40	Exploration	728	26/02/2015	24/02/2017	phosphate	niobium & phosphate
861.103/13	FFG-008	1,704.22	Exploration	7,113	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.210/13	FFG-009	852.45	Exploration	7,153	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.211/13	FFG-010	1,100.70	Exploration	7,154	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.212/13	FFG-011	768.67	Exploration	7,155	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.379/13	FFG-015	1,950.53	Exploration	7,175	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.380/13	FFG-016	1,000.85	Exploration	7,176	3/09/2015	1/09/2017	phosphate	niobium & phosphate
801.560/68	FFG-001	166.76	Mine Concession	85	27/01/1984		niobium, phosphate, barite	niobium, phosphate, barite
804.513/68	AREA-05	40.94	Mine Concession	87	6/05/2004		niobium, phosphate, barite	niobium, phosphate, barite
860.402/01	FFG-004	455.91	Mine Concession Application	6,370	6/09/2004		phosphate	niobium, phosphate, barite
860.897/12	DGF-005	1,996.90	Application Claim - Ouction				niobium and phosphate	niobium & phosphate
860.898/12	DGF-004	1,958.31	Application Claim - Ouction				niobium and phosphate	niobium & phosphate
861.461/15	FFG-007/B	1,964.07	Application Claim	20	21/01/2016	21/01/2019	phosphate	niobium & phosphate
860.351/03	MCG-003	726.08	Mine Concession Application	4,883	13/03/2007		niobium	phosphate & niobium

Source: Unit Costs Provided by the Company

3.2 Water Rights

Water required for the operations is sourced by various methods, including wells and surface sumps and runoff. As such numerous water rights permits are required for the Project. All permits are current in good standing to support current production, however a review is currently underway by the Company to find alternative sources, including additional wells which require permitting. Further information is provided in ***Section 14***.

3.3 Environmental and Operating Permits

The Project currently holds numerous environmental, construction, and operating permits. ***Annexure D*** outlines the relevant licenses and permits held. The permits include the waste and tails dam facilities construction and operating permits, water well drilling and extraction permits and various operating and environmental permits. RPM has completed an overview of these permits, and considers them in good standing to support the continued operation of the asset for the foreseeable future. RPM does note that as per typical Brazilian standards, various permits and licenses need to be renewed as per any long standing and operating mining and processing operations. RPM notes this includes the waste dumps and tails dam facilities expansions. RPM is not aware of any reason for these permits to not be renewed pending the correct and suitable application procedure.

Further details on tenements, approvals and licenses held by the Company are provided in ***Section 15***,

3.4 Land Right

The Company has a Department of Land Management, responsible for the identification of land requirements over the LOM. The ELO system is also used to track land ownership and land acquisition requirements. While RPM has not completed a detailed land right review, and refers the legal opinions in various sections within the circular, it was noted that the current land holding and permits are suitable for production for the near future, however minor land acquisitions will be required over the mine life.

4. Project History

4.1 Exploration History

The Project has a long history of systematic exploration which has included geological mapping, geophysical and geochemical surveys as well as a large amount of surface diamond and reverse circulation drilling. The exploration history by the current and previous owners commenced in the 1970's when CBMM detected niobium anomalies in Boa Vista, Morro do Padre and Mineração Farm. CBMM also drilled Catalão I with brushing system, but also diamond and reverse circulation drilling. In Catalão II complex, two zones were detected (Coqueiros and Boa Vista) by the aeromagnetic map surveyed by CPRM in 1976. Although, the first aeromagnetic exploration of Catalão I and II was made by DNPM in 1974.

In 1982, Mineração Catalão the Goias (MCGL) completed 4 drill holes intersecting several niobium occurrences (nelsonites) and also phosphate and copper mineralised zones in Catalão II. In Chapadão, MCGL completed 52 drill holes in between 1986 and 1986 and 70 drill holes in the period 1999-2000 in the zone called ultra-fertile, now known as Area Leste Mine.

Exploration was stopped until 2003, when Anglo American acquired the properties. Several aeromagnetic and field geophysical exploration campaigns were carried out by the Company from 2003 to 2008. Since 2003, the Company has drilled numerous drill holes to outline and define resources in the targets of Chapadão for phosphates and niobium, Boa Vista – Morro do Padre for niobium and Coqueiros for phosphate and niobium (***Table 4-1***).

Table 4-1 Summary of Drilling Per Deposit

Project	Drilling Type							
	DDH		RC		Mix		Unknown	
	m	# holes	m	# holes	m	# holes	m	# holes
Chapadão	127,494	13,116					57,607	578
Coqueiros	13,646	119						
Boa Vista	63,358	548	87,644	4,747				
Morro do Padre	18,288	115						
Mina I	32,559	?						
Mina II	6,959	85	3,264	179				
Area Area Leste					9,977	122		
Total	**255,346**	**13,898**	**87,644**	**4,747**	**9,977**	**122**	**57,607**	**578**

Source: Unit Costs Provided by the Company

5. Geology

RPM has reviewed the geology of the two niobium and phosphate complexes in Catalão I and II, southern Goias and western Minas Gerais states, on both a regional and deposit scale and considers the geology to be well understood and developed through the generations of geological mapping, dating and intrusive history, geological cross sectional interpretations, and three-dimensional models. Below is a summary of the key geological features of the Project.

RPM notes that the below summary has largely been derived from information provided by the Company from various reports and sources, however has been review and edited based on RPM's opinion and site visit observations.

5.1 Regional Geology

Mineralisation within the Project is associated with phoscorite-carbonatite complexes which are rare in the geological record and form P, Nb, Cu, REE, Ba, Ti and other economic deposits. In southern Goias and Minas Gerais states, a large number of these intrusions and associated lava flows were emplaced from Early Cretaceous to Eocene times rock formations and overlay Proterozoic metamorphosed and deformed supracrustal sequences (referred to as the Brazilia Mobile Belt) which had a metamorphism peak age between 1.77 and 1.6 Ga. This province, known as The Alto Paranaíba igneous province (APIP), has an important number of phosphate and/or niobium mining district as such: Tapira, Araxá, Salitre, Serra Negra and Catalão and contains both the Company's and CBMM deposits.

The Catalão I and II areas both comprise alkaline-carbonatite intrusions emplaced into a metamorphosed Proterozoic basement (***Figure 5-1***). Valeriono, 2008, summarizes the tectonic evolution of the Brazilia Mobile Belt as follows:

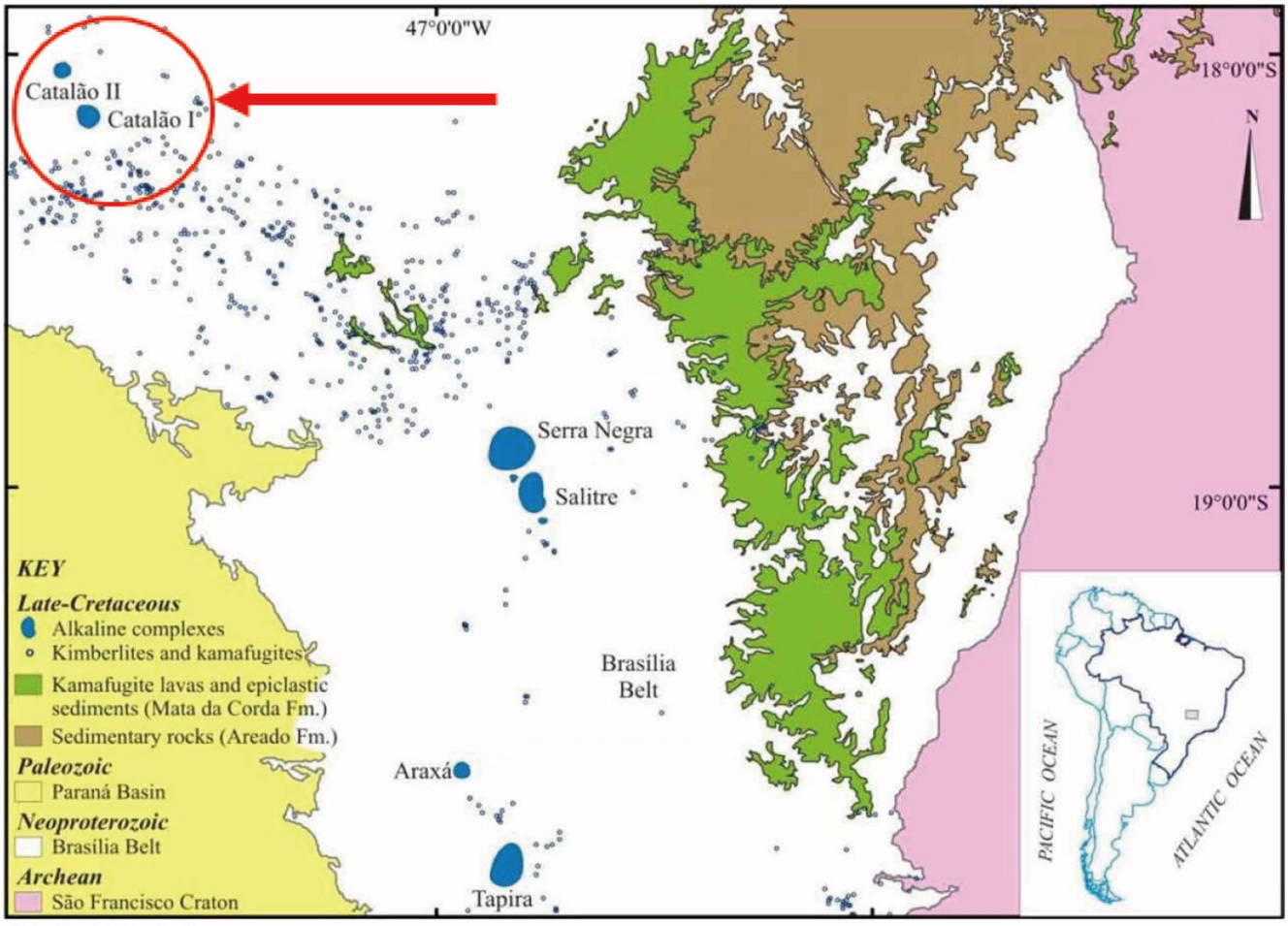
"The Brasília Belt comprises terranes and thrust-sheets that were tectonically transported towards the western passive margin of the São Francisco–Congo palaeocontinent during an orogenic episode resulting from collision of the Paranapanema and Goiás blocks and the Goiás magmatic arc against São Francisco–Congo at 0.64–0.61 Ga. The tectonic zones of the belt are, from east to west:

- Foreland zone with Archaean–Palaeoproterozoic granite–greenstone basement covered by Neoproterozoic anchimetamorphic sedimentary rocks (Bambuí Group);
- Low metamorphic grade thrust-fold belt of proximal shelf successions, mostly siliciclastic, containing rare basement slivers;
- Metamorphic nappes in upper greenschist to granulite facies of distal shelf and slope metasediments and subordinate tholeiitic metabasalts;
- The Goiás massif, possibly a microcontinent;
- The Goiás magmatic arc.

The accretion of these terranes against the western margin of the São Francisco–Congo palaeocontinent took place during an early phase of Gondwana supercontinent amalgamation to create a proto-West Gondwana landmass, around which subsequent collisional and accretionary events followed, such as those in the Borborema–Trans-Saharan province (*c.*0.62–0.60 Ga); in the Ribeira–Araçuaí belt (*c.* 0.58 Ga); along the Araguaia and Paraguay belts (collision of Amazonia, *c.*0.54–0.52 Ga); and the accretion of Cabo Frio terrane in the Ribeira Belt (*c.*0.53–0.50 Ga) "

The Brazilia Mobile Belt basement was intruded by major alkaline-carbonatite complexes and minor alkaline rocks and partially covered by volcanic rocks of the Mata da Corda Formation forming the Alto Paranaíba Igneous Province (APIP). The APIP corresponds to a probable suture zone between Sao Francisco craton and the Paraná Basin (Van Decar et al., 1995). The Late-Cretaceous alkaline rocks of APIP comprise kamafugitic (potassium-rich, silica-undersaturated igneous rocks) volcanic and plugs, with subordinate kimberlite diatremes and alkaline-carbonite plutonic complexes. They are co-genetic with the numerous small kamafugite pipes occurring throughout the province and with the kamafugite lavas and pyroclastics of the Mata da Corda Group.

Figure 5-1 Regional Geological Map



Note: Provided by the Company

The alkaline-phoscorite-carbonite complexes consist of three distinct petrogenetic series - bebedourite, phoscorite, and carbonatite (Brod et al., 2004), closely related to each other by interplays of crystal fractionation, liquid immiscibility, and degassing.

5.1.1 Regional Alteration

No significant hydrothermal alteration is observed in the intrusive systems however metasomatism associated to the alkaline-carbonatite intrusions produced fenitization of the Precambrian quartzite, phyllite and amphibolite. The fenitization intensity is variable however in general the original metamorphic foliation was preserved. In the igneous rocks, olivine and pyroxenes were hydrothermally transformed into phlogopite (tetra-ferriphlogopite).

5.1.2 Mineralisation

The majority of carbonite deposits in region are localized within stable continental tectonic units, such as shields, cratons, and crystalline blocks, with well-developed old Earth crust. Inside these large regional structures, carbonatites are confined to alkaline magmatic provinces controlled by intracontinental rift and fault systems. Main economic minerals include pyrochlore as a major source of Nb and apatite for P**,** while Nb-rutile and Nb-ilimenite also occur within the deposits. Monazite, bastnaesite, and synchysite are the most important sources of REE.

5.2 Deposit Geology

5.2.1 Catalão I complex

The phoscorite-carbonatite complex Catalão I is an approximately 5 km diameter circular structure. Within this complex, rocks were concentrically emplaced, with a predominant carbonatitic rock core which is surrounded by phoscorites and in turn surrounded by silicate rocks, such as pyroxenite (***Figure 5-2***). The rock types are closely associated with the mineralisation in the complex with niobium mineralisation located in the core of the complex (in the phoscorite-carbonatite zone) which is in turn surrounded by high-grade phosphate mineralisation (phoscorite zone) followed by the outer low grade phosphate mineralisation (pyroxenite zone).

As such Complex I hosts both Niobium and Phosphate economically significant mineralisation with exploration to date defining the Chapadão Phosphate deposit, Mina I, Mina II and the Area Leste Niobium deposits.

Chapadão – Phosphate

Weathering processes generated a thick weathering cover that, on average, is 150m thick which typically contains the horizontal tabular mineralised zones which are very extensive. During the weathering process some layers were silicified due to the water table variation, resulting in hard material within the mineralised zone. Mineralisation typically occurs as Apatite with the content varying based on the weathering profile which are shown graphically in ***Figure 5-2*** and outlined below:

- Red and yellow laterites, the base of this unit is enriched in magnetite; therefore rich in Fe2O3, which is the main component of the soil. This layer contains no mineralisation.
- Oxide level has the highest degree of alteration and its texture ranges from sandy to argillaceous, depending on the quantity of apatite and magnetite.
- Silexite can be found in the contact between the phlogopite zone and the vermiculite zone, or between the oxide mineralisation and the vermiculite zone. It can be found as vertical or horizontal deposits. It normally contains high grades of P2O5, but also high grades of Fe2O3;
- Vermiculite zone is found on top of the phlogopite zone and is represented by interstratified minerals, rhythmic layers of phlogopite and vermiculite,
- Phlogopite zone: the mica is fresher than in the previous layers,
- Partial weathered layer contains mainly carbonates; primary structures are clearly seen and also boulders often occur.

Niobium

The Catalão I complex contains both fresh rock and residual (weathering-related) niobium mineralisation. The fresh rock niobium deposit consists of sub vertical two pipe-shaped bodies named Mine II and Area Leste Area emplaced in carbonatite and phlogopitite. The bodies consist of dike swarms of pyrochlore-bearing, olivine-free phoscorite-series rocks (nelsonite) that can be either apatite-rich (P2 unit) or magnetite-rich (P3 unit). Natropyrochlore and calciopyrochlore are the most abundant niobium phases in the fresh rock deposits. Pyrochlore supergroup chemistry shows a compositional trend from Ca–Na dominant pyrochlores toward Ba-enriched kenopyrochlore in fresh rock and the dominance of Ba-rich kenopyrochlore in the residual deposit.

Three deposits of niobium (Mina I, Mina II and Area Leste) have been defined over carbonatites intruded in the central portion of the complex, and occur within the weathered portions of the intrusives. The mineralised thickness averages approximately 80 m, reaching a maximum of 120 m. The weathered materials consist of lateritic cover and underlying saprolite (same as the Phosphate weather).

The lateritic zone constitutes the overburden to the mineralisation and is made of a ferruginous and intensely weathered material, with no recognizable relict structure. Its thickness is variable, in general not exceeding 25 m. The dominant crandallite-group mineral gorceixite ($BaAl_3$ (PO_4) (PO_3OH) $(OH)_6$) is responsible for the ochre colour of this zone. Goethite predominates at a depth of 17 to 20 m. Pyrochlore, though always present, is generally fine-grained and, in most cases, stained with a film of iron hydroxides.

The saprolite zone contains the majority of the economic oxide niobium mineralisation with Mina I and is composed of rocks with relicts primary structures recognizable which grade into the underlying fresh rocks at the base of the saprolite. This transition is characterised by a vermiculite horizon which is typically above the fresh rocks. The saprolite is rich in apatite (phosphate mineralisation) and anatase, although not evenly distributed. The distribution and grade of niobium mineralisation is variable, both horizontally and vertically, reflecting the distribution of pyrochlore, which occurs within dykes and fracture-filling veins in the un-weathered rock. Large blocks and masses of supergene silexite are abundant in the saprolites resulting in a large mineralogical variation, with magnetite, barite, apatite and secondary phosphates being always visible. Of the main concentrations of apatite, pyrochlore, monazite, anatase and vermiculite recognised within the complex, only apatite and pyrochlore (Nb) are being exploited.

Below is a general description of each deposit.

Mina I

The Mina I deposit is confined to the saprolite layer and has been crosscut by many carbonatite dykes, forming box work structures which show magmatic structures like magma flows or brecciation. There are many different rock types which in general take the form of vertical dykes.

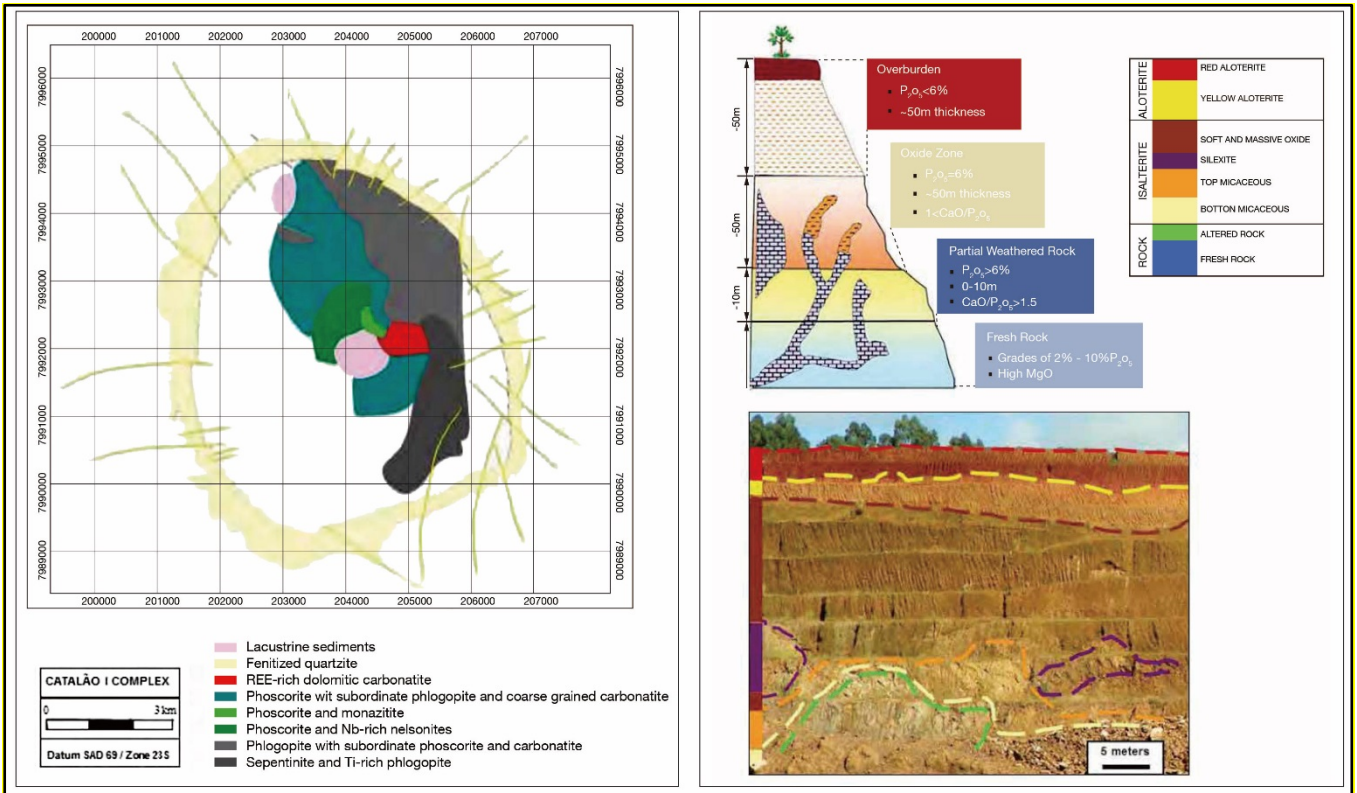
Mina II

Mina II is a sub-vertical pipe like body (***Figure 7-7***) which varies in thickness from 20 to 80m and have been defined up to 600m in depth. Mineralisation occurs both in the oxide and fresh rock (oxide mined out) associated with the three main lithologies nelsonites, carbonatites and phlogopitites.

Area Leste

The Area Leste deposit is similar in orientation and geometry to the Mina II deposit and occurs as a sub vertical pipe-like body nelsonite with carbonates, magnetite and phlogopite and accessory apatite and pyrochlore among others. Nelsonite intruded ultramafic and carbonatites forming the primary conditions for supergene residual enrichment of niobium. The supergene profile comprises 60-120 m of laterites and saprolite (which forms the current resource). The saprolite base is characterized by occurrences of vermiculite and enriched apatite and anastase horizons as is typical of the region. The lateritic cover is mainly formed by goethite, and fine-grained pyrochlore is surrounded by iron-oxides.

Figure 5-2 Catalão I Local Geology Map



Note: Provided by the Company

5.2.2 Catalão II Complex

The Igneous complex evolution in Catalão II has been interpreted as a shallow ultra-potassic-affine magma chamber of multiphase evolution which evolved through complex combinations of fractional crystallization, liquid immiscibility, magmatic segregation and degassing/metasomatism, resulting in a wide diversity and intricate contact-related lithology and mineralisation style.

The alkaline magmatic rocks are partially exposed with the largest exposure in the northern portion of the complex while the southern portion outcrops consist of swarms of nelsonites and carbonatites with subordinates phlogopite, picrites and bebedourites (***Figure 5-3***).

Catalão II occurs as a tangle of veins and dykes which can be divided into two "pipes" separated by a few kilometres which differs from the concentric nature of Catalão I. As shown in ***Figure 5-4*** there is a significant contrast between the circular patterns of the northern portion compared to the swarm of dykes and intrusive bodies in the south. Several hypotheses have been presented, however the common consensus is that the contrast is due to the emplacement of two separate intrusive bodies, however the southern body is at depth with an not exposed at surface.

Consistent with emplacement of two bodies distinct mineralisation zonation occurs within the Complex with the northern area containing a phosphate deposit (Coqueiros) generated by a succession of circular alkaline rocks (mostly piroxenites and bebedourites), phoscorites, apatitites, and carbonites. The southern portion contains the majority of the defined niobium mineralisation (Morro do Padre and Boa Vista) in nelsonite and carbonite east-west oriented dykes which intrudes fenitized phyllites, quarzites and amphibolites.

A similar weathering profile to Catalão Complex I has been formed with between 30 m and 40 m of red cavernous siliceous crust which contains rare baryte veins. The profile becomes progressively enriched in apatite, dispersed in a yellowish-brown clay matrix with the fresh rock boundary occurs commonly at a depth of 50 m.

Niobium

Niobium mineralisation is associated with nelsonite vein which vary in thickness and orientation forming stock work style deposits. Containing magnetite-apatite-carbonate composition economic mineralisation is exclusively associated with the mineral pyrochlore. The nelsonite veins are hosted within a variety of pre-existing lithologies including amphibolite and fenite, a metasomatically altered rock believed to originally comprise phyllite. Phlogopite alteration may also be associated with the carbonatite veins, where it commonly occurs as haloes surrounding the veins and overprinting the fenite. To a lesser extent phlogopite occurs as selvages to the nelsonite veins.

Two significant niobium deposits have been defined to date and are named Boa Vista and Morro do Padre deposits. These deposits are hosts by igneous rocks which occurs as swarms of thin dikes, forming a stockwork of crosscutting dikes in the upper zone and varying to individual mineralised thicker dikes at depth (***Figure 5-4***).

Two types of nelsonite were recognized. N1 is typically apatite-rich, finer-grained, and often shows a homogenous granular texture. N2 is generally more abundant than N1. It is coarse-grained to pegmatoid, magnetite and pyrochlore rich with variable content of chalcopyrite. N2 type nelsonites are richer in Si, Fe, K, Mg, Ba, Nb, S, and Cu than N1 type ones. Contact relationship between N1 and N2 types are unclear, although N2 nelsonites dominate in the upper zone while N1 is the dominant type at depth. Locally, N2 dykes appear to crosscut N1, suggesting that they represent a late stage of magmatic evolution. Similarly, carbonatites are classified as early-stage calciocarbonatites (C1) and late-stage magnesiocarbonatites (C2). C2 are enriched in Fe, Ba, Mn, Nb, REE, S, Th, and Cu. ***Figure 5-4*** shows local geology map of the complex.

Exploration to date indicate that the Niobium mineralisation was formed as a result of numerous episodic mineralisation pulses and multiple episodes of carbonatite and nelsonite emplacement. Cross-cutting relationships can locally be observed between some of these vein sets. The nelsonite stringers can be most clearly observed within limited exposures of fresh rock beneath the lateritic soil profile within the eastern side of the Boa Vista pit. Comprising a blue-green fenite cut by multiple planar discontinuities the host rock is cross-cut by anastomosing carbonatite and nelsonite stringers which are overprinted with phlogopite alteration. It is observed within drill core that localised occurrences of massive nelsonite occur and these are interpreted to

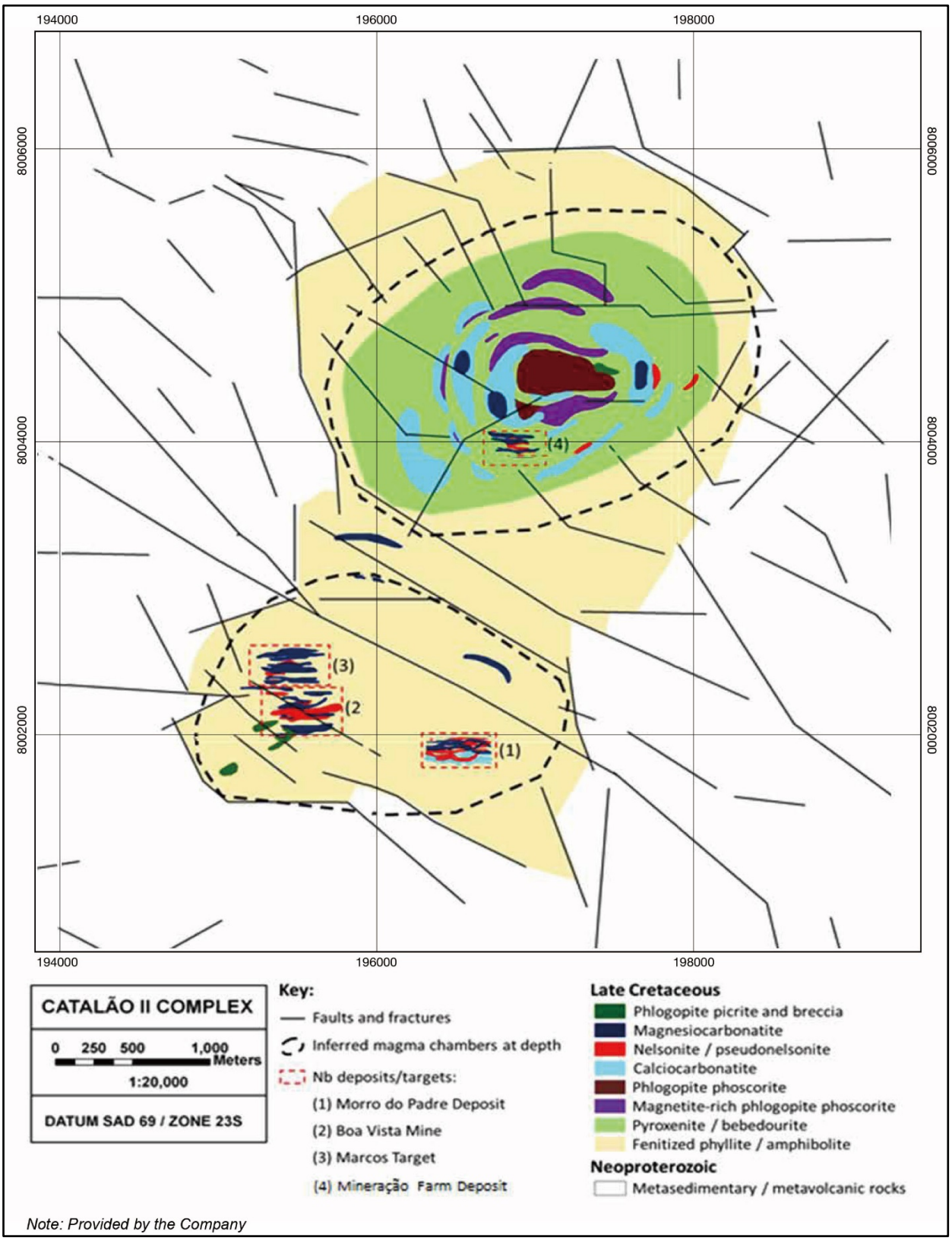
represent thicker nelsonite dykes that have been postulated to represent major feeders to the larger stockwork of nelsonite veins. Similarly, massive carbonatite intersections are also recorded within some drill holes; these occurrences however do not occur within about 100-200m of the present surface.

Both the Boa Vista and Morro de Padre deposit occur as pipe-like bodies consisting of sub-vertical major feeder structures that permit vertical passage of the deep-seated carbonatite magmas to shallower depths where the dykes split into a complex stockwork of veins and veinlets. The stockwork zones are approximately 270m (N-S) by 350m (E-W) and are considered to be a result of magma degassing in response to reducing confining pressures and the formation of multiple sets of tensional fractures by the expanding gas exsolving from the ascending magma. A direct consequence of this model is the higher density of veins close to the central feeder zones, with decreasing vein abundance with increasing distance from the feeder zones. The vertical extent over which niobium mineralisation has been identified to a depth approximately 600m, however the drilling density is significantly higher in Boa Vista.

Coqueiros

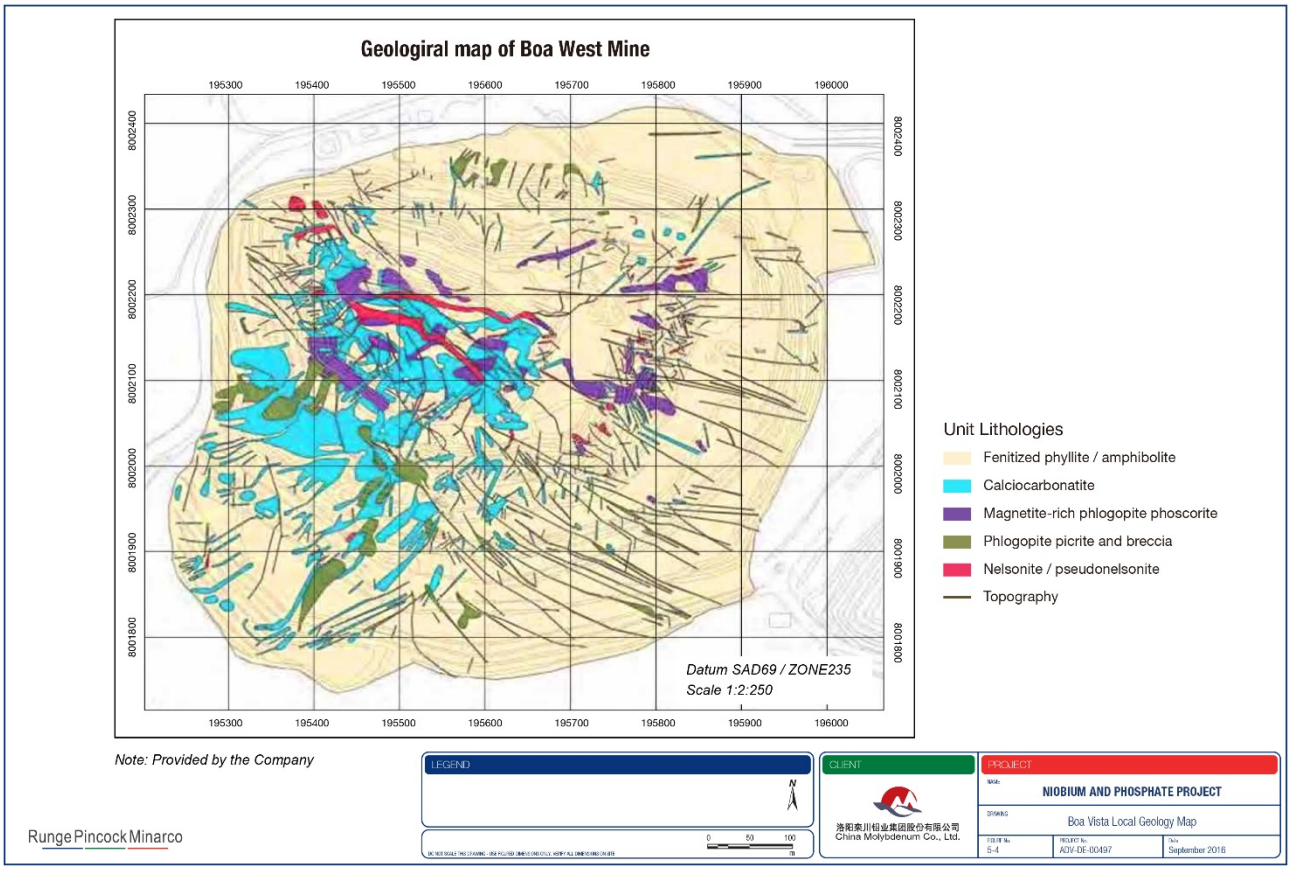
This area comprises a group of concentric zoned rocks from the core toward the borders: phlogopite apatite, magnetite phoscorite (and pyroxene phoscorite). Some late carbonatites are disrupting the early zonation. Subordinately early carbonatites and nelsonites are minor occurrences of picrite and syenite. Phosphate mineralisation is associated to the phlogopite apatitites and lateral phoscorites.

Figure 5-3 Catalão II Local Geology Map



Note: Provided by the Company

Figure 5-4 Boa Vista Local Geology



6. Data Verification

RPM conducted a review of the geological and digital data supplied by the Client to ensure that no material issues could be identified and that there was no cause to consider the data inaccurate and not representative of the underlying samples. RPM visited the Project in March 2016 and reviewed the Boa Vista Mine, Chapadão Mine, Area Leste and Mina II outcrops, drill-hole location and core sheds. RPM sighted some mineralised drill-hole intersections of all the phosphate and niobium deposits, down-the-hole survey and assay data, laboratory facilities, sampling and reviewed survey data acquisition protocols, assay procedures, bulk density determination, logging procedures and quality control (QC) results. RPM concluded that the data was adequately acquired and validated following industry best practices.

6.1 Drilling Types and Core Recoveries

Diamond drill-holes ("DDH") with drill core diameters of PQ (8.5 cm Ø), HQ (6.3 cm Ø) or NQ (4.8 cm Ø) were the preferred drilling method to define mineralisation within the Project since 2003. Information and samples from DDHs have been used to underpin resources estimation, geo-metallurgical, geotechnical and hydrogeological studies utilised in estimates reported in this Report. In Boa Vista, one extensive drilling campaign of 87,644 m (out of over 151,002 m of total drilling) used reverse-air-circulation drilling (RC). This RC drilling was used for classification purposes and grade control of the Boa Vista Mine.

RPM notes that only DDH with diameters of HQ and NQ were used as the source of the samples from which resource estimation was completed. PQ size core was used to obtain metallurgical testwork samples only. The drill-holes for geotechnical and hydrogeological studies used HQ size.

Typically core recoveries are higher in fresh rock, over 90% for all DDHs which RPM considers suitable; however, low recoveries were noted for the oxide zones. A further review by RPM indicates that the zones with low recovery are associated with intensely weathered intervals and are not considered material to the total Mineral Resource reported in this Report.

6.2 Topography and Collar Locations

The Company surveyed the topography of the Project based on airborne laser survey with an image resolution of 16 cm. A regional surface model was generated on a 100 m grid and subsequently 2 m contour lines were interpreted, however the grid was reduced to 50 m in the proximity of the projects. The open pit's topography utilised to deplete the estimate for mining was surveyed with a Laser Scan with a resolution of 50 cm. The surface maps are drafted in UTM coordinates using the projections WGS 84, PSAD 69 Zone 23S. In addition, the primary and secondary geodesic networks and azimuth points were geo-referenced, all in the WGS 84 system. RPM considers the topography suitable for use in a Mineral Resource estimate.

Since 2009, the Company undertook a survey of the drill-hole collar locations using the Laser Scan differential GPS equipment using the method of taking static differential data. RPM considers these methods suitable. RPM notes that for drilling completed prior to 2009, collar information is available however the methods used to locate these collar points are unknown and as such, the collar coordinates cannot be confirmed. As a result these drill-hole influences were limited in the resource classification as noted in ***Section 7.4***.

While RPM is aware that the Company undertook an internal re-survey of 1 in every 10 collars by separate operators, during the site visit RPM independently checked the collar location of the drill-hole CQP-97 (197,272E, 8,004,648N), with a handheld GPS and noted only small differences well within the error limit of the GPS. It was noted that within the Chapadão, Mina I and II, Area Leste, Boa Vista and Morro do Padre areas a large proportion of the drill hole locations are not available due to mining activities.

6.3 Down the Hole Survey

Since 2009, the Company utilised the DeviFlex method to measure deviations in azimuth and inclination angles for all the drill-holes. The Company determined deviations of both azimuth and inclination angles every 3 m in

the deeper holes, however since the majority of drill holes are shorter than 100 m and verticals, RPM consider the historical lack of down the hole surveying not to be material. Validations are considered to be in an acceptable range.

RPM considers the surveys procedures, controls and as a result drilling from 2009 onwards to be suitable. RPM notes that the majority of the deep holes have been completed since 2009.

6.4 Geological, Geotechnical, and Geomechanical Logging

The Company has developed (in 2009) logging and sampling procedures that have been continuously improved and have been subjected to external auditing that confirmed the processes and protocols implemented giving the results a high level of confidence.

During the site visit, RPM reviewed the geological logging for seven drill-holes, BV-527 in Boa Vista, MII-06 in Chapadão and Mina II, CB2 13-A and MII-044 in Mina II, CPQ-97 in Coqueiros, MP-10 in Morro do Padre and CBL-10 in Area Leste mine The geological staff demonstrated the logging process which matches with the resource database description. RPM recognizes the logs of these drill-holes are of a high quality.

RPM considers that the recorded information is sufficient to define a geological model that includes the Nb_2O_5, P_2O_5 mineralisation controls and also the deleterious CaO which was used to define phosphate domains. Logging records were received in digital format and were input into a GDMS database. RPM considers the procedure are of good practice. The core photographs, collar coordinates, down the hole surveys and assays were also received in digital format.

6.5 Bulk Density Determination

RPM reviewed the density determination procedures concluding that the historical procedures were poorly executed for Nb_2O_5 (Mina I, Area Leste and Boa Vista) and acceptably determined for P_2O_5 while the recent determinations (Boa Vista) were suitable for Nb_2O_5. Ground density determinations have been completed at Chapadão and Boa Vista for oxide material with density determinations from core samples have been undertaken within Boa Vista and Morro do Padre. While the bulk densities for niobium are considered poor in terms of procedures further reviews by RPM indicate that no material variations will occur on either a global or local scale. Furthermore, recent reconciliation using truck counts, monthly surveys and production throughputs etc in the plants by the Company and reviewed by RPM show reasonable comparisons. As such RPM considers the bulk density suitable for the classifications applied. Further details are provided below for reference.

RPM notes that there is limited density determinations within the Area Leste and Mina I deposits, however mining within Mina I and subsequent reconciliations used an average of 2.2 g/cu.cm until mining stopped in 2004 while Area Leste density used the average of Mina II (***Table 6-1***). No mining has been undertaken at area Leste and as such Inferred classification was applied, Since 2009, in Boa Vista and Morro do Padre, the Company has been undertaking bulk density determinations on 10 to 20 cm uncut HQ and NQ drill core every 2.5 m intervals resulting in a significant dataset. Density is determined by measuring the length and diameter of the core (volume = $\pi*R^2*h$) and weighing the 10-20 cm core on a weighing scale OHAUS Explore. Because the Company assumed that moisture is negligible in the fresh rock, density determination lacks a dryer stage which is not an industry standard practice; therefore, the density determinations used for resource calculations are on a wet basis. RPM opines that moisture may be low but not insignificant however will not results in a material difference.

In the case of the upper zone of the Nb_2O_5 mineralised system (which is mostly mined out in Boa Vista and Mina I and not applicable in Mina II), where the stringers of mineralised nelsonites is a minor proportion of the total volume of the rock, the waste-low grade lithologies (fenites and carbonites) were mostly selected for density determinations, which possibly results in the underestimation of the density of the total volume. Within Boa Vista and average density of 1.87 g/cu.cm for oxides, however it was estimated by Inverse distance squared for fresh rock. In Mina II, density was estimated by OK (***Table 6-1***). RPM highlights that only a small portion of the Boa Vista Mineralisation is remaining and predominately this is inferred.

Within the Chapadão deposit the density was determined by digging an approximately 30 x 30 x 30 cm hole in the exposed surface in Chapadão Mine. A total of 1,580 density determinations were recorded as at the date of the mineral resource. Dry and wet mass is determined of the material extracted from the 30 cm cube. The volume is measured filling the cube with water after the cube's walls are covered with plastic. The density was estimated by the ordinary kriging methods in the Chapadão block model in the mine area however an average density was assigned to the remaining blocks.

Density for the Coqueiros deposit was applied as the average of the Boa Vista data (which resulted in the lower classification applied ***Section 7.4***). Within the weathered zone the dry density of waste and mineralised rocks were defined as 1.8 g/cu.cm, and 2.5 g/cm^3 for the fresh rock.

Tables 6-1 Summary of density results.

Mine/Project	material	determination type	block model	
			Method	Value (g/cm^3)
Mina I	oxide	-	Average	2.2
Mina II	fresh rock	core	Ordinary Kriging	-
Area Leste	fresh rock	-	Average of Mina II	3.12
Boa Vista	oxide	ground	Average	1.87
	fresh rock	core	ID2	-
Chapadão	oxide	ground	Ordinary Kriging	-

Source: Unit Costs Provided by the Company

6.6 Sampling and Sample Preparation

For drilling prior to 2009, there is no information available on the sample preparation protocols for the drilling campaigns, however RPM reviewed the post 2009 sampling and sampling preparation protocols and procedures and considers that they were suitably executed to minimize the standard error. RPM notes that subsequent to cutting of core and placing of half core into sample bags all sample preparation and assay determinations works have been conducted by the internal Laboratory in Catalão facilities. The analytical protocol used for both Nb_2O_5 and P_2O_5 is described in ***Table 6-2***.

Table 6-**2** Analytical Method used in the Project

Determinations	Protocol	Description
Nb_2O_5, P_2O_5, Fe_2O_3, TiO_2, MnO_2,SiO_2, Ta_2O_5, BaO, PbO, ThO_2, U_3O_8, $Al2O_3$, CaO, and MgO	PNB.05.101.001.009	The entire pulp (50-100 g) is dried for 20 min to 80°C.
	PNB.05.101.001.003 / PNB.05.101.001.002	3 g of tetraborate of lithium and 10 g of oxide of molybdenum are added to 0. 5 g of sample and then the blend is melted to 1,100°C generating a tablet
	XFR	The tablet is analysed by XFR.

*** Compouns analyzed by XFR: P2O5, Nb2O5, Fe2O3, TiO2, MnO2, SiO2, Ta2O5, BaO, PbO, ThO2, U3O8, Al2O3, CaO, MgO.*

6.7 Quality Assurance Quality Control

Since 2009 the Company has conducted a detailed QA/QC program to provide verification of the sample procedure, the sample preparation and the analytical precision and accuracy. A total of 32% of the total samples were control samples which included the following:

- Primary coarse duplicates: Generated in the first splitter and inserted 5%.
- Coarse blank samples: Inserted 1 in every 20 samples.
- Secondary coarse duplicates: Generated during the second splitter and inserted 1 in every 20 samples.
- Pulp duplicates samples: Generated during the third mass reduction and inserted 1 in every 20 samples.

- Pulp blank samples: Inserted preceded the coarse blank sample.
- Standard Reference Material (SRM) samples: Inserted 1 in every 20 samples.
- Internal Check samples: 2.2% of Boa Vista pulps and 3.5% of Chapadão pulps were re-assayed.

RPM has reviewed all supplied the QAQC data since 2009 and concluded the following:

- **Blanks:** a minimum level of sample contamination by P_2O_5 was detected during the sample preparation and assay.
- **Duplicates:** the analytical precision is within acceptable ranges when compared to the original sample, i.e. , more than 90% of the pairs of samples are within the error limits evaluated for a maximum relative error of 10% (R>0.90).
- **Standard Reference Material:** the analytical accuracy was also within acceptable ranges for the oxides P_2O_5 and Nb_2O_5 because the bias values were below the standards. Some biases were observed for other oxides, e.g., CPB-1 CaO had somewhat high bias but was still within an acceptable range. No information is known about the QA/QC procedures used in campaigns conducted before 2009.

For all data in the campaigns post 2008, RPM considers the insertion rate, 32% in Chapadão and 15% in Boa Vista, better than the industry standards for control sample preparation and laboratory assay accuracy and precision. Furthermore, RPM considers the results of the controls samples are within the acceptability limits in coarse-pulp duplicate, reference samples, and internal laboratory checks. RPM opines that external checks should be incorporated into the QC protocol. Additionally, RPM recognized a low positive bias in the reference samples but all the results still are within the acceptability limits.

Given the limited information available pre-2009 as part of the QAQC program the Company re-assayed all of the available samples for the historical drilling which included 4,781 of 8,603 in Chapadão and 6,370 of 9,348 in Mina I and II which RPM considers to be suitable to underpin a resource estimate. It is noted that Area Leste consists of historical drilling and re-assays should be completed as a result the Inferred classification was applied (see ***Section 7.4.2***). All DHH holes were utilised in the resource estimate, however weighting for the classification varied based on the available QAQC data, as outlined in ***Section 7.4***.

6.8 Data Quality Review

The review of the drilling and sampling procedures indicates that international standard practices post 2008 were utilized with no material issues being noted by RPM. The QA/QC samples all showed suitable levels of precision and accuracy to ensure confidence in the sample preparation methods employed by the Company and primary laboratory. RPM also notes that the majority of the samples used for the resource estimation are derived from drilling from post 2008 or campaigns with re-assays and therefore RPM considers the data which supports the resource estimation to have no material sample bias and is representative of the samples taken. RPM highlights that deposits which were estimated based entirely on samples collected prior 2009 were classified as Inferred Resources (***Section 7.4.2***).

The selective original data review and site visit observations carried out by RPM did not identify any material issues with the data entry or digital data. In addition RPM believes that the onsite data management system meets industry standard which minimizes potential 'human' data-entry errors and no systematic fundamental data entry errors or data transfer errors; accordingly, RPM considers the integrity of the digital database to be sound.

In addition, RPM considers that there is sufficient geological logging and bulk density determinations to enable estimation of the geological and grade continuity of the deposit to accuracy suitable for the classification applied (***Section 7.4.2***).

6.9 Sample Security

All drilling activities have been undertaken by contractors independent of the Client. Due to the style of drilling undertaken within the Project the Client's personnel have mostly undertaken core sample handling. The sample security measures undertaken include the following:

- From 2009, samples for the Mineral Resource estimates have been derived from surface diamond drilling. The independent drilling crews are responsible for delivering the core to the core shed, the Company's personnel are responsible for cutting the core and placing the cut core in bags for delivery to the preparation laboratory facilities which is also managed by the Company's Geology Department. Together with the cores, the geology staff provide to the laboratory, a report with the amount and the numbers of samples and sample tickets to each core is provided. After preparation, two pulps for each sample are obtained and control samples inserted prior to the samples within the batch being renumbered. Batches are sent to the analytical laboratories with a report detailing the analysis method required for each element. Chain of custody is kept all the time by the Company personnel.
- RPM notes that, although the Company's personnel are responsible for handling the core during the sampling process, all personnel are supervised by senior site geologists and geotechnicians. In addition, photos are taken of all core trays prior to sampling. Core is clearly labelled for sampling, a suitable paper trail of sampling can be produced and duplicate samples are taken to ensure no sample handling issues arise. Half core rejects, core rejects and pulps are appropriately stored inside the core shed and are available for further checks.

RPM considers these procedures to be industry standard and regards the sample security and the custody chain for the post 2008 programs to be adequate.

6.10 Data Verification Statement

The review undertaken by RPM of the drilling and sampling procedures indicates that generally, international standard practices were utilized with no material issues noted, with the exception of the potential bulk density risk. The QA/QC samples all showed suitable levels of precision and accuracy to enable confidence in the primary laboratory. RPM also notes all of the majority of samples used for the resource estimation were derived from drilling from post 2008 or were re-assayed to meet the QA/QC standard post 2008. RPM considers that the data which supports the resource estimation has no material sample bias and is representative of the samples taken.

7. JORC Mineral Resources

Mineral Resources have been independently reported by RPM in compliance with the recommended guidelines of the JORC Code (2012).

7.1 Mineral Resource Classification System under the JORC Code

A "Mineral Resource" is defined in the JORC Code as **'**a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality) that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories**. '**

Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results.

For a Mineral Resource to be reported, it must be considered by the Competent Person to meet the following criteria under the recommended guidelines of the JORC Code:

- There are reasonable prospects for eventual economic extraction.
- Data collection methodology and record keeping for geology, assay, bulk density and other sampling information is relevant to the style of mineralisation and quality checks have been carried out to ensure confidence in the data.
- Geological interpretation of the resource and its continuity has been well defined.
- Estimation methodology that is appropriate to the deposit and reflects internal grade variability, sample spacing and selective mining units.
- Classification of the Mineral Resource has taken into account varying confidence levels and assessment and whether appropriate account has been taken for all relevant factors i.e. relative confidence in tonnage/grade, computations, confidence in continuity of geology and grade, quantity and distribution of the data and the results reflect the view of the Competent Person.

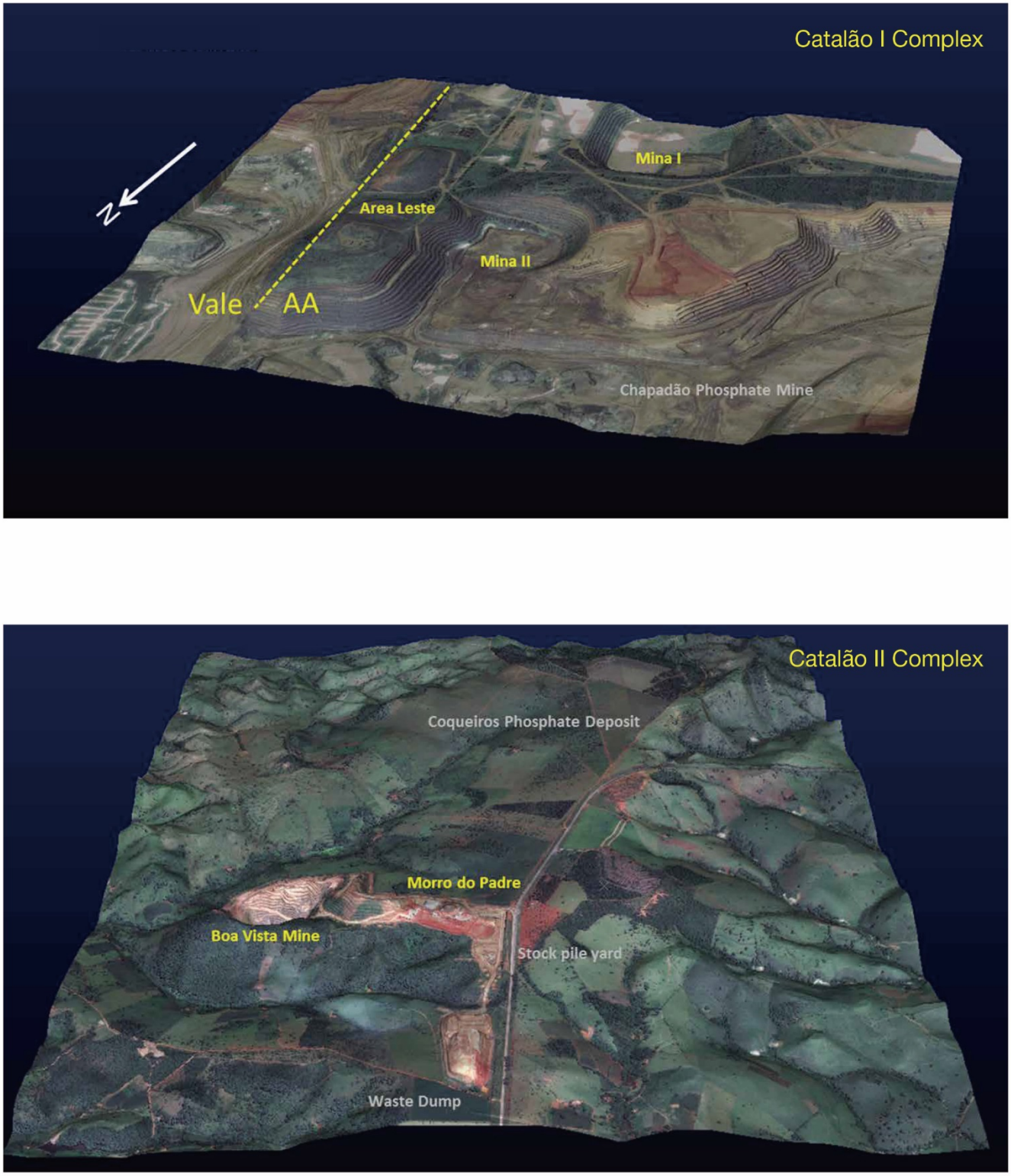
7.2 Area of the Resource Estimation

The deposits, which form part of the Mineral Resource estimates, are located approximately 260 km south of Brazilia and approximately 20 km ENE of Catalão. The Project consists of several exploration and mining rights under the Brazilian mining code with six mining concessions and two exploration permits currently held by the Company. These six mining concessions are; 75. 178 (MCG-01, 87 (Area 5), 85 (FFG-01) 801244 / 1968 (MCG-0011), 803343 / 1983 (MCG-002), 804513 / 1968 (Area 5) and are shown graphically in ***Figure 3-1.*** RPM notes that the Reported Mineral Resources (***Table 7-1***) include the following areas:

- ***Boa Vista Open Pit deposit*** – The resource area is contained within the Catalão Complex II and consists of oxide and fresh rock Nb_2O_5 mineralisation defined to a depth of100 m, however significant mineralisation occurs at depth.
- ***Boa Vista Under Ground Deposit*** – The resource are is directly below the open pit resource area and has been defined to the depth of approximately 600 m.
- ***Chapadão Open Pit deposit*** – The resource area is contained within the Catalão Complex I and consists of oxide P_2O_5 mineralisation defined to a depth of 100 m.
- ***Mina I Open Pit deposit*** – The resource area is contained within the Catalão Complex I and consists of oxide Nb_2O_5 mineralisation.
- ***Mina II Open Pit deposit*** – The resource area is contained within the Catalão Complex I and consists of oxide (very minor) and fresh Nb_2O_5 mineralisation.

- ***Mina II Underground Deposit*** - The resource are is directly below the open pit resource area and has been defined to the depth of approximately 300 m (***Figure 7-4***).
- **Area Leste *Oxide Open Pit deposit***– The resource area is contained within the Catalão Complex I and consists of oxide Nb_2O_5 mineralisation.
- **Area Leste Underground deposit** - The resource are is directly below the open pit resource area and has been defined to the depth of approximately 300 m
- ***Phosphate Tails containing Niobium*** – approximately 15% of the Niobium recovered mass processed at the phosphate plant is recovered in the tailing plant.

Figure 7-1 Resource Estimate Area. Top Catalão Complex I, Bottom Catalão Complex II



Note: Provided by the Company

7.3 JORC Statement of Mineral Resources

Results of the independent Mineral Resources estimate for the Project are tabulated in the Statement of Mineral Resources in ***Table 7-1*** below, which are reported in line with both the requirements of the 2012 JORC Code and the reporting standards of Chapter 18 of the HKEx Listing Rules. The Statement of Mineral Resources is therefore suitable for public reporting. The Statement of Mineral Resources shown in ***Table 7-1*** and ***Table 7-2*** and graphically in ***Figure 7-2*** are inclusive of the Ore Reserves reported in ***Section 8***. RPM notes that quantities and grade ***Table 7-1*** are inclusive of those in ***Table 7-2*** and are not in addition.

Table 7-1 Statement of Mineral Resources by Complex as at 30th June, 2016 Reported at various Cut-off grades.

Complex	Project	Material Type	Cut-off (%)	Category	Quantity (Mt)	Nb_2O_5 (%)	P_2O_5 (%)	Nb_2O_5 (kt)	P_2O_5 (kt)
Catalão I	Chapadão	Oxide	6	Measured	75.3		13.2		10,000
				Indicated	226.5		11.9		27,000
				Inferred	65.1		9.9		6,500
				Sub-Total	366.8		11.8		43,400
	Mina I	Oxide	0.5	Measured					
				Indicated	7.9	0.97		76.6	
				Inferred	5.5	0.92		50.6	
				Sub-Total	13.4	0.95		127.2	
	Mina II	Fresh Rock OP	0.5	Measured	0.1	1.19		1.1	
				Indicated	3.2	1.19		37.7	
				Inferred	2.6	1.06		27.8	
				Sub-Total	5.9	1.13		66.7	
		Fresh Rock UG	0.67	Measured					
				Indicated					
				Inferred	2.2	1.07		23.2	
				Sub-Total	2.2	1.07		23.2	
		All		Total	8.1	1.12		89.9	
	Area Leste	Oxide	0.67	Measured					
				Indicated					
				Inferred	2.7	1.07		28.9	
				Sub-Total	2.7	1.07		28.9	
		Fresh Rock UG		Measured				0	
				Indicated				0	
				Inferred	13	1.22		158	
				Sub-Total	13	1.22		158	
		All		Total	15.7	1.19		186.9	
Catalão II	Boa Vista	Oxide	0.5	Measured	0.3	0.86		2.4	
				Indicated	0.1	0.74		1	
				Inferred	1.3	0.83		10.8	
				Sub-Total	1.7	0.83		14.2	
		Fresh Rock OP		Measured				0	
				Indicated	27.1	0.95		258	
				Inferred	13.1	1.06		138.2	
				Sub-Total	40.2	0.99		396.1	
		Fresh Rock UG	0.58	Measured					
				Indicated	0.2	0.89		1.5	
				Inferred	6.3	1.24		78	
				Sub-Total	6.5	1.23		79.5	
		All		Total	48.4	1.01		489.9	
Phosphate Tailings		na	na	Measured	30.8	0.7		215.6	

Note:
The Statement of JORC Mineral Resources has been compiled under the supervision of Mr. Esteban Acuña who is a full-time employee of RPM and a Registered Member of the Chilean Mining Commission. Mr. Acuña has

sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.
All Mineral Resources figures reported in the table above represent estimates at 30tht June, 2016. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).

The Statement of Open Pit Mineral Resources have been constrained by the topography and a pit which was generated with Measured, Indicated and Inferred resources and at a phosphate and niobium prices of USD 320.72/t and USD 40.93 per kg. The open pit cut off grades and prices were based on the Ore Reserves mining study as outlined in ***Section 9***. RPM notes that the cut off grades for both niobium and phosphate are restricted by metallurgical recoveries of the plants (as outlined in ***Section 9***) rather than the breakeven price.

Underground resources of Boa Vista, Mina II and Area Leste were constrained within sublevel stope designs based on average mining cost of USD 33/t ore and process costs and metallurgical recoveries of the fresh material within the fresh plant. The average mining costs applied to the complete the stope optimizations and designs were sourced from RPM's internal database and are considered to be high level costs and are not first principal costs or itemized to reflect the potential operation.

All material reported in the underground resource is fresh, and while no metallurgical testwork has been completed, similar mineralisation styles have been intersected to those fresh, mined and processed within the current boa vista and historical Mina II open pits. It likely that this material will have similar metallurgical properties, costs and recoveries through the current operating concentrator and pyro-metallurgical plants. As such RPM considers the current plants can be utilised limiting the CAPEX significantly required to commence operations.

While a detailed schedule and option analysis has not been completed to confirm the optimal mining method, given the sub vertical continuous style of mineralisation within a single pipe like body within the underground resource areas, sub level stoping is likely to be appropriate, pending the option analysis. Additional mining design and more detailed and accurate cost estimate mining studies and testwork are required to confirm viability of extraction.

RPM notes that these stope designs were completed to report the resource contained within to demonstrate reasonable prospects for eventual economic extraction and highlights that these designs do not constitute a scoping study or a detailed mining study which along with additional drilling and testwork, is required to be completed to confirm economic viability. It is further noted that in the development of any mine it is likely that given the location of the deposit (***Figure 7-1***), the current plants, surface infrastructure including transport, power, water and administration could be utilised significantly decreasing start up CAPEX requirements. RPM notes that underground CAPEX is require and is not included in the mining costs assumed. RPM has utilised the operating costs and recoveries along with the niobium price noted above in determining the appropriate cut off grade. Given the above analysis RPM considers both the open pit and underground resource demonstrates reasonable prospects for eventual economic extraction, however highlights that additional studies and drilling is required to confirm economic viability.

The niobium contained within the phosphate tailing (15% of total phosphate tails) as noted in ***Table 7-1*** is processed within the tailings Niobium concentrator (TA) (see ***Section 10***). This material is considered a byproduct from the processing of the phosphate ores from the Chapadão pit with the tailings material produced from the two phosphate concentrators located at Catalão I. RPM notes that given the low grade nature of the Niobium mineralisation within the phosphate mineralisation it is not economical as a niobium only feed to the niobium concentrator (nor would this allow processing of the phosphate ore). As such RPM has reported the Mineral Resources from this material as at the concentrator tails separation point. The material is estimated based on the volume produced and processed per year (1.1 Mt) and an average grade of 0.7% based on historical production records and expected continued recoveries as outlined in ***Section 10***. During the 2nd quarter of 2016 a total of 323 dry kt was processed by the tailings plant which is in advance of the proposed 1.1 Mt per annum (and in line with previous months), however the average grade was slightly lower than the LOM

plan at 0.6% Nb_2O_5. This slight decrease was due to the area in which mining was occurring which contained lower niobium grades, and in line with the forecast production. This grade is expected to increase to an overall average grade on 0.7% Nb_2O_5 over the LOM of the project to 2041 (for niobium). RPM highlights that this is expected with some areas of the Chapadão mine having lower (and higher levels) of niobium and short term variability is expected due to the style of mineralisation. The average grade applied is based on the expected and forecast LOM average as well and historical production and importantly the mass recovery within the fines portion of the tails.

Figure 7-2 In-Situ Mineral Resource Tonnes by Classification and Deposit

Note: Excludes Tails Material

7.4 Estimation Parameters and Methodology

While ***Table 1*** as required by the JORC Code 2012 edition is presented in ***Appendix B*** for reference a summary of the resource estimate parameters are provided below.

- No metal equivalence has been utilised in the estimation of the Mineral Resources
- The geologic interpretation models consist of a set of 3D solids one for each interpreted rock type such that the metal content was estimated considering the proportions of the geologic interpretation in each block. This method incorporates dilution into the block estimates. Different methods were used to build the solids for the various deposits:
  - 0.35 and 0.5% Nb_2O_5 by implicit modelling in Boa Vista,
  - 0.3 - 0.5% wireframes in Morro do Padre, Mina I and Mina II,
  - 6% P_2O_5 wireframe for Chapadão, and
  - Probabilistic limit (by indicator kriging) at thresholds 0.7% Nb_2O_5 in Area Leste.
- The contacts were considered as hard boundaries such that the metal content was estimated considering the proportions of the geologic interpretation in each block. Based on the gradational spatial variation of grades, RPM considers that dilution is estimated within each block which were 30x30x20 m.
- Drilling which was included in the estimates has been conducted on a variety of spacing using surface diamond core from post 2008 programs. Surface drilling was generally conducted on larger spacing from 100m by 100m to 10 by 10m drilling spacing to define the Nb_2O_5 resource and from 200 by 200m to 35 by 35m to define P_2O_5 resources. ***Figure 7-3*** graphically shows the drilling for the Boa Vista deposit while ***Figure 7-4*** and ***Figure 7-5*** show the drill hole locations for Chapadão.
- Within each deposit, the spatial grade variability was modeled using variograms. Experimental semivariograms, correlograms and Gaussian variograms (for Boa Vista) were estimated using GSLIB and Isatis software based on the 2.5 – 5 m composites for oxide and fresh rock estimation domains and compounds P_2O_5, Nb_2O_5, CaO, Fe_2O_3, SiO_2, and BaO and metallurgical variables.
- Niobium variogram models are summarised in the ***Table 7-3***, while phosphate variogram models are provided in the ***Tables 7-4***.

Table 7-2 Niobium Variogram Models**.**

Deposit	Zone	Variograms Parameters						
		C0	C1	Range (m) Mj/Sm/Mn	C2	Range (m) Mj/Sm/Mn	C3	Range (m) Mj/Sm/Mn
Boa Vista	Oxide	0.15	0.65	5/5/10	0.10	50/50/70	0.20	180/110/∞
	Fresh	0.35	0.32	10/6.8/10	0.11	80/22/15	0.21	70/145.7/150
Mine I	Oxide	0.05	0.25	20/20/10	0.35	50/40/25	0.35	400/300/200
Mine II	Oxide	0.20	0.35	10/10/8	0.35	20/20/23	0.10	50/50/60

Table 7-3 Phosphate Correlogram Models.

Deposit	Zone	Variograms Parameters						
		C0	C1	Range (m) Mj/Sm/Mn	C2	Range (m) Mj/Sm/Mn	C3	Range (m) Mj/Sm/Mn
Chapadão	Oxide	0.05	0.35	20/20/10	0.35	40/30/40	0.25	350/400/130

- The Mina I, Mina II and Area Leste deposits niobium estimates were undertaken using the ordinary kriging grade interpolation method ('OK") through a number of passes each with different search radius and parameters. First pass parameters were defined with a minimum of 5 composites and maximum and 25 composites inside a search ellipsoid with a radium of 30 x 30 x 30 m.
- The Boa Vista oxide Nb_2O_5 estimate was undertaken using OK through a number of passes each with different search radius and parameters. For Boa Vista oxide, first pass sample configuration was defined

with a minimum of 3 composites and a maximum of 24 composites within an ellipsoid with a radius of 120 x 120 x 80 m. The Boa Vista's fresh rock, estimates were undertaken using the non-linear method due to the discrete nelsonite vein style mineralisation. Uniform Conditioning was selected which predicts the grade distribution of a large block (panel) conditioned to the estimated mean grade. The parent block size was 30 x 30 x 20 m panels which was selected to enable a local conditionally unbiased mean, with a large search using 95 composites. The oxide boundary was considered a hard boundary, while due to the gradational style of mineralisation the domain boundaries were considered soft for estimation., With the unbiased mean and the block grade distribution, change of support using hermite polynomial coefficients were applied to obtain the grades in SMU block size by using a linear estimate of the SMU grades to predict the likely locations of the high, low grades and waste. This was based on algorithms with parameters based on the variogram analysis completed. Following estimation the proportion of the panel above the cut off grade and was estimated. This estimation method includes the internal dilution.

- The Chapadão phosphate estimate was undertaken using the OK through a number of passes each with different search radius and parameters. First pass parameters were defined with a minimum of 10 composites and maximum of 25 composites inside a search ellipsoid with a radius of 120 x 12 x 15 m. Dilution has been incorporated in the Chapadão resource block model.
- The statistical review indicated that there were not outliers to the grade distributions, as a result no high grade cuts were applied. RPM opines that is not material given the grade distributions of both Nb_2O_5 and P_2O_5, however recommends this be reviewed as part of the future updates.
- In all the domains in each deposit, second and third passes were executed to complete the block estimation increasing the search radius and reducing the minimum composites.
- Bulk densities were estimated using the ID^2 method based on the data within the Boa Vista deposit while the densities for the Mina I and Area Leste deposits were assigned by material type as shown in ***Table 6-1***. The densities for the Mina II and Chapadão deposits were estimated with OK.

7.4.1 Validation

To validate the block models RPM visually compared estimated and composite grades observing a high coincidence between them. Additional to this, swath plots of niobium and phosphate within Boa Vista oxide, Morro do Padre, Mina I, and Mina II estimate were compiled and reviewed. RPM concluded that the comparison between the block estimates and composites were within the acceptable range and the estimations have an appropriate level of smoothing for the style of mineralisation. RPM considers that the sample configuration estimations are suitable and the results unbiased with respect to the composites (nearest neighbor) and incorporate minimal smoothing.

Chapadão phosphate deposits analysis using swath plots indicated that the estimate has an appropriate level of error-smoothing and as such RPM considers the estimates to be suitable for the classification applied.

7.4.2 Classification

To report the Mineral Resources and be consistent with the JORC requirement of '*Reasonable Prospects for Eventual Economic Extraction'* RPM constrained the block estimates by the topography and an economic pit which was estimated with Measured, Indicated and Inferred resources and at a phosphate and niobium prices of USD 320 per tonne and USD 40.93 per pound respectively. Metallurgical recoveries and costs were set as per the Ore Reserve statements as outlined in ***Section 8***.

A scorecard system that weights the following factors, drilling spacing, density measurements, metallurgical sampling, slope regression, historical data and surveying along with kriging passes was utilised to classify resources within open cut areas of the Chapadão, Mina I and Mina II while the drill hole spacing was utilised for the remainder of the deposits.

Table 7-4 and Table 7-5 outline the parameters which were utilised for the niobium and phosphate projects to determine the potential classifications.

Figure 7-3 Boa Vista Drill Plan

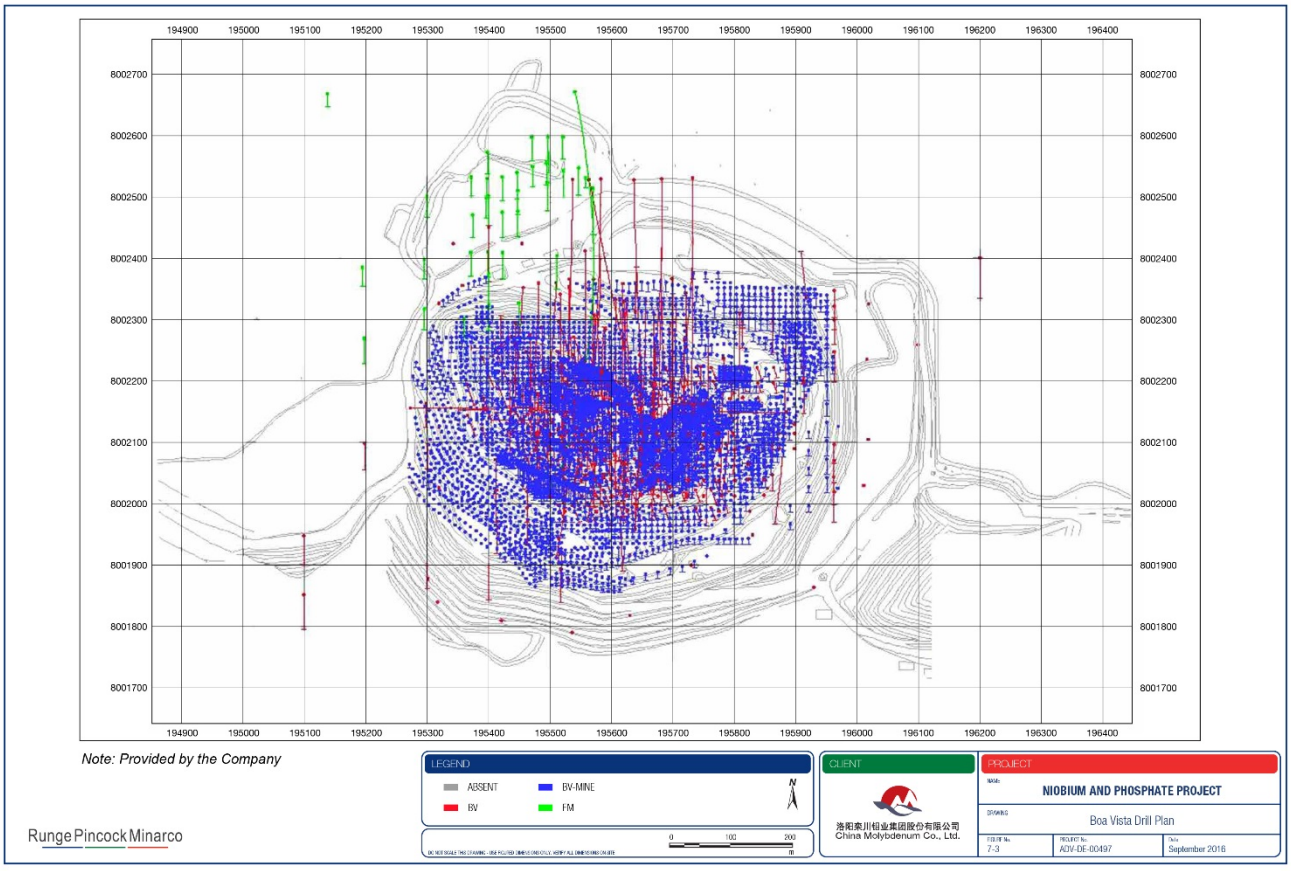


Figure 7-4 Chapadão Drill Plan

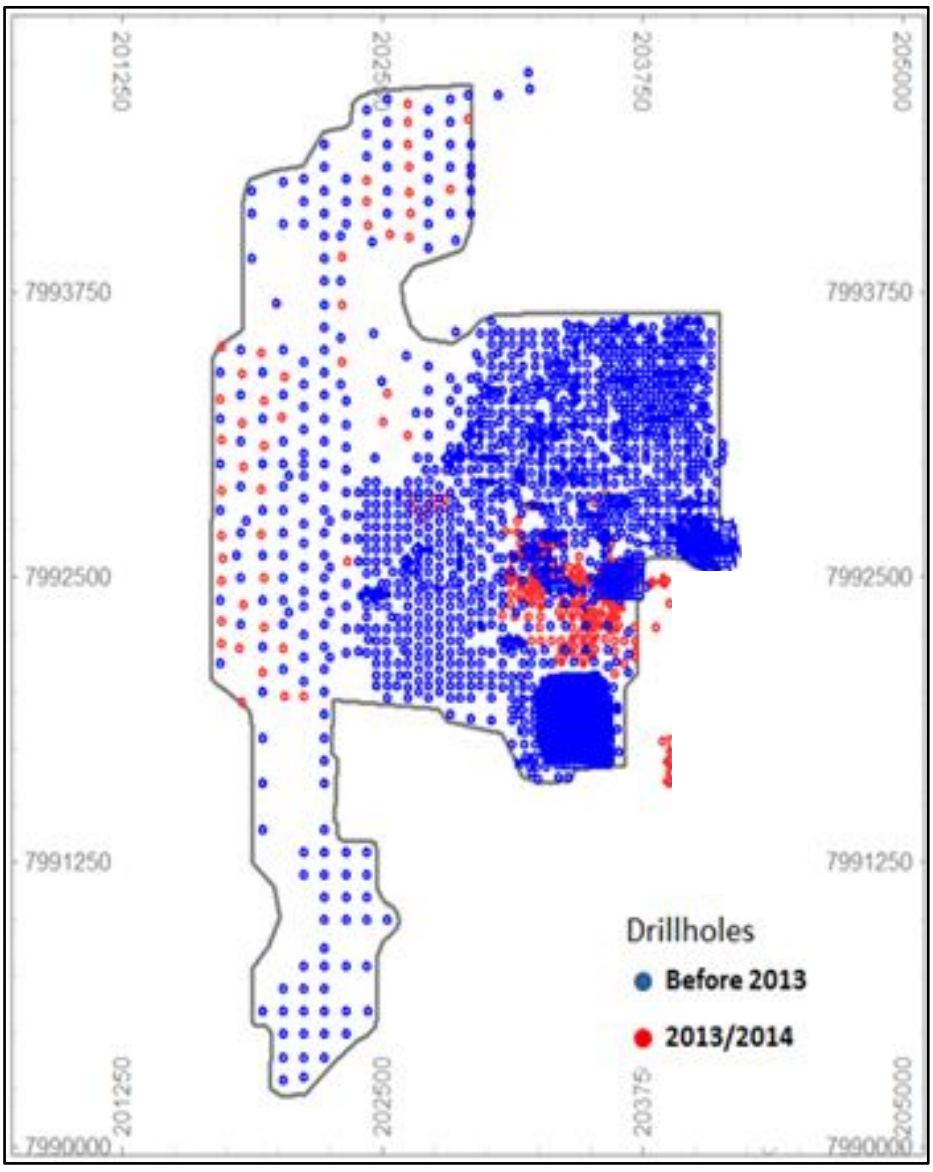


Table 7-4 Classification methods used for Niobium and Phosphate Block Models.

	Method	Measured	Indicated	Inferred
Chapadão	Scorecard	> 350	230 – 350	< 230
Boa Vista	DH spacing	10 x 10	50 x 25	> 50 x 25
Mina I	Scorecard	> 350	230 – 350	< 230
Mina II	Scorecard	≥ 400	300 – 400	< 300
Area Leste	Kriging passes	1st	2nd - 3rd	

Because the scorecard takes into account the geological and grade continuity, the quality of the data and metallurgical parameters, RPM opines that the scorecard method was appropriate for classification of Measured, Indicated and Inferred Mineral Resources. RPM further opines this classification is compliant with the recommended guidelines of the JORC Code 2012 for all compounds. RPM considers that the drilling spacing used in Boa Vista are acceptable to define Measured, Indicated and Inferred Resources. RPM considers that Area Leste classification method needs to be updated to the scorecard however no material changes would result.

RPM notes that the scorecard weighting utilised to report the resource for Chapadão within this report varies from that utilised by the Company. This results in an increase in the Indicated and Measured classification. The key changes include the weight of historical data, which was increased to avoid defining Measured and Indicated resources with just historical data.

Table 7-5 Scorecard classification parameters

Ítem	Chapadão				Mina I				Mina II			
	Weight	Rating 1	3	5	Weight	Rating 1	3	5	Weight	Rating 1	3	5
Drilling grid (m)	35	>100m		≤50	30	>50		≤25	30	>50		≤25
Density Nos	10	avg	OK passes 2 and 3	OK pass 1	25	avg	OK passes 2 and 3	OK pass 1	25	avg	OK passes 2 and 3	OK pass 1
Metallurgical samples (%)	10	< 70		≥ 90	15	≤ 30		≥ 90	-			
Slope Regression	20	< 0.6		≥ 0.9	15	< 0.6		≥ 0.9	20	< 0.6		≥ 0.9
Historical data (HD)	25	≥ 30%		< 10%	15	≥ 30%		< 10%	15	≥ 10% HD	> 50% re-assay	< 10% HD & < 50% re-assays
Survey Data					-				10	No survey DH	Few Inclined DH	Some Inclined DH

7.5 Exploration Potential

Exploration has been undertaken over numerous generations over the last decades with the main focus on the two complexes for which Mineral Resources have been estimated. Although the area has a long history of exploration, RPM considers there to be good potential to define further mineralised bodies within the Project area both near planned mining infrastructure and within the broader exploration concession.

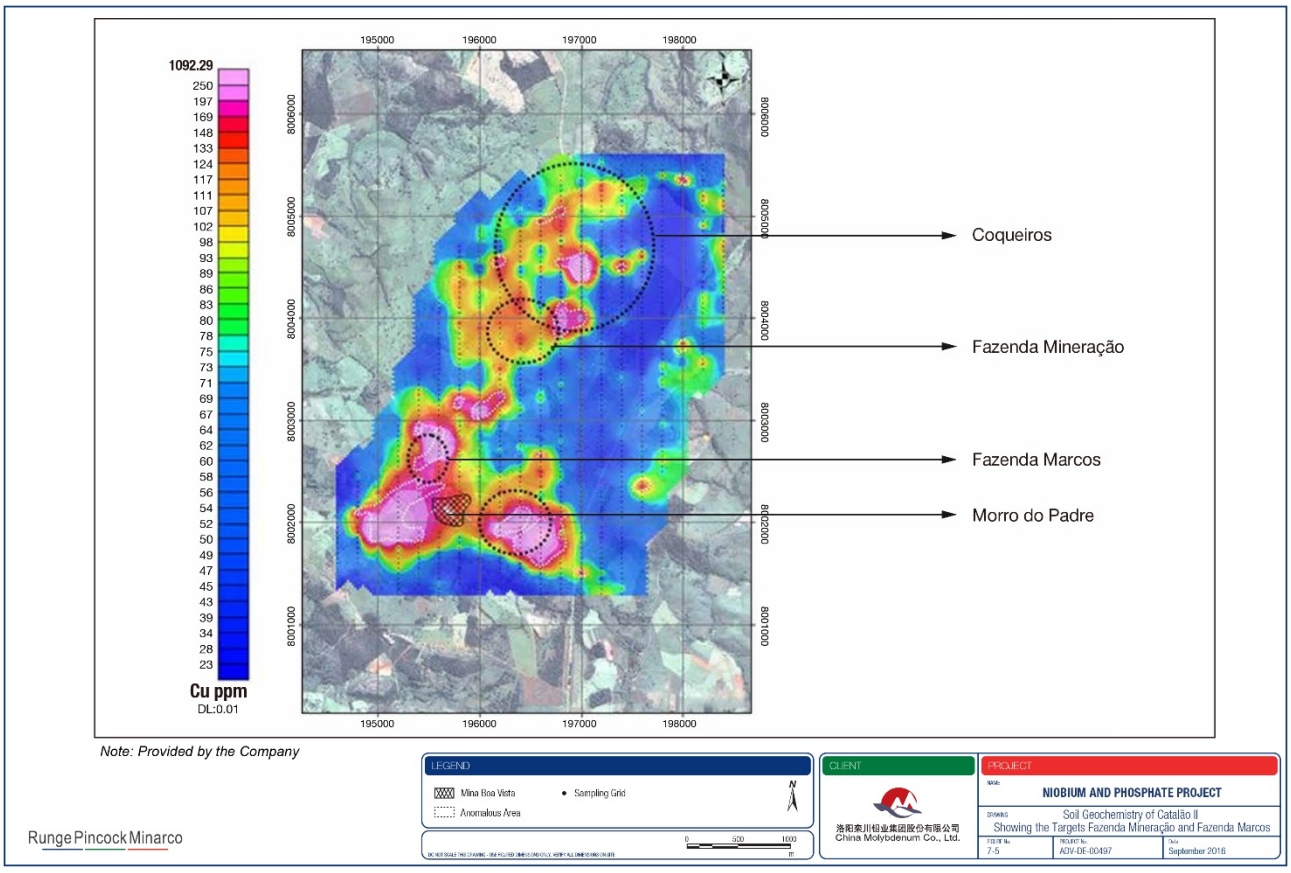
Following a review of the data RPM considers there to be potential for the identification of further bodies of economic interest within the concession area of Catalão I and II. RPM notes that the concession held by the Company have been explored effectively using modern systematic exploration, with much of the recent exploration focusing on the two main defined Phosphate Mineral Resources and the five main defined Niobium Mineral Resources. As such RPM considers there to be a number of targets which present opportunities to increase the resource base and add feed sources to the plant and add to the mine life, these include:

- **Inferred material:** Within the current final pit designs a total of 76.5 Mt for the phosphate and 4.3 Mt for the niobium of "inferred" Mineral Resources have been reported. These Mineral Resource have not been included in the Ore Reserves estimate as per the requirement of the JORC Code and the current Ore Reserve schedule, as presented in this Report, attributes a waste mining cost to this material with no revenue from the contained metal. RPM considers there is high likelihood that geological confidence can be increased through additional exploration or production drilling which will result in large portions of this material being upgraded to Indicated and included as part of future Ore Reserve estimates.
- RPM highlights that using the cost profiles and modifying factors applied in the mine design and production schedule these Mineral Resources show '*Reasonable Prospects for Eventual Economic Extraction'.* If adequate tails storage is available, this material presents a significant opportunity to substantially decrease the strip ratio thereby potentially increasing the economic value of the Project. RPM considers that if a drilling program can successfully upgrade the classification level of the currently defined Inferred to Indicated Mineral Resource, then the mine life can be extended.
- **Regional Niobium Exploration Targets:** The mineralisation style observed within the Project commonly results in multiple separate bodies which cluster in regions occurring along or around regional intrusive bodies and/or structural planes. This is consistent with the mineralisation observed within the Project. Although the focus of the recent exploration has been on the main mineralised areas, additional priority targets have been identified. . Further work is required and additional work may not result in the definition of economic mineralisation.
- Exploration has delineated niobium mineralisation in the fresh rock below the oxide material at Mina II, Area Area Leste, Boa Vista Mine and at the Morro do Padre deposit. While this mineralisation requires further delineation to define mineral resources RPM considers these areas to have a high potential to host significant mineralisation.
  - ***Boa Vista deposit*** – The fresh material directly below the reported resource and is an extension defined by a number of holes (directly below the current resource) as well as a hole at depth. This prospect would require underground mining methods.
  - ***Mina II deposit*** – The fresh material directly below the reported resource and is an extension defined by a number of holes (directly below the current resource) as well as a hole at depth which consists of 142 m @ 0.8% Nb_2O_5 as shown in ***Figure 7-5***. This prospect would require underground mining methods.
  - **Morro do Padre deposit** – The exploration area is contained within the Catalão Complex II and consists of oxide (very minor) and fresh Nb_2O_5 mineralisation;
  - **Area Leste** - The fresh material directly below the reported resource and is an extension defined by two hole at depth which consists of approximately 150m @ 0.9% Nb_2O_5. This prospect would require underground mining methods.
  - **Mineração Farm:** Located to the south of the Coqueiros deposit (***Figure 7-5***) this target has had limited exploration work completed on it to date. Geophysical surveys and geological mapping indicated similar geological setting to the main zones of niobium mineralization already defined.

Six drill holes have identified the occurrence of niobium in fresh rock and 15 drill holes have identified the occurrence of niobium in the oxide zone. This prospect is likely amenable to open cut methods.

- **Coqueiros**: RPM notes that exploration drilling to date has defined mineralized zones which are continuous at depth (***Figure 7-5***). This drilling included significant near surface holes as well as four deep drill holes in order to explore below the near surface deposit. The results confirmed the continuity of the phosphate mineralization at depth however insufficient verified data was available to allow the estimation the resource quantities in-line with the JORC Code.
- **Morro Preto Areas**: An extensive exploration program has been developed by the Company in Morro Preto areas in WSW area of Goias state, approximately 45 km NW of the city of Arenopolis. Two zones with oxidate phosphate mineralisation have been drilled. RPM opines that whilst the defined mineralised zones do not meet the guidelines of JORC for reporting of Mineral Resources at this time, these could readily be reported in line with the JORC Code with further drilling and confirmation reviews. .

Figure 7-5 Soil geochemistry of Catalão II showing the targets Fazenda Mineração and Fazenda Marcos.



8. Ore Reserves

The JORC Code defines an 'Ore Reserve' as the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves. (JORC Code - Clause 28).

8.1 Areas of Ore Reserves

The estimation of Ore Reserves is based on the following areas which are planned to be exploited through open cut mining methods:

- Boa Vista Mine – this mine is currently being exploited via open pit methods for Niobium only and contains **26.2 Mt** at 0.95 % Nb_2O_5 of total Ore Reserves.
- Chapadão Mine – this mine is currently being exploited via open pit methods for P_2O_5 and contains **210.4 Mt** at 12.34 % P_2O_5 of total Ore Reserves.
- Mina I and Mina II deposits – the reported Ore Reserves of these Niobium deposits are totally contained within the Chapadão Mine and are planned to commence Ore production in 2020 with minor production in the preceding years. Mina I and Mina II deposits contain approximately **6.5 Mt** and **3.0 Mt** of Ore Reserves, respectively.
- Phosphate Tails containing Niobium – approximately 15% of the Niobium recovered mass processed at the phosphate plant is recovered as part of the fine concentrate in the tailing plant. This corresponds to approximately **40.7 Mt** of Ore Reserves.

8.2 JORC Statement of Ore Reserves

The Proved and Probable JORC Ore Reserves estimate for the Project is summarized in ***Table 8-1*** and shown graphically in ***Figure 8-1***. The JORC Ore Reserves estimates reported below are included in the Measured and Indicated Mineral Resources quantities reported in ***Section 7***. RPM has estimated the total Niobium Ore Reserves (excluding the Phosphate tails) to be approximately **35.1 Mt** at an average grade of 0.92 % Nb_2O_5, comprising **502 Kt** of Proved and **34.5 Mt** of Probable Ore Reserves. Similarly, RPM has also estimated the total Phosphate Ore Reserves to be approximately **208.9 Mt** at an average grade of 12.3 % P_2O_5 comprising **56.2 Mt** of Proved and **152.7 Mt** of Probable Ore Reserves.

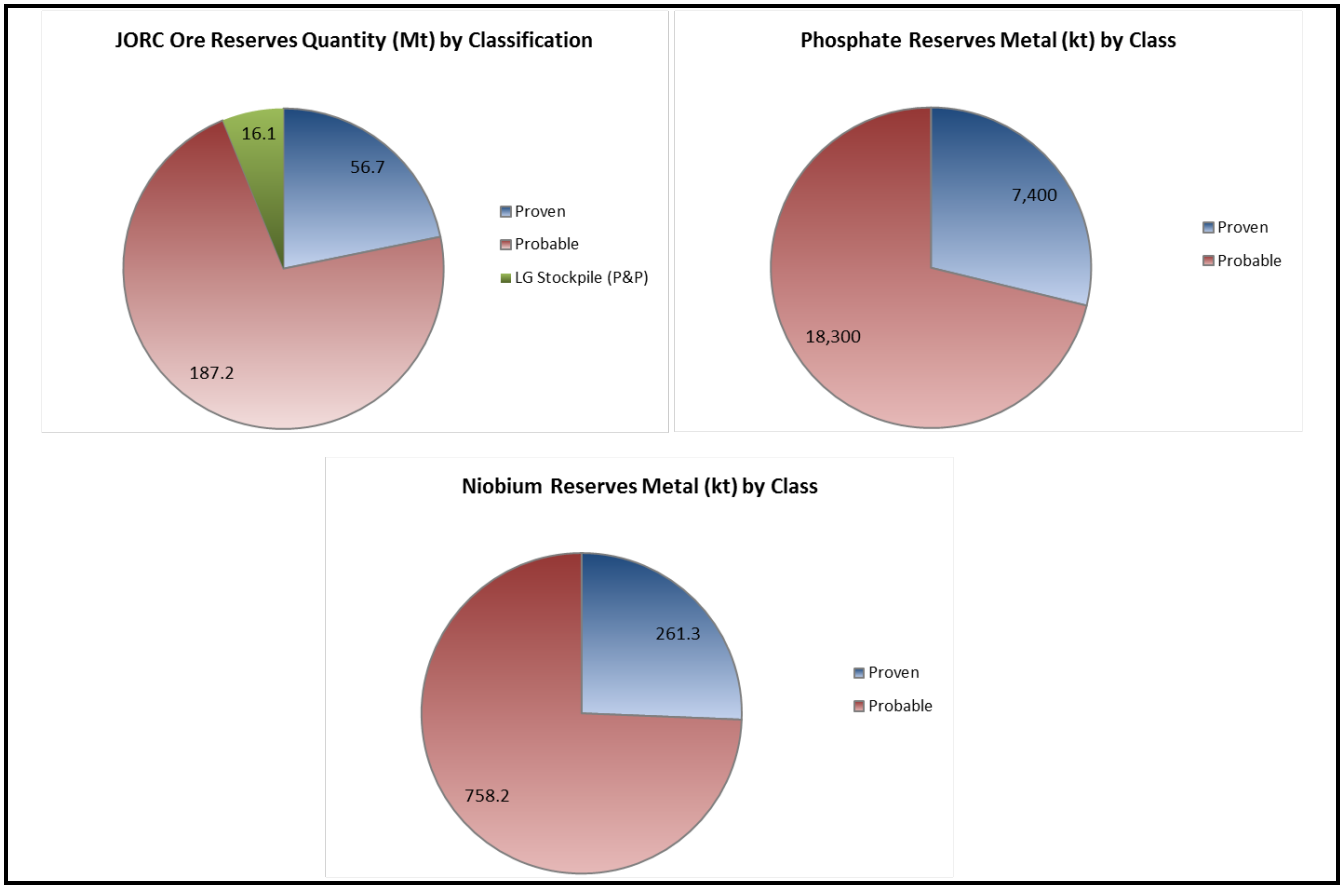
Table 8-1 Statement of JORC Ore Reserves Estimate within the Final Pit Designs as at 30th June 2016

Description	Quantity (Mt)	P_2O_5 %	P_2O_5 (kt)	Nb_2O_5 %	Nb_2O_5 (Metal kt)
Niobium Ore					
Proved	0.5	-	-	0.90	6.12
Probable	34.5	-	-	0.92	327.8
Sub Total	**35.1**	**-**	**-**	**0.92**	**327.9**
Phosphate Ore					
Proved	56.2	13.2	7,600		
Probable	152.6	12.0	18,300		
Sub Total	**208.9**	**12.3**	**26,000**		
LG Stockpile (P&P)					
Niobium Ore	6.4	-	-	0.40	25.9
Phosphate Ore	9.7	10.2	1,000		
Sub Total	**16.1**	**6.1**	**1,000**	**0.40**	**48.6**

Notes:

1. *The Statement of JORC Ore Reserves has been compiled under the supervision of Mr. Rondinelli Sousa who is a full time Senior Mining Engineer employed by RPM and is a Member of the American Society of Mining, Metallurgy & Exploration (SME). Mr. Sousa has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the JORC Code.*
2. *Tonnages are metric tonnes*
3. *Cutoff grade of 16.49% P_2O_5 mass recovery applied to the phosphate ore*
4. *Cutoff grade of 0.50% Nb_2O_5 applied to all ore types*
5. *Figures reported are rounded which may result in small tabulation errors. Ore Reserves have been estimated under the 2012 Edition of the JORC Code*

Figure 8-1 Graphical Representation JORC In Situ Ore Reserves Estimate within the Final Pit Designs



Note: Figure excluded Tails Material

In addition to the above reserve quantities, **30.8 Mt at 0.7%** Nb_2O_5 is estimates as part of the JORC Ore Reserves. This Niobium resource 15% of total phosphate tails and is processed in the tail Niobium concentrator (***Section 10***). The material is estimated based on the volume of fines produced and processed per year (1.1 Mt) and a constant grade of 0.7% based on historical production records though to 2041 (2 years after cessation of mining). RPM does however note that this may change of a year to year basis based on the ore type feed to the plant.

RPM notes that the Ore Reserves quoted in ***Table 8-1*** vary from those quoted by the Company. In particular RPM notes that the Company has not classified the Mina I and Mina II areas as Ore Reserves, whereas RPM considers there to be sufficient accuracy in the underlying studies to achieve the required Pre-Feasibility Study accuracy as required by JORC.

8.3 JORC Ore Reserves Estimation Procedure

Ore Reserves were estimated using a suit of specialized open pit mine planning software packages, which includes the pit optimization program 'Whittle', the haul analyze program 'HaulNet', and the life of mine production schedule program XPAC Open Pit Metals Solution 'OPMS'. The input parameters selected by RPM are based on the review of the mining studies completed by the Company, discussions with site personnel and site visit observations. To enable the estimation of JORC Ore Reserves, RPM has:

- Reviewed approach, assumptions and outcomes from the Company mine planning studies, including the operating and capital cost forecasts;
- Reviewed information on current mine performance including operating costs and processing recoveries;
- RPM used the end of March 2016 surfaces as basis for the pit optimization and production schedule forecast in both Niobium and Phosphate projects. The Ore Reserves and production schedule tables were afterward adjusted to reflect the material moved during the Q2 2016 according to the Company's monthly production reports and processing reconciliations. As result, all Ore Reserves and production schedules presented in this report reflect the in situ tonnes as in the 31st June 2016.
- Verified the results of the Whittle optimization and selection of appropriate pit shells;
- Reviewed the mining method and current life of mine designs;
- Reviewed methodology used to estimate ore recovery parameters in the model;
- Performed independent simulation of production schedules using the specialized production schedule program 'OPMS'. The simulation for each deposit is outlined in ***Section 9.5***;
- Verified the cutoff grades applied as suitable for use in an Ore Reserve estimate;
- Generated a discounted cashflow model for the LOM schedule incorporating operating and capital costs and revenue as detailed in ***Section 14*** and outlined below. RPM reviewed the operating and capital cost estimates prior to applying them in the economic model.

8.4 JORC Ore Reserves Estimation Parameters

RPM has determined suitable technical parameters including costs, recoveries to apply in the Ore Reserve estimation process following; discussions with site personnel, review of feasibility level documents, proposed life of mine plans, mining method, tailing dam capacity and the forecast processing plant recoveries for the areas of the Project where Measured and Indicated Resources have been estimated. RPM notes that at least feasibly study level documents were available for all Ore Reserve areas reported in this Report, which formed the basis for the selected parameters. RPM highlights (as outlined in ***Section 14***), that contractors complete all mining operation for niobium and phosphate, as such these mining costs were utilised in the pit optimizations. Inferred Mineral Resources cannot be used for Ore Reserves estimation and were not included as part of the Ore Reserve estimate.

A summary is presented for reference below, while further information regarding the parameters can be found in ***Sections 9, 10 and 14***.The following parameters have been (***Table 8-3***) used for the Ore Reserve estimate:

- No metal equivalence was utilised in the estimation of Ore Reserves;
- Variable metallurgical recovery dependent on the ore type and plant were utilised as shown in ***Table 8-2***. RPM notes that the BVO and Chapadão plant recoveries are based on 2015 results, while BVF is based on the testwork completed as part of the study. The niobium ore mill feed is in no case less than 0.5% for Nb_2O_5. Similarly, the phosphate ore mill feed is in no case less than 16.49% for P_2O_5 mass recovery refer to ***Section 10***;
- Operating costs utilised in the pit optimisations were based on feasibility level accuracy documents and forecast performance of the operations. The processing unit cost inputs for the pit optimizations are the average forecast costs over the next 5 years which include the processing from the ROM pad to market. These costs are based on various expected volumes, plants maintenance and unit costs of 2015 along with plant design. All mining is undertaken by contractors, as such the contract rates were utilised as the input costs. RPM notes that the mining contract for both phosphate and niobium refer to distances hauled for each ore and waste tonne rather than depth of the pit as such no depth rate was applied in the optimization. Given the inclusion of the haulage costs in the mining costs The average mining costs include haulage is for the next 5 years of operation based on expected volumes. RPM also refers the reader to other sections of the circular which present the recent costs and financial performance of the operations.
- RPM notes that the underpinning geological block models are considered diluted, as such no ore loss and dilution have been applied in the optimisations. The block models were re-blocked prior to optimization to the smallest mining unit size of 10m by 10m by 5m. This size was selected based on the equipment currently in use and forecast over the LOM (***Section 9***), and
- Long Term Consensus Forecast prices of USD40.93 per kg Nb_2O_5 and USD320.72 per tonne P_2O_5 were utilised for the pit optimizations and economic modelling to underpin reporting of Ore Reserves. These prices for optimization and reporting of Ore Reserves are at the point of sale of the products. The long term consensus forecasts were sourced from third party reports completed by marketing experts provided by the Company along with discussions with the Company's personnel. The RPM notes that the phosphate price is a combination of the high and low analysis product mix forecast, which is summarized in ***Section 9.5***. RPM refers to the Business section and the Valuation Report in the Circular for detailed marketing and economic information. RPM highlights is not a commodity forecasting specialist and has relied on third parties for price assumption. As per the JORC Code reporting requirements has completed independent reviews based on public and internal pricing information and considers the price assumption reasonable.

Table 8-2 Metallurgical Recovery by Ore Type

Metallurgical Unit	BVFR Plant - FR	BV Plant - FR	BV Plant - Oxide
Concentration	56.0%	49.0%	57.9%
Scalping	90.7%	-	-
Leaching	96.5%	96.5%	96.5%
Metallurgy	92.5%	92.5%	92.5%
Global	45.3%	43.7%	51.7%

Source: Provided by the Company and reviewed by RPM.

Table 8-3 Pit Optimization Parameters Used in the Ore Reserves by RPM

Description	Units	Phosphate	Niobium FR[2]	Niobium Oxides
Prices				
Phosphate	USD /tonne	320.72	-	-
Niobium	USD /kg	40.93	40.93	40.93
Selling Cost[5]				
Phosphate*		-	-	-
Niobium*	USD /kg	-	-	-
Average Mining Costs				
Ore Mining	USD /tonne	1.26	1.90	1.90
Waste Mining	USD /tonne	0.92	1.80	1.80
Ore Processing Costs				
Total Processing	USD /tonne	52.88	42.08	57.12
Dilution and Recovery				
Mining Recovery	%	100.0	100.0	100.0
Mining Dilution	%	-	-	-
Average Metallurgical Recovery				
Phosphate Mass Recovery	%	24.40	-	-
Niobium Recovery	%	-	32.00	36.11
Expected Cut-off Grade				
Phosphate Mass Recovery	%	13.66	-	-
Niobium	%	-	0.32	0.39
Pit Slopes				
Overall Slope Angles	Degrees	Varies location within the pit	Varies location within the pit	Varies location within the pit
Haulage Cost[6]				
Cost per Block	USD /tonne	-	-	-
Discount Rate (depth acceleration[4])				
Bench Discount Rate	%	0.0%	0.0%	0.0%

Source: Provided by the Company and reviewed by RPM.

Notes:

1. *All costs in US Dollars*
2. *Fresh rock material*
3. *Tonnage in metric tonnes*
4. *Depth acceleration is incorporated in haulage costs*
5. *Selling costs include in the Processing Costs*
6. *Included in the Average LOM Mining Costs*

8.5 Ore Reserve Economic Viability

As part of RPM's process to justify the economic viability of the reported Ore Reserves two separate revenue cash flow analysis were completed based on the following:

- All variable unit costs for the mine life, including mining, in and out of pit variable haulage, processing (which includes product generation and transport to market), G & A, and royalty costs.
- The forecast schedules as shown in ***Section 9.***
- CAPEX costs including sustaining and closure costs as outlined in ***Section 14.***

- Applied the assumed Long Term Consensus forecast prices as noted above. As outlined in the Market overview summary in ***Section 2.4***, both the Niobium and Phosphate markets are susceptible to both up and downswings over the medium and long term with various market forces impacting demand and supply. Supply is of particular note for Niobium, while domestic product type demand variation influence on pricing. Given the market forces and the increased complexities in forecasting both niobium and phosphate, in the DCF model RPM considered the use of long term average price suitable.
- Discount rate of 10%, which was selected based on the quantity, long history of mining and well established community relations, and
- No taxes were applied.

Based on the above parameters the outcomes of both models showed positive cashflow when all costs, CAPEX and pricing assumptions were applied. Further to the construction of the DCF model sensitivities were tested with key elements found to be sensitive to the project economics are price of the products as well as process operating costs. However, the Ore Reserve were found to be resilient to +/-20% variation in key parameters employed for sensitivity test over the life of the mine. As such RPM considers that the quantities and grades reported are economically robust and suitable for reported as Ore Reserves.

The averaged aggregated annualized costs which resulted from the cashflow model are presented in ***Section 14.2*** for each operation***.***

While RPM has completed an independent DCF to justify its Ore Reserves, RPM has also reviewed and refers the reader to the Valuation report contained within the Circular. This independent valuation report is based on the inputs and quantities contained within this Report and presented the detailed cashflow analysis, outcomes reported NPVs of the project for reference.

8.6 Comments

RPM notes the following in relation to the Ore Reserves:

- As outlined in ***Section 9***, RPM notes that the cut off grades applied to the Ore Reserves are limited by the minimum practical recovery within the phosphate and niobium plants. While the economical parameters indicate that cut off grades of 13.29% and 0.32 % phosphate and Boa Vista Fresh Plant are applicable, the minimum grade to achieve the required concentrate recovery is 16.49% and 0.5% respectively. As such in addition to the Proved and Probable JORC Ore Reserves stated above, RPM notes there is an upside of **6.4 Mt** and **9.7 Mt** in-situ material of potentially economic niobium and phosphate mineable quantity if below the reported cut-off grade material can be recovered into a suitable concentrate for use in downstream processing. RPM recommends this material be stockpiled for potential future processing and test work be completed to assess improvements to the recovery.
- While the Ore Reserves reported by RPM are based on the final pit design provided by the Company, RPM also undertook a series of pit optimization within the Chapadão pit to determine the potential upside based on the revised classification applied by RPM. This optimization indicates there is a potential for an additional **17.6 Mt** within an expanded pit of Measured and Indicated material. RPM notes that for this material to be included in an Ore Reserve estimate, a final pit design should be undertaken followed by scheduling. RPM considers this a priority as it could directly expand the mine life by up to 4 years.
- As per the reporting requirements of the JORC Code, the Inferred material within the final pit is considered waste and not included the reported Ore quantities or schedule. RPM notes that within the final pits **6.2 Mt** and **76.4 Mt** of Inferred Mineral Resources occurs with the niobium and phosphate pits respectively. If additional exploration successful delineates this mineralisation and it is upgraded to Indicated and/or Measured this material can be included in an updated Ore Reserve estimate. If successful defined as economical, this material has the potential to extend the mine life approximately by 3 years for each operation.
- RPM notes that currently the niobium and phosphate operations are optimized as individual projects and are schedules separately depending on the plant requirements. While this is generally suitable and

appropriate for the primary open pits of Boa Vista and Chapadão, RPM is of the opinion that synergies have been identified which could lead to cost saving. RPM recommend analysis to determine potential cost saving with particular focus on the following area:

- A number of years require significant waste movement to achieve the required throughput. While RPM notes that all mining is contractor based, and as such it the responsibility of the contractor to provide the required equipment, these additional costs are included the rates payable by the Company. Optimizing the projects consolidated plan to minimize mobilization and demobilization of equipment to and from site (i.e. the costs to the contractor) will enable lower costs to the contractor and thereby to the Company (when the contract is renegotiated).
- Production of the Mina I and Mina II ore requires the removal of waste and phosphate ore which overlays it. As part of its independent review RPM noted that careful schedule will be required to ensure that the BV plant is feed at maximum capacity. As with the above option this will require additional equipment at various times of the schedule which are recommended to be optimized between all mining areas.
- RPM has sourced these pricing from third party marketing studies and/or information and forecasts provided by the Company. RPM is not a price forecast expert and has relied on third party and Company expert opinions however considers them reasonable.

9. Mining

9.1 Summary

All mining operations are undertaken by contractors via conventional truck and shovel open pit methods, and over the Life of Mine ("LOM") ore is planned to be sourced from two separate open pits. The niobium ROM ore production at the Project is currently been mined from the Boa Vista pit and is fed into primary crushers located adjacent to the Boa Vista deposit at varying rates throughout the life of mine. While the Boa Vista deposit will be the single source for the first four years, the Project's production will be supplemented in Year 4 with ore from the Mina I and Mina II deposits which will be fed into a primary crusher located adjacent to the Chapadão deposit where those two deposits are also located. The phosphate ROM ore production at the project is planned to continue to be sourced entirely from the Chapadão pit and fed into primary crushers located adjacent to the pit within the Catalão Operations.

RPM has estimated the total Niobium Ore Reserves to be approximately **35.1 Mt** at an average grade of 0.9 % Nb_2O_5 which is sourced from the current Boa Vista pit, as well as the Mina I and Mina II areas within the Chapadão Pit. Over the 13 year LOM, the Boa Vista pit stripping ratio will average 3.78 t waste to 1.0 t ore. Similarly, the total Phosphate Ore Reserves to be approximately **208.9 Mt** at an average grade of 12.3 % P_2O_5 over the 37 year LOM, the Chapadão pit stripping ratio will average 3.0 t waste to 1.0 t ore. RPM notes the Chapadão Open Pit strip ratio includes both the Niobium (Mina I and Mina II) and Phosphate Ore Reserves within. Drilling, blasting, loading, and transport activities at both Boa Vista and Chapadão mines are performed by contractors.

Similar sized equipment is used for both waste and ore mining with the Boa Vista open pit which currently utilizes 33 x 35t trucks, 2 X Volvo EC 480 excavators, 2 x Volvo EC 700 excavators, while the Chapadão Pit utilizes 39 x 35t trucks, 2 x 70t, 2 x 45t and 1 x 35t excavators. Both operations are supported by several dozers, loaders, water trucks and blast hole drill rigs. Due to the varying haulage distances from the pit to crushers the Boa Vista Pit has a total material movement of approximately 14 Mtpa (2 Mtpa Ore) while the Chapadão Pit has a capacity of 17 Mtpa (5.8 Mtpa Ore). RPM notes that these capacities and ore movements change over the mine life and as such so do the equipment requirement, as outlined in ***Section 9.3.6***.

9.2 Mining Method

All mining operations are undertaken by contractors, which contracts negotiation on a periodical basis (every 2 years). Both Boa Vista and Chapadão utilize similar mining methods due to the similar key characteristics of the mineralisation within the Project. Both deposits occurs as large size lenticular near horizontal orebodies which are laterally very extensive. While Boa Vista contains only economic niobium mineralisation, Chapadão has Phosphate mineralisation commonly overlaying niobium mineralisation (Mina I and Mina II), however niobium mineralisation occurs within the phosphate mineralisation which forms the Tails production. Typical open cut mining is the preferred mining method as

- mineralisation occurs near surface;
- minimal initial mining capital investment for open cut mining as mining contractors will be engaged;
- the presence of supporting infrastructure for open cut mining;
- open cut operational costs are lower than underground.

The process for the typical open cut mining method includes:

- drilling of a blast pattern;
- blasting to fragment rock;
- marking out ore zones based on grade control results; and
- digging, loading and hauling of ore and waste rock to the surface.

9.3 Mine Design and Concept

All mining operations is conducted by contractors via conventional truck and shovel open pit mining methods. Waste material from the pits is delivered through a series of haul roads to onsite waste dumps for storage at each of the current operations. Ore from the Boa Vista (Nb_2O_5 only) and Chapadão (P_2O_5 and Nb_2O_5) Pits is hauled via trucks and tipped directly into one of two primary crushers which will be located adjacent to each pit (Scalping plant for boa vista and the primary crusher for Chapadão). Following crushing, the ore is transported to the respective Niobium or Phosphate concentrator (via a 25 km haul road from Boa Vista).

9.3.1 Geotechnical –Pit Slopes

The climate in the area is a typical high altitude tropical climate with two well-defined seasons: a dry season, from May to September, and a rainy season from October to April. Rainfall in the area averages 1,518 mm per year and ranges from a minimum of 8.5 mm to a maximum of 281 mm on a monthly basis.

Seismic hazard studies were not included in the documents available. However, the region is classified as a low seismicity area and seismic hazard is not a critical design consideration.

Boa Vista

Niobium ore is planned to be sourced from three pits over the mine life, these include the Boa Vista, Mina I, and Mina II. As noted previously Mina I and Mina II are located within the Chapadão final pit design (see below for discussion). While previous mining was predominately within oxide rock, fresh rock will form total feed from 2018 onwards from Boa Vista.

The Boa Vista pit has been mined since 2000 with fresh material reached in 2014. Overall slopes in the oxidized ore are 25 to 30º and bench face angle (BFA) of 65 degrees with 5-m high benches. Fresh rock have overall slopes of 50 to 53º, BFA of 85º and 10-m high benches.

The current slopes of the Boa Vista pit appear stable however a slope failure occurred in 2009. Evaluation of this failure was requested, however RPM was not supplied this information. A brief review during the site visit by RPM indicated that this failure is unlikely to be material to the final pit design.

A slope stability monitoring system is in place for the Boa Vista pit which consists of approximately 50 prisms, water levels and topographic surveys. RPM noted that mine personnel performs daily visual inspections; which are documented in a check list from and stored in hard copy format.

The geotechnical studies completed for the Boa Vista pit are considered adequate and the planned slopes appear reasonable.

Chapadão

The Chapadão pit final pit design is 1.9-km long, 1.7-km wide, and 90-m deep. All mining to date has taken place in the upper zone of lateritic and saprolitic soils, targeting the oxidized ore. During the site visit it was noted that no history of instability or wall failures had occurred since the beginning of its operations. RPM noted that mine personnel performs daily visual inspections, which are documented in a check list form and stored in hard copy format.

The Chapadão pit is located in the carbonated complex designated as Domo I (o Complex Catalão I), which belongs to the Igneous Province of Alto Paranaiba. The area is characterized by a weathering profile developed in an intrusive lithology which consists of five types of materials: fresh rock, altered rock, saprolite (two types), and lateritic soil cover.

The most recent geotechnical study provided to RPM for slope evaluation of the Chapadão pit was a FEL3-level study. This evaluation utilized geotechnical data compiled since 2010, five geotechnical drill holes and laboratory testing conducted for the FEL3 study. The slope stability analyses were performed on 17 cross-sections of the pit. Two of these sections are located in the adjacent Mina I area. The overall slope angle and/or the bench face angle were modified until a minimum factor of safety of 1.3 was obtained for all analysis sections.

The geotechnical studies for the Mina II pit were performed by Pimenta de Avila and were documented in a report dated March 2014. No specific geotechnical report has been prepared for Mina I, however it is included in the studies for the Chapadão pit. Mina I and Mina II is planned to have overall slope angles of 32 degrees (beneath the Phosphate final pit design) in oxidized ore, BFA of 65 degrees, and 5-m high benches. Mina I and Mina II were previously excavated entirely in oxidized material however are currently inactive. A monitoring system similar to Boa Vista is planned for when Mina I and Mina II are reactivated.

The current exposed slopes are entirely in overburden (lateritic soil) and oxidized ore, and appear stable and it is noted that due the high degree of weathering and alteration of the oxidized ore, this material exhibits cohesion, which improves its stability. As a result RPM considers the geotechnical studies completed for the Chapadão pit are considered adequate..

9.3.2 Pit Optimisation

RPM has evaluated the block models used in the estimates of the Mineral Resource using Whittle software package to confirm the validity of the pit limits employed in the LOM studies prepared by the Company. RPM used only Measured and Indicated material during the Whittle optimization. The smallest mining units for the open pits had dimensions of 10m by 10m by 5m based on the equipment types as outlined in ***Section 9.3.6.***

The Chapadão pit optimization was performed in two passes: the first pass considered the Company's resource classification to produce the main pit. The second pass used the RPM's proposed resource classification for the phosphate oxides; this second pass resulted in the pit optimization determining the satellite pit located southern the main Chapadão pit to be economic and included this in the presented results.

A summary of the results of the pit optimizations are outlined in ***Table 9-1*** for Boa Vista and ***Table 9-2*** for Chapadão. A review of these optimizations indicates that RPM could replicate the Company's.

9.3.3 Cutoff Grade Analysis

RPM undertook a Whittle analysis using an individual ore type cutoff calculation in order to assess the pit optimization sensitivity associated with different cutoff grade strategies. The individual cutoff calculations for both Boa Vista and Chapadão pits are based on the different metallurgical recoveries as listed in ***Table 8-2***.

RPM has confirmed that the Company currently applies a 0.5% Nb_2O_5 cutoff grade to all niobium deposits while a 16.49% P_2O_5 mass recovery cutoff is applied to the phosphate ore. The companies stated that these cutoff grades are higher than their respective economic internal cutoffs due the low confidence associated to the concentration plants capability in recovering low-grade ores.

Conversely, the cutoff grade analysis performed by RPM has shown that the internal economic cutoff grades for both the niobium deposits are 0.32% Nb_2O_5 for fresh rock and 0.39% Nb_2O_5 for oxides, while internal cutoff grade for the phosphate deposit is 13.66% P_2O_5 mass recovery (when inclusion of the Nb material within the Phosphate Ore). As result, RPM classified these materials as low-grade ores that could be stockpiled and processed later on if future metallurgical studies indicate the processing viability of them. If those metallurgical studies confirmed the feasibility in processing the low-grade ore, they could bring a positive impact in both project's evaluation. ***Table 8-1*** shows the upside potential of the low-grade ore within the final pit designs.

Table 9-1 Boa Vista Pit Optimization Results, as March 31, 2016 - Measured and Indicated Resources Only

Pit Shell	Rev Factor	Nb Price ($/kg)	Nb_2O_5 FR Cutoff %	Nb_2O_5 Oxide Cutoff %	Total (kt)	Ore (kt)	Waste (kt)	Strip	Max Bench	Min Bench	Nb_2O_5 %	Nb_2O_5 (t)
1	0.50	20.47	0.64	0.77	55,156	18,130	37,026	2.04	181	105	1.04	188,556
2	0.55	22.51	0.58	0.70	66,217	20,192	46,025	2.28	182	101	1.03	207,977
3	0.60	24.56	0.54	0.64	70,402	23,784	46,617	1.96	182	100	0.96	228,331
4	0.65	26.60	0.49	0.59	75,891	24,812	51,079	2.06	182	99	0.96	238,197
5	0.70	28.65	0.46	0.55	80,678	25,810	54,869	2.13	182	97	0.95	245,193
6	0.75	30.70	0.43	0.52	88,256	29,159	59,097	2.03	182	95	0.90	262,434
7	0.80	32.74	0.40	0.48	91,674	29,611	62,063	2.10	182	94	0.90	266,501
8	0.85	34.79	0.38	0.45	97,801	30,325	67,475	2.23	183	93	0.89	269,897
9	0.90	36.84	0.36	0.43	99,426	31,012	68,414	2.21	183	93	0.88	272,907
10	0.95	38.88	0.34	0.41	103,869	32,996	70,873	2.15	183	93	0.85	280,468
11	**1.00**	**40.93**	**0.32**	**0.39**	**105,698**	**33,313**	**72,386**	**2.17**	**183**	**93**	**0.85**	**282,721**
12	1.05	42.98	0.31	0.37	110,028	33,624	76,404	2.27	184	93	0.85	285,803
13	1.10	45.02	0.29	0.35	111,920	33,868	78,051	2.30	184	93	0.84	284,495
14	1.15	47.07	0.28	0.34	112,386	34,077	78,309	2.30	184	93	0.84	286,245
15	1.20	49.12	0.27	0.32	113,401	34,186	79,215	2.32	184	93	0.84	287,167
16	1.25	51.16	0.26	0.31	114,112	34,808	79,305	2.28	184	92	0.83	288,903
17	1.30	53.21	0.25	0.30	115,971	35,335	80,636	2.28	184	92	0.82	289,748
18	1.35	55.26	0.24	0.29	119,025	35,599	83,426	2.34	189	92	0.82	291,908
19	1.40	57.30	0.23	0.28	119,723	35,752	83,971	2.35	189	92	0.82	293,168
20	1.45	59.35	0.22	0.27	120,601	35,788	84,813	2.37	189	92	0.82	293,463
21	1.50	61.40	0.21	0.26	121,776	35,923	85,853	2.39	189	92	0.82	294,568

Notes:

1. *Tonnage in metric tonnes*
2. *RPM pitshell generated in Whittle*
3. *Figures reported are rounded which may result in small tabulation errors.*

Table 9-2 Chapadão Pit Optimization Results, as March 31, 2016 - Measured and Indicated Resources Only

Pit Shell	Rev Factor	P_2O_5 Price ($/t)	Nb_2O_5 Price ($/kg)	P_2O_5 MR CutOff[3]	FR Cutoff	Oxide Cutoff	Total t (000)	Ore t (000)	Waste t (000)	Strip	Max Bench	Min Bench	P_2O_5 %	P_2O_5 t	Nb_2O_5 %	Nb_2O_5 t
1	0.50	160.36	20.47	31.33	0.64	0.77	25,707	4,678	21,029	4.49	130	82	9.74	455,678	0.83	38,831
2	0.55	176.40	22.51	28.12	0.58	0.70	50,403	13,696	36,707	2.68	130	78	12.27	1,680,554	0.64	87,657
3	0.60	192.43	24.56	25.44	0.54	0.64	127,101	34,530	92,570	2.68	135	77	13.69	4,727,198	0.51	176,105
4	0.65	208.47	26.60	23.18	0.49	0.59	196,760	59,488	137,272	2.31	136	67	13.57	8,072,550	0.49	291,492
5	0.70	224.50	28.65	21.24	0.46	0.55	367,384	101,850	265,534	2.61	138	67	13.39	13,637,778	0.44	448,142
6	0.75	240.54	30.70	19.55	0.43	0.52	489,726	137,294	352,432	2.57	152	67	12.89	17,697,153	0.41	562,904
7	0.80	256.58	32.74	18.08	0.40	0.48	650,028	169,891	480,137	2.83	152	67	12.51	21,253,341	0.38	645,585
8	0.85	272.61	34.79	16.78	0.38	0.45	771,204	193,955	577,249	2.98	152	67	12.26	23,778,883	0.36	698,238
9	0.90	288.65	36.84	15.63	0.36	0.43	832,355	207,002	625,353	3.02	152	67	12.16	25,171,391	0.35	724,505
10	0.95	304.68	38.88	14.59	0.34	0.41	864,188	215,731	648,457	3.01	152	67	12.09	26,081,825	0.34	733,484
11	1.00	320.72	40.93	13.66	0.32	0.39	797,138	238,272	558,866	2.35	152	66	12.05	28,711,757	0.34	810,124
12	1.05	336.76	42.98	12.82	0.31	0.37	904,949	226,557	678,392	2.99	152	65	12.02	27,232,102	0.33	747,637
13	1.10	352.79	45.02	12.06	0.29	0.35	919,349	228,821	690,528	3.02	152	65	12.00	27,458,553	0.33	755,110
14	1.15	368.83	47.07	11.36	0.28	0.34	928,002	229,947	698,055	3.04	152	65	12.00	27,593,605	0.33	758,824
15	1.20	384.86	49.12	10.72	0.27	0.32	930,839	230,458	700,381	3.04	152	64	11.99	27,631,856	0.33	760,510
16	1.25	400.90	51.16	10.13	0.26	0.31	935,368	230,883	704,486	3.05	152	64	11.99	27,682,838	0.33	761,913
17	1.30	416.94	53.21	9.58	0.25	0.30	941,602	231,280	710,322	3.07	152	64	11.98	27,707,347	0.33	763,224
18	1.35	432.97	55.26	9.08	0.24	0.29	945,200	231,453	713,747	3.08	152	64	11.98	27,728,116	0.33	763,796
19	1.40	449.01	57.30	8.61	0.23	0.28	947,856	231,547	716,309	3.09	152	64	11.98	27,739,388	0.33	764,107
20	1.45	465.04	59.35	8.18	0.22	0.27	951,031	231,666	719,365	3.11	152	64	11.98	27,753,630	0.33	764,499
21	1.50	481.08	61.40	7.77	0.21	0.26	954,691	231,720	722,971	3.12	152	64	11.98	27,760,004	0.33	764,675

Notes:

1. *Tonnage in metric tonnes*
2. *RPM pitshell generated in Whittle*
3. *Figures reported are rounded which may result in small tabulation errors.*

9.3.4 Mine Design Parameters

The mine design parameters for the phase and interim pit designs for both Boa Vista and Chapadão mines are listed in ***Table 9-3***.

Table 9-3 Mine Design Parameters

Item	Boa Vista	Mina I	Mina II	Chapadão
Haul Road Width	13 meters	16 meters	16 meters	16 meters
Intermediate Ramp Grade	10%	8%	8%	8%
Final Limit Ramp Grade	10%	8%	8%	8%
Bench Height	5 to 10 meters	5 meters	5 meters	5 meters
Berm Width	6.5 to 9 meters	6 meters	6 meters	5 meters
Overall Slope Angle	25° to 53°	32°	32°	34°
Bench Face Angle (BFA)	65° to 85°	65°	65°	65°

Source: Provided by the Company and reviewed by RPM.

RPM has reviewed the current mine plans for the pits which will be mined over 37 years (combined niobium and phosphate) and considers that the pit limits and phases were designed with suitable level of detail taking into account the recommended geotechnical and mining operation parameters. ***Table 9-4*** presents a comparison analysis between the Whittle pit shells generated by RPM and the designed pits provided by the Company. A review of these results indicates that while variations occur, the whittle pits are generally consistent with the Company's final pit designs as such has utilised these final pits as the basis for the production schedule and results Ore Reserves as present in this Report.

9.3.5 Waste Dumps

RPM have been provided with detailed waste dump designs for the Boa Vista and Chapadão Pits, as well as dumping strategies for the reminder of the mine life. RPM considers both the designs and the strategy to be adequate to support both the Ore Reserve and Upside Production Schedules.

Boa Vista

A total of four waste dumps are planned for the Boa Vista Pit, with two dumps currently active, namely the West dump and the Southeast dump (which will be expanded), while two additional dumps will be developed designated Northeast and Long-Term. The West and Southeast waste dumps were designed by third parties as documented in reports dated November 2015. All the Boa Vista waste dumps have been designed with slope face angles of 34º, 10-m high benches and 10-m wide berms. RPM considers the designs for the West and Southeast waste dump to be adequate.

While no information detailed design information was available regarding the design and location of the LOM dump, it is assumed that the designs will utilize similar criteria. All land and permits for the waste dumps through 2019 have been received, while the permits have been received for waste deposition until 2021.

RPM considers that while no detailed design is available post 2021 there is adequate storage and land capacity to enable the continued operation. RPM is aware the Company is currently evaluating suitable locations for the LOM dump, with mapping completed.

Table 9-4 Comparison of Pit shell and Designed Pit

Description	Ore					Low Grade Ore					Strip Ratio	Waste[6] (kt)
	Quantity (kt)	P_2O_5 CutOff[4]	Nb_2O_5 CutOff[5]	P_2O_5 %	Nb_2O_5 %	Quantity (kt)	P_2O_5 Cutoff	Nb_2O_5 Cutoff	P_2O_5 %	Nb_2O_5 %		
Boa Vista												
RPM Pitshell[2]	26,867	-	0.50	-	0.95	6,446	-	0.32	-	0.41	2.17	72,386
Designed Pit[3]	26,176	-	0.50	-	0.95	6,362	-	0.32	-	0.41	3.06	99,562
Comparison												
Difference	(691)	-	-	-	-	(84)	-	-	-	-	-	27,177
Percentage	-3%	-	-	-	-	-1%	-	-	-	-	-	38%
Mina I												
RPM Pitshell[2]	6,889	-	0.50	-	0.66	27	-	0.39	-	0.44	-	-
Designed Pit[3]	6,478	-	0.50	-	0.65	27	-	0.39	-	0.44	-	-
Comparison												
Difference	(411)	-	-	-	-	-	-	-	-	-	-	-
Percentage	-6%	-	-	-	-	0%	-	-	-	-	-	-
Mina II												
RPM Pitshell[2]	3,150	-	0.50	-	1.20	30	-	0.32	-	0.43	-	-
Designed Pit[3]	3,058	-	0.50	-	1.19	30	-	0.32	-	0.43	-	-
Comparison												
Difference	(92)	-	-	-	-	-	-	-	-	-	-	-
Percentage	-3%	-	-	-	-	0%	-	-	-	-	-	-
Chapadão												
RPM Pitshell[2]	218,874	16.49	0.50	12.31	0.33	9,302	13.66	0.32	10.24	0.25	2.45	558,866
Designed Pit[3]	210,404	16.49	0.50	12.34	0.33	9,668	13.66	0.32	10.22	0.23	2.81	646,339
Comparison												
Difference	(8,470)	-	-	-	-	366	-	-	-	-	-	87,472
Percentage	-4%	-	-	-	-	4%	-	-	-	-	-	16%
Total Deposits												
RPM Pitshell[2]	255,780	16.49	0.50	12.31	0.92	15,805	13.66	0.32	10.24	0.41	2.32	631,252
Designed Pit[3]	246,116	16.49	0.50	12.34	0.92	16,086	13.66	0.32	10.22	0.41	2.84	745,901
Comparison												
Difference	(9,664)	-	-	-	-	281	-	-	-	-	-	114,649
Percentage	-4%	-	-	-	-	2%	-	-	-	-	-	18%

Notes:

1. *Tonnage in metric tonnes*
2. *RPM pit shell generated in Whittle*
3. *Final pit design provided by Anglo American*
4. *Cutoff grade of 16.49% P2O5 mass recovery applied to the phosphate ore*
5. *Cutoff grade of 0.50% Nb2O5 applied to all ore types*
6. *Waste quantities for Mina I and Mina II are reported in the Chapadão pit*
7. *Figures reported are rounded which may result in small tabulation errors*.

Chapadão - Phosphate

A waste dump designated as Northwest is currently active in the Chapadão Mine and the only currently planned dump. The dump was designed by a third party and was documented in a report dated May 2007 and consists of four phases with total capacity of 48.9 M cu.m with a remaining capacity to store waste through 2021 at the current production rate. The design considers 10-m high benches with 6-m wide berms and bench face angle of 28°. The detailed design of Phases 1 and 2 of the NW dump included geotechnical foundation investigations and slope stability analyses. As of 2014, Phase 1 was full and Phase 2 was being implemented.

The NW dump is located in an open area which allows its lateral expansion. RPM is aware that during 2014 the Company prepared a 'Waste Dump Master Plan for the Chapadão Mine' which considers lateral expansion of the NW dump by acquiring neighboring properties. This master plan considers a LOM through 2041, with 579.4 Mt of waste to be generated in the 2016-2041 period. It should be noted that the current financial model is for a LOM through 2061 with further designs required.

The proposed expansion considers six phases. The expansion phases 1 and 2 are phases 3 and 4 of the existing NW dump and already have a detailed design prepared by a third party with capacity through 2021. The remaining phases are at a conceptual level and will require a detailed design.

RPM notes that the Company are currently evaluation the use of in pit waste dumps in the Chapadão areas, with slope face angle of 28 degrees, 10-m high benches and 6-m wide berms.

While further evaluation are required to ensure the waste rock for the LOM can be suitably stored, RPM consider there to be adequate time available and space to develop an optimized plan with no major impediments.

9.3.6 Equipment Plan

Current Operations

The current Boa Vista Mine's fleet has 39 units of 35 tonne capacity trucks. The same equipment that is used for waste stripping is also used for ore mining. Loading activities make use of small backhoe loaders and blasting is performed by specialized companies.

The Chapadão Mine fleet calculation assumes that the same size equipment will be used for the entire life of mine. The size of the fleet was defined based on the assumption that mining operations and mine development will continue to be carried out by contractors using the same sized equipment defined in the current operation. Chapadão Mine operation currently has 34 units of 35 tonne capacity trucks. Similarly to the Boa Vista Mine's operation, loading activities also make use of small backhoe loaders and blasting is performed by specialized companies.

Due to the different nature of niobium and phosphate mining, the operations were considered individually, and therefore, synergy was not considered in the initial mining contracts. In 2016, when current contracts will be renewed, synergy will be considered and the sharing of resources will be prioritized.

LOM Operations

The LOM production schedule waste and ore movements vary year on year. Mining for both niobium and phosphate ore is performed by a mining contractor (the same one at both mines) who utilizes small equipment (35 tonne trucks and small backhoe loaders). ***Tables 9-5*** through ***Table 9-7*** show the equipment requirements over the mine life.

Table 9-5 Boa Vista Mine Equipment LOM Equipment requirements

Boa Vista Mine	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026-2030	2031
Main Equipment												
Trucks Volvo 8x4	32	34	34	34	34	21	20	22	21	18	14	4
Excavator Volvo EC 700	4	4	4	4	4	3	3	3	3	3	3	2
Drilling Sandvick DX800	4	4	4	4	5	3	3	3	3	2	2	1
Auxiliary Equipment												
Bulldozer CAT D6T	2	2	2	2	2	2	2	2	2	2	2	2
bulldozer CAT D8R	1	1	1	1	1	1	1	1	1	1	1	1
Water Truck 15m3	2	2	2	2	2	2	2	2	2	2	2	2
Wheel Loader 962K	2	2	2	2	2	2	2	2	2	2	2	2
Support Equipment												
Grader CAT 140M	2	2	2	2	2	2	2	2	2	2	2	2
Backhoe	1	1	1	1	1	1	1	1	1	1	1	1
Fuel & Lub Truck	1	1	1	1	1	1	1	1	1	1	1	1

Source: Provided by the Company and reviewed by RPM.

Table 9-6 Chapadão Mine Mina I and Mina II (Niobium) Equipment LOM Equipment requirements

Mina II	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026-2029		
Main Equipment													
Trucks Volvo 8x4			4	5	15	14	37	35	20	47	37		
Excavator Volvo EC 700			1	1	2	3	3	3	3	4	3		
Drilling Sandvick DX800			1	1	2	2	4	4	2	4	3		
Auxiliary Equipment													
Bulldozer CAT D6T			2	2	2	2	2	2	2	2	2		
bulldozer CAT D8R			0	0	0	0	0	0	0	0	0		
Water Truck 15m3			1	1	1	1	2	2	2	2	2		
Wheel Loader 962K			1	1	1	1	1	1	1	1	1		
Support Equipment													
Grader CAT 140M			1	1	1	1	1	1	1	2	2		
Backhoe			1	1	1	1	1	1	1	1	1		
Fuel & Lub Truck			1	1	1	1	1	1	1	1	1		
Mina I	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029-2030	2031-2035	2036-2042
Main Equipment													
Trucks Volvo 8x4											5	4	3
Excavator Volvo EC 700											1	1	1
Drilling Sandvick DX800											1	1	1
Auxiliary Equipment													
Bulldozer CAT D6T											2	2	2
bulldozer CAT D8R											0	0	0
Water Truck 15m3											1	1	1
Wheel Loader 962K											1	1	1
Support Equipment													
Grader CAT 140M											1	1	1
Backhoe											1	1	1
Fuel & Lub Truck											1	1	1

Source: Provided by the Company and reviewed by RPM.

Table 9-7 Chapadão Mine Phosphate Equipment LOM Equipment requirements

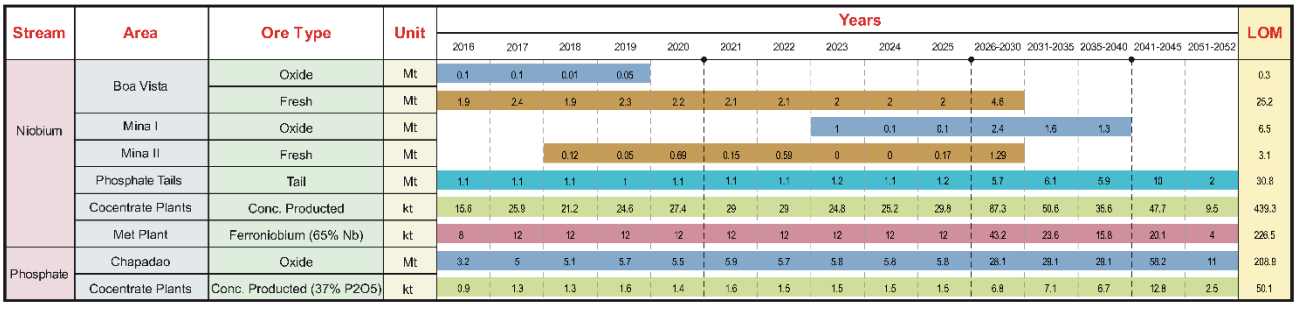
	2016	2017	2018	2019	2020	Average 2021-2025	2026-2030	2031-3035	2036-2040	2046-2060
Main Equipment										
Trucks 8x4	39	32	42	37	29	52	58	76	72	58
Excavator 70 t	2	2	2	2	2	2	3	4	3	2
Excavator 45 t	1	1	1	1	1	1	1	1	1	1
Excavator 35 t	1	1	1	1	1	1	1	1	1	1
Drilling ROC D7	1	1	1	1	1	1	1	1	1	1
Auxiliary Equipment										
Bulldozer CAT D6T	1	1	1	1	1	1	1	1	1	1
Bulldozer CAT D8R	2	2	2	2	2	2	2	2	2	2
Water Truck 15m3	3	3	3	3	3	4	4	4	4	4
Wheel Loader 966H	2	2	2	2	2	2	2	2	2	2
Support Equipment										
Grader CAT 140M	2	2	2	2	2	3	3	3	3	3
Backhoe	2	2	2	2	2	2	2	2	2	2
Fuel & Lub Truck	1	1	1	1	1	1	1	1	1	1

Source: Provided by the Company and reviewed by RPM.

9.4 Life of Mine Plan and Pit Sequence

Mining is forecast to continue as per the current operations with the plants feed by the Boa Vista and Chapadão open pits. Both pits will be mined using a number of phases or push back, with 3 forecast in Boa Vista and 11 in Chapadão (***Figure 9-2***). Mina II is forecast to commence production in 2018 (***Figure 9-2***) which is planned to coincide with the decrease in the oxide feed from the Boa Vista pit, while Mina I is forecast to commence production in 2023. RPM notes that there may be some processing issues with mining of Mina I and Mina II occurs simultaneous, as such it will be required to stockpile and batch the ore types separately to ensure recoveries are achieved.

Figure 9-1 Niobium and Phosphate LOM Pit Sequencing



*Average of years

9.5 Ore Reserve Schedule

The Project production plans for Niobium and Phosphate prepared by RPM are based on measured and indicated resources only and are shown in ***Table 9-8*** and ***Table 9-9,*** and ***Figure 9-2*** and ***Figure 9-3***. Specifically, the design pit used was based on measured and indicated material, and the inferred resource that fell within the design pit was included in the waste category. Mine plans have been designed to provide higher than

average grade early in the mine life, and lower than average grade late in the mine life. This is accomplished through a staggered introduction of mining from the deposits in order to maximise cash flow early.

Based on the Ore Reserve estimate, the Pit Development Sequence and the Pit Designs the forecast mine life is approximately 13 years for Boa Vista years and 37 years for Chapadão from 31st March, 2016. RPM considers that the proposed Life of Mine Development Sequence and Production Forecast to be reasonable and achievable based on the current mining equipment and designs. RPM does however recommend that further optimization and short term planning to ensure any short comings in the ore delivery to the plants. This optimization should focus of the sequence of development in conjunction with capital expenditure and short term grade variability to maximize the profitability of the Project.

RPM notes that that while the Boa Vista pit is forecast to cease operations in 2028, Mina I and Mina II will not cease until 2038, while the Tailing plant will continue to be fed at approximately 1.1 Mt per year from the fines material for the remainder of the phosphate production. The tailings concentrator production included in ***Table 9-8*** only includes the material to 2039, however as this concentrator is fed from tailing from the phosphate concentrators the production will continue until the end of the Chapadão mine life in 2039. As such the total tonnes is 30.8 Mt.

RPM highlights that the production schedules varies from that presented by the Company primarily due to the exclusion of Inferred from RPM Ore Reserves schedule as required by JORC Code.

9.5.1 Boa Vista Production Schedule

The Boa Vista LOM schedule was developed targeting an approximate ore production rate of 2Mtpa, while reducing the waste movement to a minimum level required to sustain the target ore production. This resulted in a schedule that showed an initially higher annual volume of waste (a higher strip ratio which is the ratio of waste to ore tonnes) that gradually reduces each year over the LOM. This characteristic is typical as the amount of waste stripping required to access ore is generally higher in the upper levels of an open pit mine, reducing as the pit deepens. Another feature of the schedule is a generally increasing ore grade as the pit develops. The Boa Vista schedule results which RPM considers practical and achievable are presented in ***Table 9-8*** and ***Figure 9-5***.

9.5.2 Chapadão Production Schedule

The Chapadão LOM plan schedule was developed with several objectives in mind. The first objective was to duplicate the first five years of the Company's LOM plan. This was achieved by using the end of year (EOY) face position surfaces provided to RPM to dictate the mining areas for each of the first 5 years. After this point in time, the LOM schedule targeted a 5.8Mtpa ore mining rate, with the total mining capacity, of ore and waste, capped at 30Mtpa. This capped amount included mined Niobium ore and waste from both Mina I and Mina II. Due to the methodology employed by RPM in scheduling, it was necessary to include the Mina 1 and II pits as part of the phosphate schedule, however, it is noted that with more refinement, the Mina I and II pits could be scheduled separately from the phosphate pit to produce a more optimized schedule. The LOM plan schedule results are presented in ***Table 9-8*** and ***Figure 9-9***.

Table 9-8 Ore Reserve Niobium Production Plan

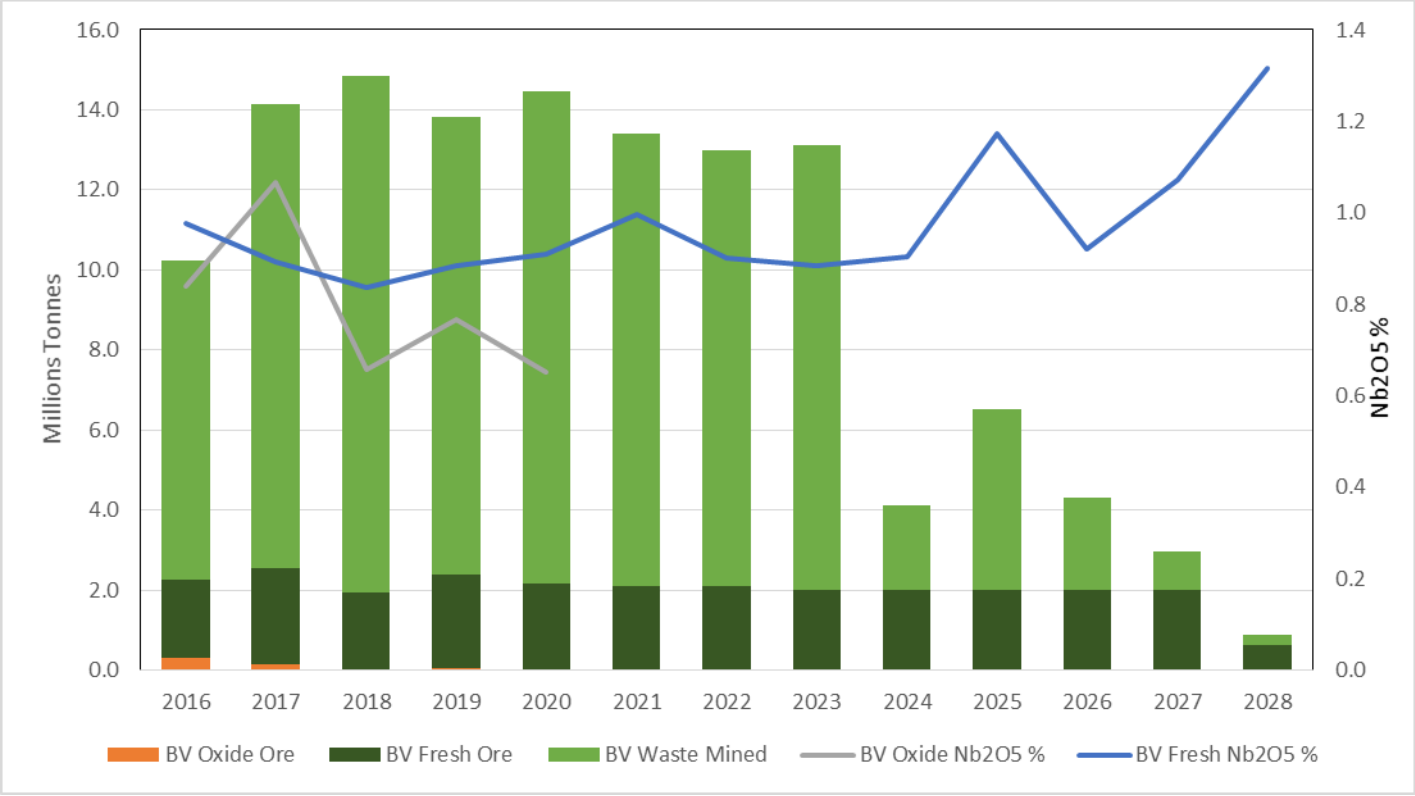
Year	Units	LOM	2016	2017	2018	2019	2020	Average 2020 - 2025	Average 2025-2035	Average 2035-2041
Boa Vista Open Pit Mine										
Oxide Ore	Mtonnes	0.3	0.1	0.1						
Contained Nb2O5	%	0.8	0.5	1.1	0.7	0.8	0.7			
Fresh Rock Ore	Mtonnes	25.2	1.5	2.4	1.9	2.3	2.2	2.1	1.5*	
Contained Nb2O5	%	1.0	1.0	0.9	0.8	0.9	0.9	1.0	1.0*	
Waste Mined	Mtonnes	96.4	4.9	11.6	12.9	11.4	12.3	8.0	1.2*	
Total material mined	Mtonnes	126.4	10.9	14.1	14.8	13.8	14.5	10.0	2.7*	
Strip Ratio		3.8	3.0	4.5	6.7	4.8	5.7	0.5	0.7*	
Mina I Open Pit mine										
Oxide Ore	Mtonnes	6.5	0.0					0.4	0.7	0.4#
Contained Nb2O5	%	0.7	1.1					0.6	0.7	0.7#
Waste Mined	Mtonnes	9.5	0.1		0.2	0.0		1.0	0.7	0.9#
Total Rock mined	Mtonnes	15.7						1.4	1.3	1.3#
Strip Ratio		1.5						1.5	1.0	1.6#
Mina II Open Pit Mine										
Fresh Rock Ore	Mtonnes	3.1			0.1	0.0	0.7	0.3	0.6^	
Contained Nb2O5	%	1.2			1.2	1.2	1.2	1.2	1.2^	
Waste Mined	Mtonnes	21.0			0.2	0.7	3.0	1.6	5.3^	
Total Rock mined	Mtonnes	24.0			0.3	0.8	3.6	1.9	6.0^	
Concentrators										
BVFR Concentrator Feed	ktonnes	16.6	0.7	1.4	1.4	1.4	1.4	1.4	1.1	
BVFR Concentrator Feed	$\%Nb_2O_5$	1.2	1.2	1.1	1.0	1.1	1.1	1.2	1.3	
BVO Plant Feed	Ktonnes	11.9	0.5	0.5	0.2	0.4	0.6	0.6	0.5	0.4
BVO Plant Feed	$\%Nb_2O_5$	0.9	1.0	1.1	1.1	1.1	1.2	1.0	0.8	0.7
Tailings Plant Feed	ktonnes	34.5	0.5	1.1	1.1	1.0	1.1	1.2	1.2	1.3
Ferroniobium Produced	ktonnes	216.3	7.9	13.1	10.7	12.5	13.9	14.2	6.8	3.2
Contained Nb	ktonnes	140.6	5.1	8.5	6.9	8.1	9.0	9.2	4.4	2.1

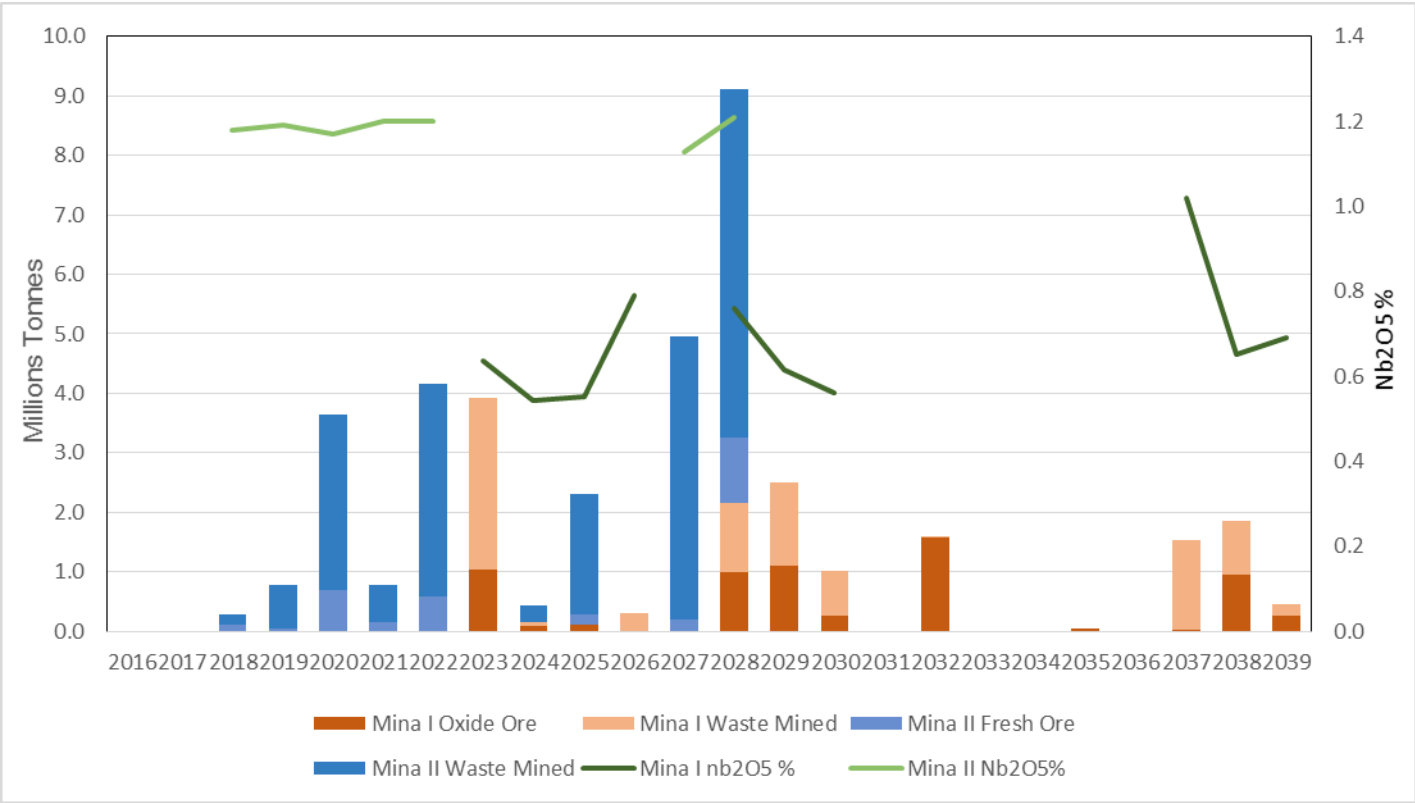
**Boa Vista ceases production in 2028*
#Mina I ceases production in 2039
^Mina II ceases production in 2028

Table 9-9 Phosphate Production Plan

Year	Units	LOM	2016	2017	2018	2019	2020	Average 2021-2025	Average 2026-2035	Average 2036-2045	Average 2046-2052
Chapadão Ore Mined											
Oxide Ore	Mtonnes	208.9	3.2	5.0	5.1	5.3	5.2	5.7	5.8	5.8	5.8
P_2O_5	%	12.3	14.5	13.7	13.6	14.2	13.3	13.5	12.4	11.6	11.5
Waste Material (Inferred material incl)											
Waste Mined	Mtonnes	621.6	6.3	11.1	12.7	13.0	13.0	21.6	22.1	22.5	1.8
Total Rock Mined	Mtonnes	830.6	9.5	16.1	17.8	18.3	18.2	27.2	27.8	28.3	7.6
Strip Ratio		3.0	2.0	2.2	2.5	2.4	2.5	3.8	3.8	3.9	0.3
Concentrators											
Plant 47 (500 t/hr)	%	72%	72%	72%	72%	72%	72%	72%	72%	72%	72%
Plant 76(360 t/hr)	%	72%	72%	72%	72%	72%	72%	72%	72%	72%	72%
Concentrate (combined)											
Combined	ktonnes	49,840	895	1,324	1,334	1,462	1,325	1,493	1393.7	1306.4	1290.5
P_2O_5 grade	%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
Contained P_2O_5	ktonnes	18,441	331	490	494	541	490	552	515.7	483.4	477.5

Figure 9-5 Mine Total Movements – Top Boa Vista, Bottom Mina I and II





RPM notes it is difficult to accurately forecast fertilizer production on a year of year basis, due to the variable demand per year of the various product. As result rather than a detailed LOM schedule, based on information provided by the Company, RPM (as presented in ***Table 9-9***) has averaged the first five years forecast production for each product in an aggregate summary which is supported by a detailed marketing study and forecasts by the Company. Based on discussions with the site personnel and these forecasts RPM considers the averages to likely represent long term averages over the life of the project for the various product (as supported by the Ore Reserves), however expects variations to occur on a year by year, based on local market demand.

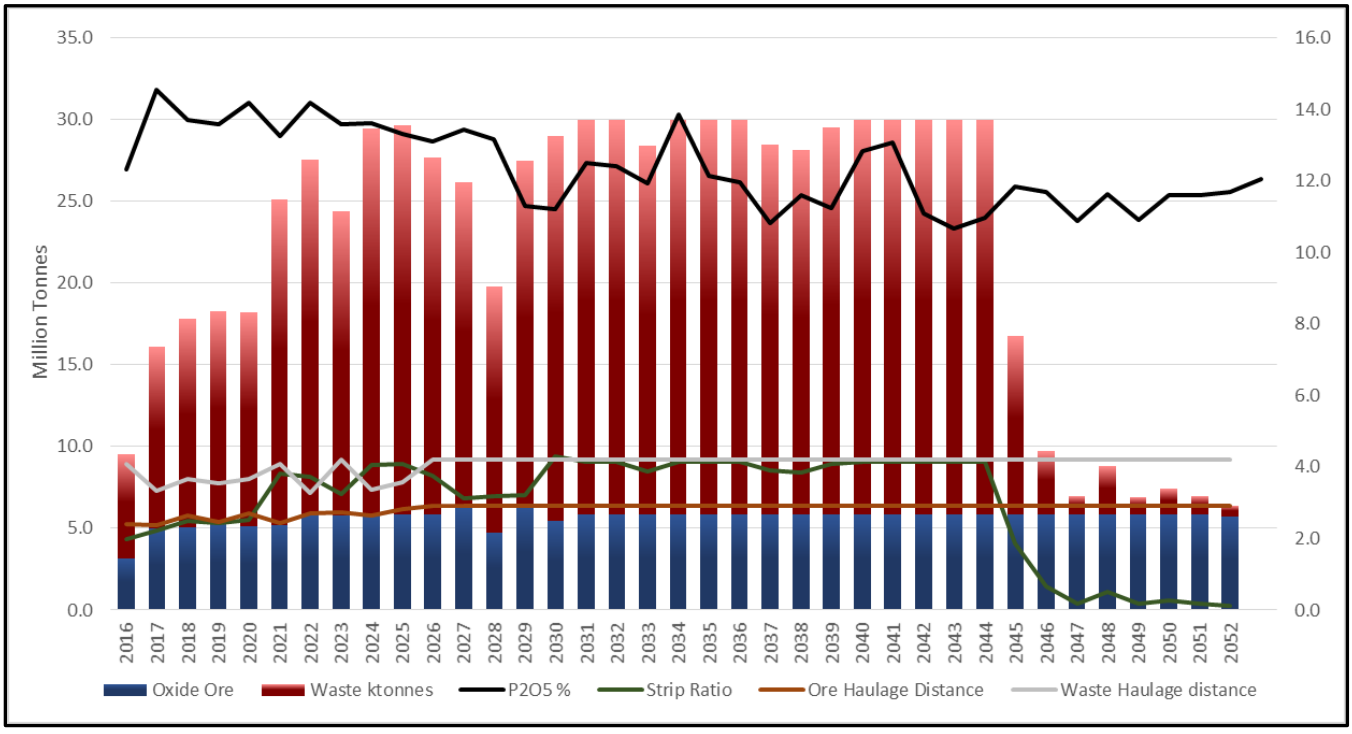
Table 9-10 Fertilizer Average Production 2016-2020 by Product

Fertilizer Type	Average 2016-2020 Production (t Product)
Catalão	
High Analysis*	296,000
Low Analysis	620,000
Cubatão	
Low Analysis	541,000
High Analysis*	62,000
*Phosphoric**	102,000
*Sulphuric**	0

**Includes DCP,* it is noted that DCP is not regarded as a high analysis product however has been included in this aggregate form

Source: Provided by the Company and reviewed by RPM.

Figure 9-2 Chapadão Mine Total Movement- RPM Ore Reserve Schedule



10. Processing and Concentrators

The Ore-Processing facilities comprise two phosphate concentrators and three niobium concentrators all located within the Catalão Complex I operations. Ancillary plants associated with the concentrators include the phosphate filtering and drying plant, a niobium crushing and scalping plant, a niobium leaching and pyro-metallurgical plant. The two phosphate concentrators combined have a throughput capacity of 5.8 mtpa (dry) and produce about 1.4 mtpa of concentrate at 37% P_2O_5. The phosphate concentrate is delivered to fertilizer plants located in the nearby town of Catalão and to the town of Cubatão located on the Brazilian coast near the port of Santos.

Two of the niobium concentrators currently process ore from the Boa Vista mine, namely the Boa Vista Fresh Rock Concentrator ("BVFR") and the Boa Vista ("BV") concentrator, while the third processes tailings from the phosphate concentrators ("TA"). The BVFR and BV concentrators have a throughput rate of 2 mpta and produce approximately 11,000 tonnes of pure Nb_2O_5 per year in the form of concentrate at 55% Nb_2O_5. The TA concentrator has a throughput rate of 1.1 mtpa which typically has a grade of 0.7% Nb_2O_5 and produces about 2,300 tonnes of pure Nb_2O_5 per year in the form of concentrate grading about 44% Nb_2O_5.

The concentrate from the three niobium concentrators are pumped to the Leaching and Pyro-Metallurgical Plant that adjoins the two niobium concentrators processing mined rock. At the Leaching and Pyro-Metallurgical Plant the concentrate is first leached with acid and alkali, then calcined, then pyrometallurgically processed to produce ferroniobium alloy. By 2018 this plant will produce about 8,500 tonnes of pure niobium per year. The product is a ferroniobium alloy containing about 65% niobium; accordingly, the annual production of ferroniobium will be about 13,000 tonnes.

10.1 Niobium

Until 1997, feed for the BV concentrator was supplied from the Mina II deposit, while from 1998 to 2000, the BV Concentrator was supplied from Mina I deposit. Since 2000, oxide ore for the BV Concentrator has been supplied by the Boa Vista mine located 25 kilometers northwest of the niobium plants. The new concentrator (BVFR), which was placed in production in late 2014 and is still in start-up phase, processes fresh-rock from the Boa Vista mine. The two niobium concentrators processing mined ore (BVFR and BV) while currently fed entirely by the Boa Vista material, in the future, additionally feed will be sourced with ores from Mine I and Mina II. A simplified ore-processing flow diagram for the niobium plants is shown in ***Figure 10-1*** while the principal parameters for all of the niobium plants, are shown in ***Table 10-1***. RPM notes that the concentrate recoveries are currently lower than shown in ***Table 10-1***; however considers that the forecast recoveries are reasonable based on changes to configurations as provided in ***Table 10-2***.

All oxide material is trucked as run-of-mine (ROM) material from the Boa Vista mine to the BV concentrator without prior crushing, however the fresh rock is processed through a scalping plant at the Boa Vista mine site. The ore is subsequently trucked to Catalão I complex where it is placed in a stacker and reclaiming system ahead of the grinding mills, however some of the crushed fresh rock is placed in a separate stockpile located alongside the ROM weathered/oxidized ore stockpile providing part of the feed for the BV concentrator.

Oxide material at the BV is crushed by a primary jaw crusher and secondary hammer mill and stockpiled ahead of the grinding mills. RPM notes that currently the BV concentrator is currently processing about 70% run-of-mine oxidized ore and about 30% crushed fresh rock; however this proportion will change and only oxide material and material from Mina I and Mina II will be proceed at BV.

Feed for the Tailings (TA) Concentrator is the fine fraction of the phosphate flotation tailings from the Phosphate Concentrator (following separation) and constitutes about 15% of all of the total Phosphate Concentrator tailings.

Table 10-1 Niobium Plants, Principal Parameters

Niobium Concentrators	Units	BV	BVFR	TA
Ore				
Processing rate	dry t/year	600,000	1,470,000	1,100,000
Concentrate Production				
Recovery	percent	50	56	30
Concentrate grade	$\%Nb_2O_5$	55	55	44

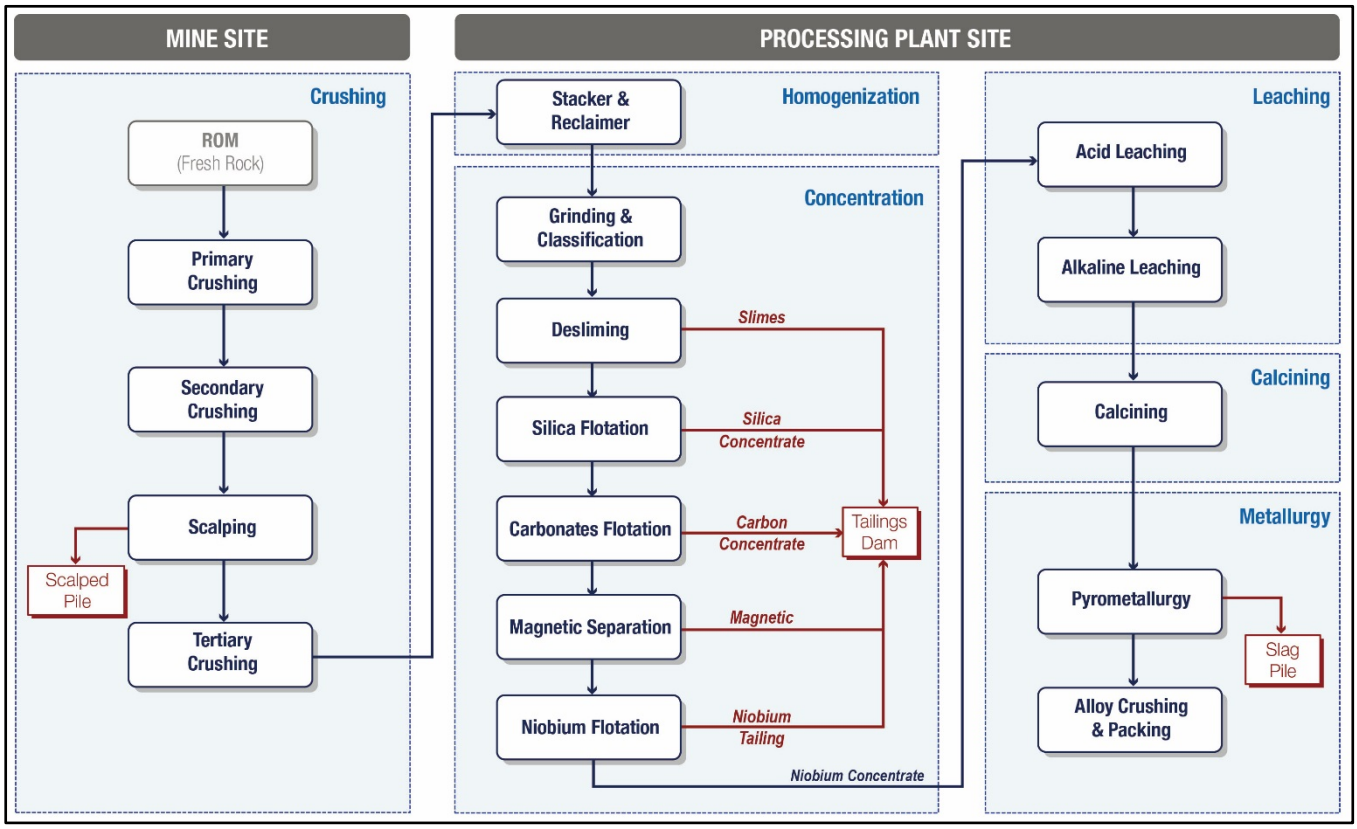
Source: Provided by the Company and reviewed by RPM.

Table 10-2 Niobium Plant Recoveries, Current and Projected

Concentrator	Recovery		Reason for Projected Recovery Increase
	Current	Projected	
BV	40%	50%	Gradual increase in proportion of fresh-rock feed will raise recovery
BVFR	48%*	56%	Still in commissioning of complex project; correcting the blending will improve recovery;
TA	25%	30%	Niobates, which have low Nb_2O_5 content and low recovery, will decrease and pyrochlore, which has a high Nb_2O_5 content and high recovery, will increase with increasing proportion of Mina II in feed to the phosphate plants

**As out June, 2016*
Source: Provided by the Company and reviewed by RPM.

Figure 10-1 Simplified Niobium Flowsheet



10.1.1 Niobium Concentrators

The ore-processing system (following crushing) for BV and BVFR concentrators follow typical practices for niobium processing producing a concentrate at 55% Nb_2O_5 while the TA plant produces a concentrate at 44%. A list of principal equipment at the concentrator is included in ***Table 10-3***.

10.1.2 Leach and Pyro-Metallurigcal PLant

The concentrate produced by the three niobium concentrators is pumped to the adjacent Leaching Plant for further processing. Due to the differing chemical properties, the concentrates from the BV, the BVFR and the TA Concentrators are separately leached. The concentrates are initially leached with hydrochloric acid (HCl) and subsequently with caustic soda (NaOH). Leaching serves primarily to minimize phosphate contaminant in the final product, following which the leached concentrates are combined and filtered. The filter solids are then calcined in a heavy-oil-fired rotary calcining kiln where the discharge temperature is 900^{o}C.

Following leaching the calcined concentrates are transferred to the Pyro-Metallurgical Plant where they are pyro-metallurgically processed in a batch process using crucibles to produce ferroniobium alloy. The Thermite process is used to reduce the calcine to metal (***Figure 10-1***). In this process aluminum powder, hematite, saltpeter (KNO_3) fluorite, and lime are mixed with the calcine, and the mixture is then lit. Following the reaction, the liquid slag is tapped off, the crucible is allowed to cool, and the ferroniobium-alloy button removed, together with some high-grade slag adhering to it which is subsequently separated from the alloy button. The alloy button is crushed, screened, packaged, and trucked 750 km to the port of Santos for sale to international markets (***Figure 2-1***). The high-grade slag is processed on site using a rod mill followed by a jig and spirals to gravity concentrate and recover the ferroniobium-alloy prills from the slag. The recovered alloy prills are recycled to the Pyro-Metallurgical Plant furnaces for further refining and product production. The design criteria and equipment lists of the Leach and Pyro-Metallurgical Plant are shown in ***Table 10-4 and Table 10-5*** respectively.

Waste solutions and slurries from the Leaching Plant and the Pyro-Metallurgical Plant are pumped to the Unidade de Recuperação de Liga (URL) (Alloy Recovery Unit) pond for storage (***Section 10.1.4***).

Table 10-3 Niobium Processing Equipment List

Item	Description	Qty.
Crushing and Scalping Plant		
Vibrating grizzly		1
Primary crusher	Jaw	1
Primary screen	Banana, 2 deck, 32mm & 12. 7 mm	1
Secondary crusher	Cone, 30 mm closed-side setting	1
Secondary screen	Banana, 2 deck, 32mm & 12. 7 mm	1
Tertiary crusher	Cone, 10 mm closed-side setting	1
Magnetic separators	Rare-earth drum	2
BV Concentrator		
Primary crusher	Jaw	1
Screen	1-deck	1
Secondary crusher	Hammer mill	1
Scrubber		1
Magnetic separator	Low intensity	1
Rod mill		1
Ball mills		2
Desliming-cyclones circuit	4- and 1. 5-inch cyclones	1
Silica-flotation circuit	Roughers and cleaners	1
Carbonate-flotation circuit	Roughers and cleaners	1
Magnetic separator	Low-intensity, with two 36-inch drums	1
Niobium-flotation circuit	Roughers and cleaners	1
BVFR Concentrator		
Primary ball mill	4.1- x 5.64-m, 1,750 kW	1
Secondary ball mill	4.1- x 5.64-m, 1,750 kW	1
Desliming-cyclones circuit	6- and 2-inch cyclones	1
Silica-flotation circuit	Roughers and cleaners	1
Carbonate-flotation circuit	Roughers and cleaners	1
Magnetic separator	Low-intensity, with two 36-inch drums	1
Niobium-flotation circuit	Roughers and cleaners	1
Sulphide-flotation circuit	Roughers and cleaners	1
TA Concentrator		
Desliming-cyclones circuit		1
Magnetic separator	Low intensity	1
Screens	High-frequency Derrick, 100 mesh	3
Screens	High-frequency Derrick, 150 mesh	2
Primary desliming circuit	1.5-inch cyclones	1
Magnetic separator		1
Secondary desliming circuit	1.5-inch cyclones	1
Silica-flotation circuit	Roughers and cleaners	1
Third desliming circuit	1.5-inch cyclones	1
Fourth desliming circuit	1.5-inch cyclones	1
Niobium flotation circuit	Roughers and cleaners	1

Note: Provided by the Company.

Table 10-4 Niobium Leaching and Pyro-Metallurgical Design Criteria

Plant	Product	Units	BV	BVFR	TA
Leach	To leached product	%	96.5	96.5	96.5
Pyro-Met	To ferroniobium alloy	%	92.5	92.5	92.5

Note: Provided by the Company.

Table 10-5 Niobium Leaching and Pyro-Metallurgical Plant Equipment List

Item	Description	Qty.
Leaching Plant		
(Three parallel systems for BV, BVRF, and TA concentrates)		
Feed storage tanks		3
Feed filters	Vacuum, rotary	3
Acid-leach tanks		3
Acid-leach filters	Vacuum, rotary	3
Alkaline-leach tanks		3
Alkaline-leach filters	Vacuum, rotary	3
Leached-slurry solid/liquid separation		
Filter	Horizontal-plate, pressure	1
Cyclone separator		1
Cyclone-fines thickeners		2
Cyclone-fines filter	Vertical-plate, pressure	1
Calcining kiln	Rotary, heavy-oil fired	1
Pyro-Metallurgical Plant		
Calcine storage bin		1
Calcine/aluminium/flux mixer	Stirred drum	1
Smelting crucibles		5
Alloy crushing circuit		
Primary crusher	Jaw	1
Screen	Two-deck	1
Secondary crushers	Jaw	2
Screen	Three-deck	1
High-grade-slag processing circuit		
Rod mill		1
Cyclones clusters		4
Jig		1
Spirals		2

Note: Provided by the Company.

10.1.3 Planned Modifications and Updates

RPM notes that Modification and upgrading of the niobium plants is currently in progress or planned for the future. These are aimed at improving both the throughput efficiencies and recoveries of the plants. The works include primarily include the BV plant optimization to modify the plant to process hard rock from Mina II by 2019 (including Mina II infrastructure)

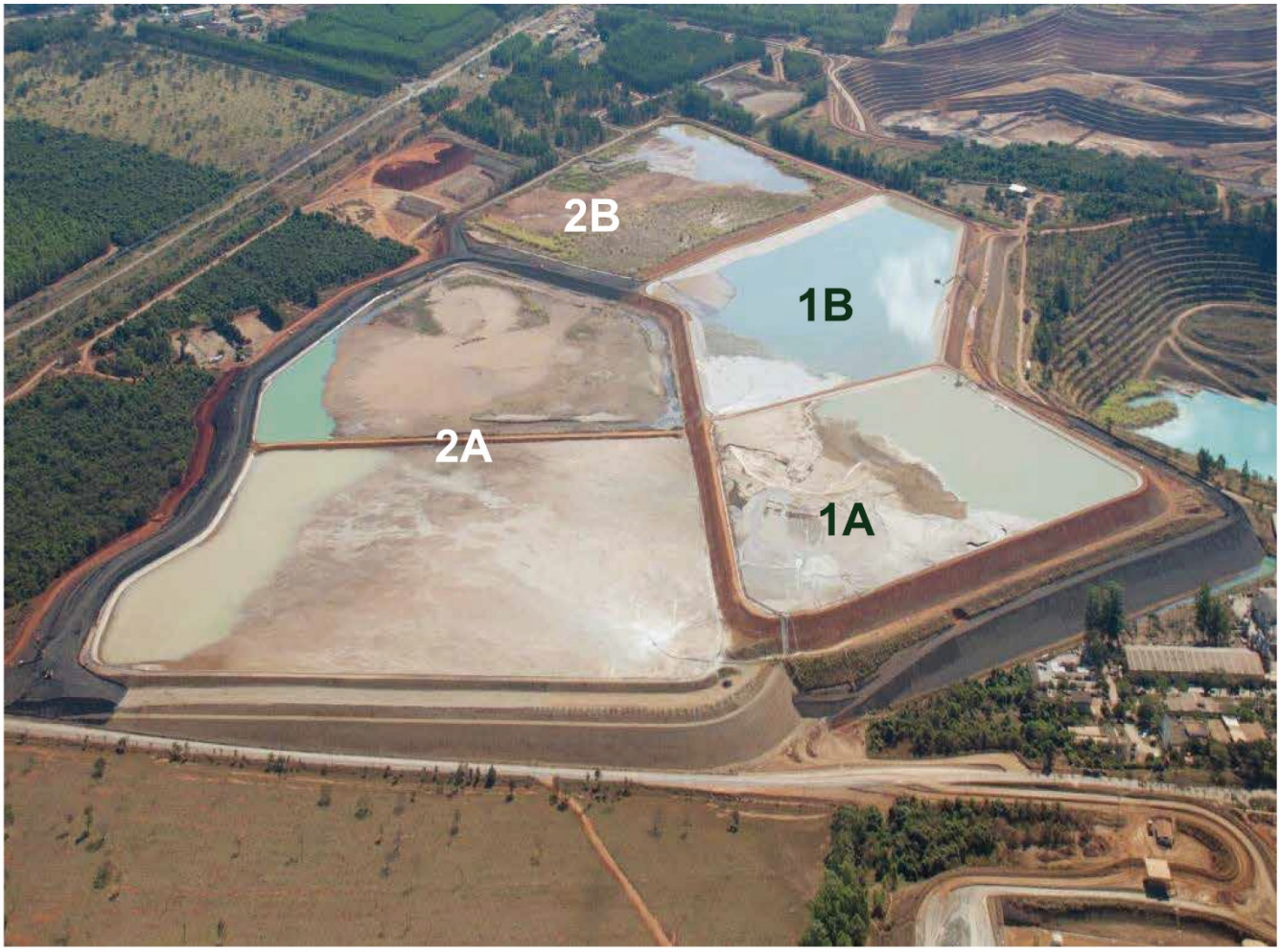
10.1.4 Tails Storage Facilities

Four existing adjacent Tails Storage Facilities ("TSF'S"): 1A, 1B, 2A, and 2B (***Figure 10-2***) support the Niobium production all of which are ring-type ponds constructed by perimeter dikes, some of which are built of clay. Currently TSF 1A and 1B are full and inactive with TSF 2A has just been raised and operational; and, TSF 2B is currently being raised. Some of these TSFs are on a separate third party license, however the Company has a land use agreement in place to facilitate this use (***Section 3***). Water is currently recirculated to the plant from TSF 1B (***Section 12***).

In addition to the current TSF's, two future TSFs are planned to be constructed which are designated the Macaúbas and the LOM TSF's, which are outlined below. RPM highlights that the planning for Niobium TSF capacity requirements considers that all existing and future Niobium TSF's utilize conventional tailings slurry deposition (no thickening) and water reclaiming from the TSF supernatant pond for recirculation to the plant. The tailings require a composite low permeability liner system consisting of a geomembrane layer and a clay layer. In the recent raise of TSF 2A and the planned raise of TSF 2B, the clay layer has been replaced with an equivalent geosynthetic clay liner (GCL) due to the density of the tails.

The documents reviewed include design reports for the raises of TSFs 2A and 2B to El.906 m; design of the monitoring instrumentation system; stability analysis for the raises to El.906 m; a quarterly inspection report dated February 2015; and an emergency action plan (EAP). It is reported that these TSFs are inspected quarterly

Figure 10-2 Panoramic View of Niobium TSF's



in compliance with federal law for dam safety, however not all inspection reports were not available for review however this is not considered material to this review.

TSF History

TSF 1A and 1B were initially constructed in 1980 to crest El.881 m and subsequently 2A and 2B were constructed to the west and northwest (***Figure 10-1***). Foundation soils consist of residual silty clays with the perimeter dikes constructed with clay from the Boa Vista pit, compacted by trucks. Several subsequent raises were completed by the upstream method up to El.895 m, using mainly clay, with some zones of granular soils. Internal drainage was included in the design of these raises. The maximum dike height at El 895 m is 27 m as shown in two typical cross-sections of the TSF 1A and 1B dikes are shown in ***Figure 10-3***. The perimeter dikes for 1A, 1B were subsequently raised by the upstream method to their current El.906 m, with maximum heights of about 38 m.

TSF 2A and 2B have all be constructed to the current EL.895 by the downstream method (***Figure 10-4***); the perimeter dike (western side) for 2B has also been designed to be raised to El.906 m by the downstream method. These dikes are built of gravel in the bottom and clay towards the pond and in the upper portion. The upstream face of the dikes and the bottom of the ponds are lined with a composite liner consisting of a 1.5-mm-thick high-density polyethylene (HDPE) geomembrane overlying a GCL. These raises include an internal drainage system.

In accordance with the Brazilian regulations, TSF's 1A, 1B, 2A, and 2B are classified as Class C, with low risk category and high associated potential damage. The dikes have four monitoring stations with two Casagrande piezometers and one vibrating-wire piezometer each. Additionally, prisms are installed to detect any movements which are reviewed on regular intervals.

Previous and Planned Raises

To support the forecast production a number of construction phases will be undertaken, these include:

- TSF 2A dikes were raised to El.906 m in March 2016 to allow a capacity is 1.92 M cu.m and will provide storage through mid-2017. With the completion of construction, the Environmental Control Report (RCA) is was prepared and the construction license (Licenca de Instalacao - LI) issued.
- TSF 2B dikes are planned to be raised to El. 906 m in April 2017 for utilization in June, 2017 providing a capacity of 2.7 M cu.m and storage availability through April 2019. The study for this raise was filed with SEMARH.
- The existing Macaúbas water dam will be converted to a TSF (see below), which will include an initial raise from its current crest El.817 m El.823 m and subsequently to El.835 m, with both raises designed by the downstream method. Its final height will be about 38 m. At the final El.835 m it will have a capacity of 15 M cu.m and would provide tailings storage capacity through December 2030. A FEL-1 Conceptual level study was completed in December 2015 and basic engineering is planned completion in 2016. Construction of the first raise is expected to start in 2018 and be completed in 2019.
- Based on the estimated production schedule as presented in this Report, the remainder of the mine life will require a capacity of 13 M cu.m based on a FEL-1 Conceptual analysis which was completed in December 2015. While construction is planned to commence in 2029 with commissioning in 2030 to coincide with the closure of the Macaúbas dam TSF no detailed designs have been completed to date. RPM noted during the site visit that that there is suitable land to allow construction of an additional TSF for the remainder of the mine life. While it is planned to construct the LOM TSF for the current LOM plan, RPM is aware various alternatives are being analyzed with a final decision not pending or required for a number of years.

The current plan and schedule for raising TSFs 1A, 1B, 2A, and 2B, and developing the Macaúbas and LOM TSFs is shown in ***Figure 10-5***.

Figure 10-3 – Typical Cross Sections of Niobium TSFs 1A and 1B

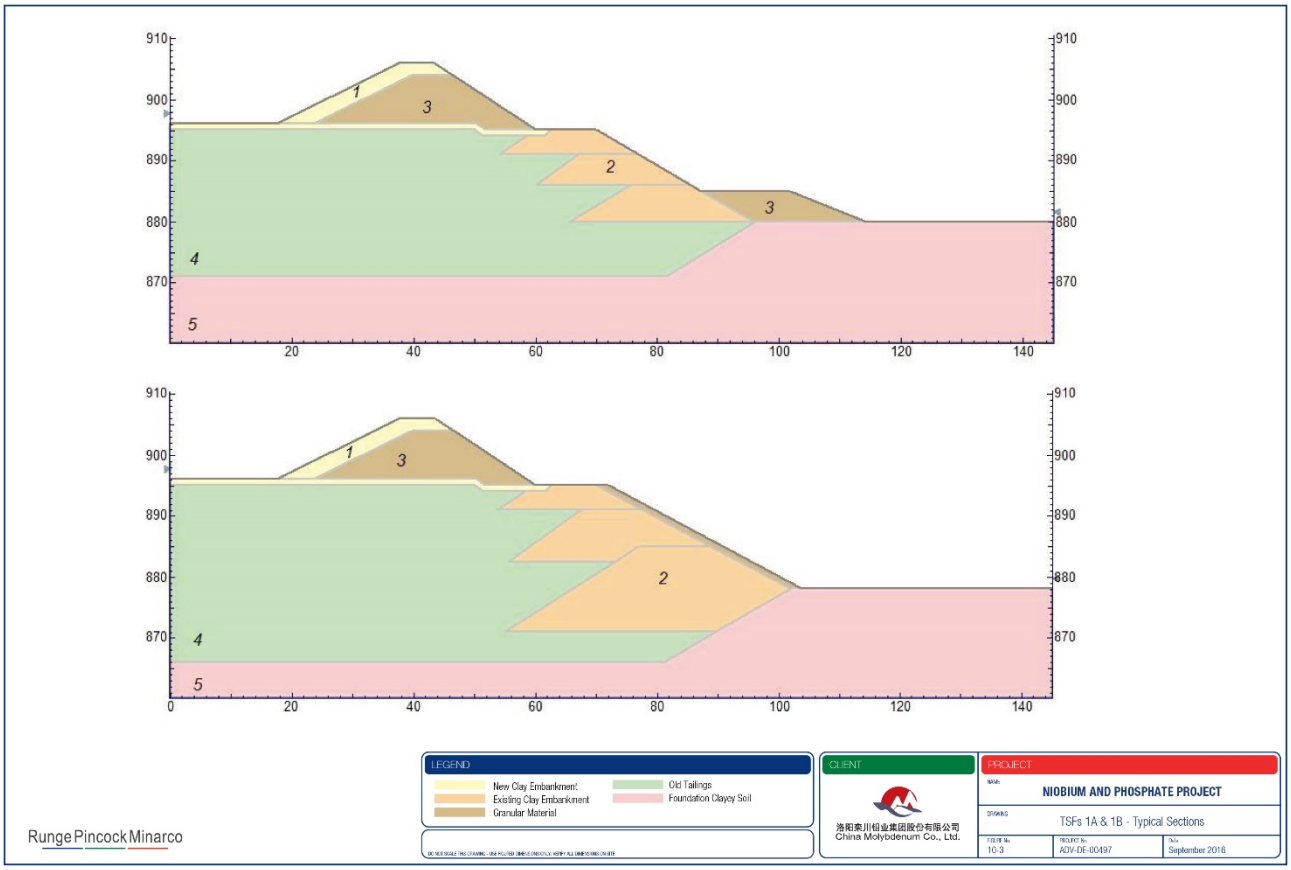


Figure 10-4 TSF 2A - Typical Section

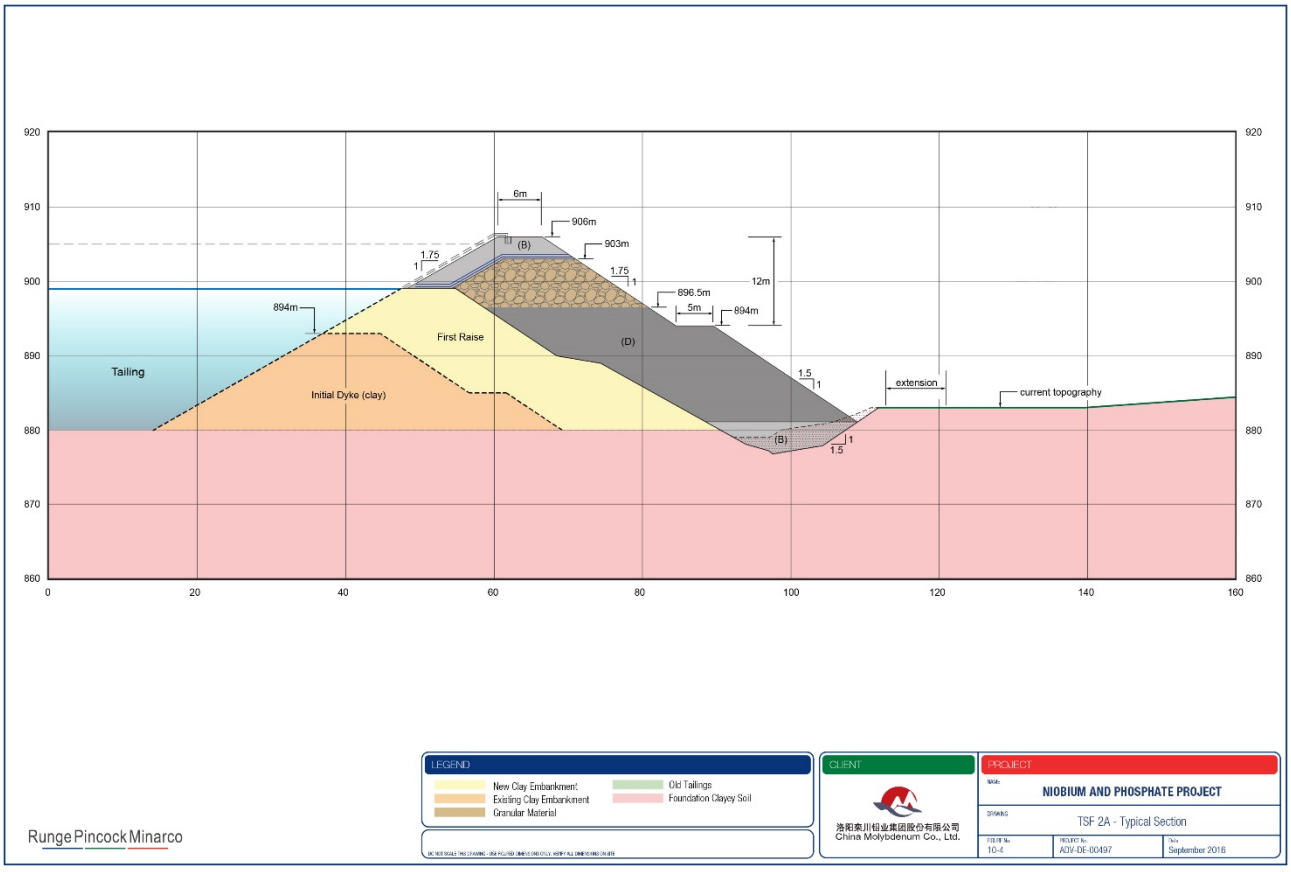
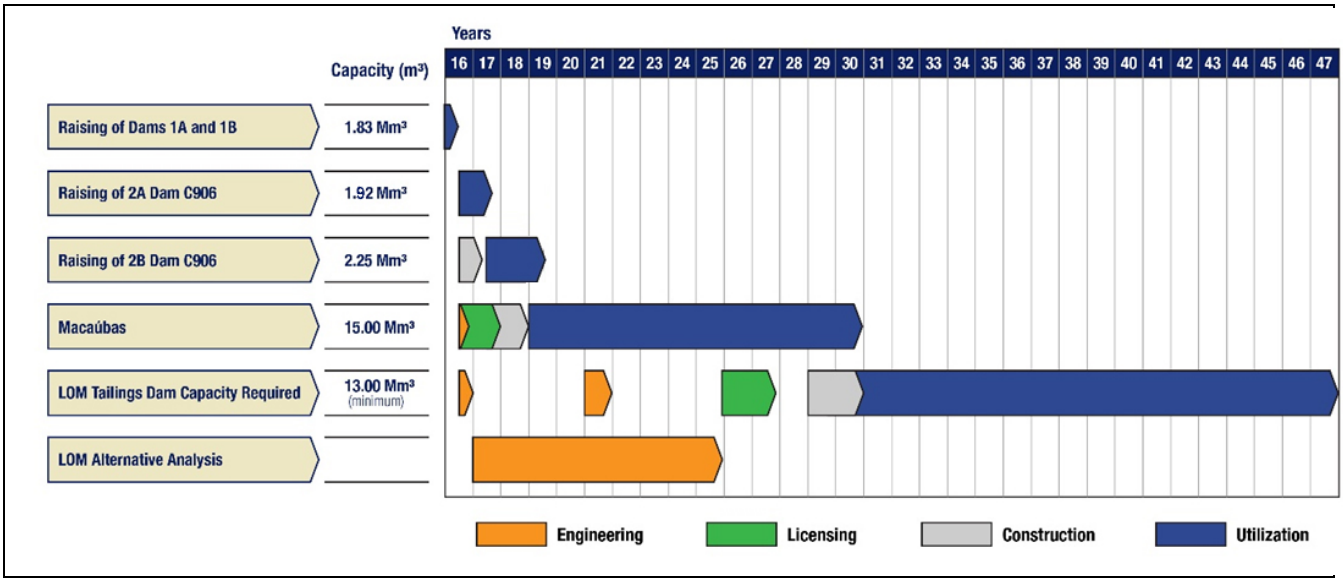


Figure 10-5 Niobium TSF Schedule



Macaúbas Water Dam - Current

The Macaúbas water dam has a current height of approximately 22 m and a homogeneous compacted clay cross-section over a cutoff trench, with a 10-m wide crest (***Figure 10-6***). The Macaúbas dam is currently utilised to store water for the dry season (August to October) and has a pump and pipeline to transport water to the Phosphate Plant TSF with a capacity of approximately 2 M cu.m. During 2018 and 2019 it is planned to convert this dam into a Niobium TSF (two raises to EL.835) with the water contribution loss to the Phosphate plant filled by a sump within the Chapadão Pit and additional wells, according to the water master plan (***Section 12.3***).

The documents reviewed include design reports and construction specifications; design of the monitoring instrumentation system; quarterly inspection reports for April, June, and October 2015; and an emergency action plan (EAP) developed based on a simulated dam break and inundation study. RPM noted that the Macaúbas dam is inspected quarterly in compliance with federal law for dam safety.

The Macaúbas water dam was originally designed with two raises, to El. 817 m and 835 m, however only one raise was constructed with no current plans to raise this dam for water supply purposes. The current cross-section includes an internal drainage system which consists of a vertical drain, a blanket drain under the downstream slope, rockfill toes, and 26 relief wells. The dam monitoring instrumentation consists of eleven piezometers, six water level (open pipe) indicators, a water level scale, and a meter to measure flow rate from the internal drainage system.

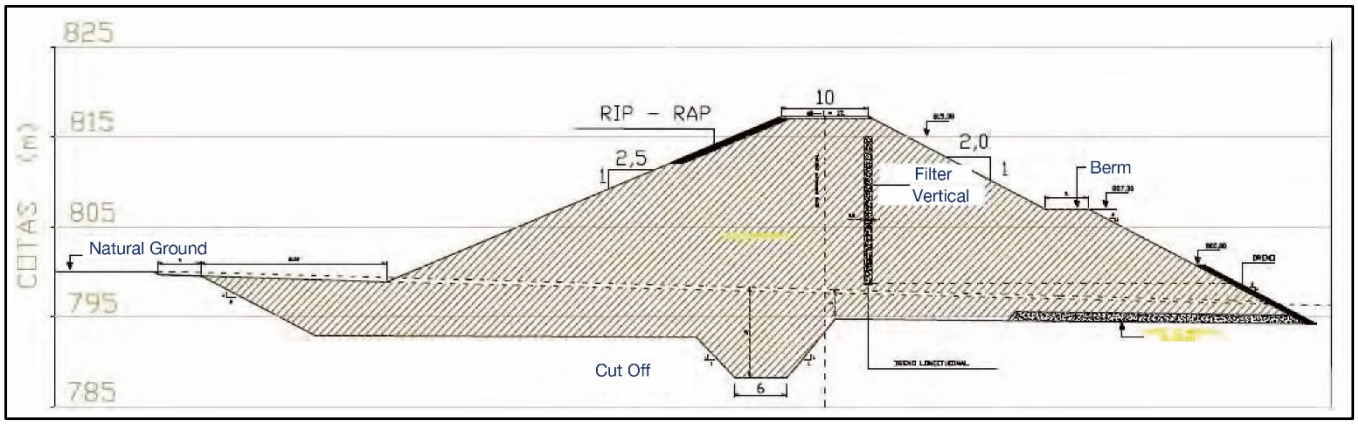
Comments

- The studies and design for the 1A, 1B, 2A and 2B and the planned raises appear generally adequate with the stability analysis indicates an adequate factor of safety. While the Macaúbas and LOM TSF are at a conceptual level, with further engineering planned to be completed, RPM considers the design to be practical and achievable within the timeframe for both construction and permitting.

  The downstream slope of the dam looks in good condition and does not show indications of cracks, settlement, or seeps. With visual observation indicates that the concrete spillway appears in good condition.

- No indication of stability issues were reported or observed, however construction reports were not available and apparently dispersivity of the used clays was not checked with the exception of the 2A TSF. Therefore, it is recommended to maintain the current monitoring and inspection program and implementing a very strict third-party review.

Figure 10-6 Macaúbas Water Dam Cross Section



10.2 Ouvidor Phosphate Concentrators

Ore for the two phosphate concentrators is supplied by the Chapadão mine which adjoins the plants. The concentrators are designated Plant 47 and the other Plant 76 with Plant 47 commissioned in 2003 while Plant 76 was commissioned in 1979. A simplified ore-processing flow diagram for the phosphate concentrators is shown in ***Figure 10-7***, while the principal processing parameters for the two phosphate concentrators are shown in ***Table 10-6***. Given the relatively consistent style of mineralisation within the deposit, the production parameters are projected to remain reasonably stable over the mine life with the quantity of ore processed increasing slightly in conjunction with a slight drop in feed grade resulting in maintaining approximately the same concentrate production rate.

Table 10-6 Phosphate Concentrators (Ouvidor 47 and 76), Principal Parameters

Parameter	Units	Value
Ore		
Plant 47	dry t/hr	500
Plant 76	dry t/hr	360
Combined Processing rate	dry Mtonnes/year	5.8
Concentrate		
Grade	$\%P_2O_5$	37
Recovery	percent	72

Note: Provided by the Company.

The two concentrators share a common crushing and crushed-ore stockpiling and reclaiming facility. The ore-processing systems of both concentrators are identical (as noted in the equipment list in ***Table 10-7***), including two-stage grinding using rod mills as the first grinding stage. Rod milling is followed by low-intensity magnetic separation with rejection of the magnetic fraction and ball milling of the non-magnetic fraction. Ball milling is followed by de-sliming, barite flotation, phosphate flotation, and, finally, by high-intensity magnetic separation to eliminate mildly-magnetic iron minerals from the concentrate. The major part of the tailings from the two phosphate concentrators, specifically the magnetic and slimes fractions, flow to the adjoining Buraco tailings dam. The magnetic fraction flows directly in a launder to the tailings dam; the slimes fraction is first thickened before passing to the tailings dam. Typically 15% of the total tails material of the tailings from phosphate flotation, are pumped to the adjoining Niobium Tailings (TA) Concentrator.

Concentrate from both concentrators is combined and pumped 7 km to a facility adjoining the Catalão Fertilizer Plant where the concentrate is separated into coarse and fine fractions and the two size fractions separately filtered. All of the fine fraction and a portion of the coarse fraction is fed directly to the Catalão Fertilizer Plants. The remaining half of the coarse fraction is dried, loaded on rail cars, and shipped 770 km to the Cubatão Fertilizer Plant located near the port of Santos.

Separate to the phosphate processing stream, the barite flotation circuits of both plants were installed in 2014 to allow production of a barite product. Barite concentrate is filtered and placed in a covered storage building. The material is shipped in bulk, primarily to buyers serving the oil-drilling business. When there is no market for the barite, which is currently not the case, the barite concentrate goes to the phosphate TSF.

Figure 10-7 Phosphate process Unit Operations

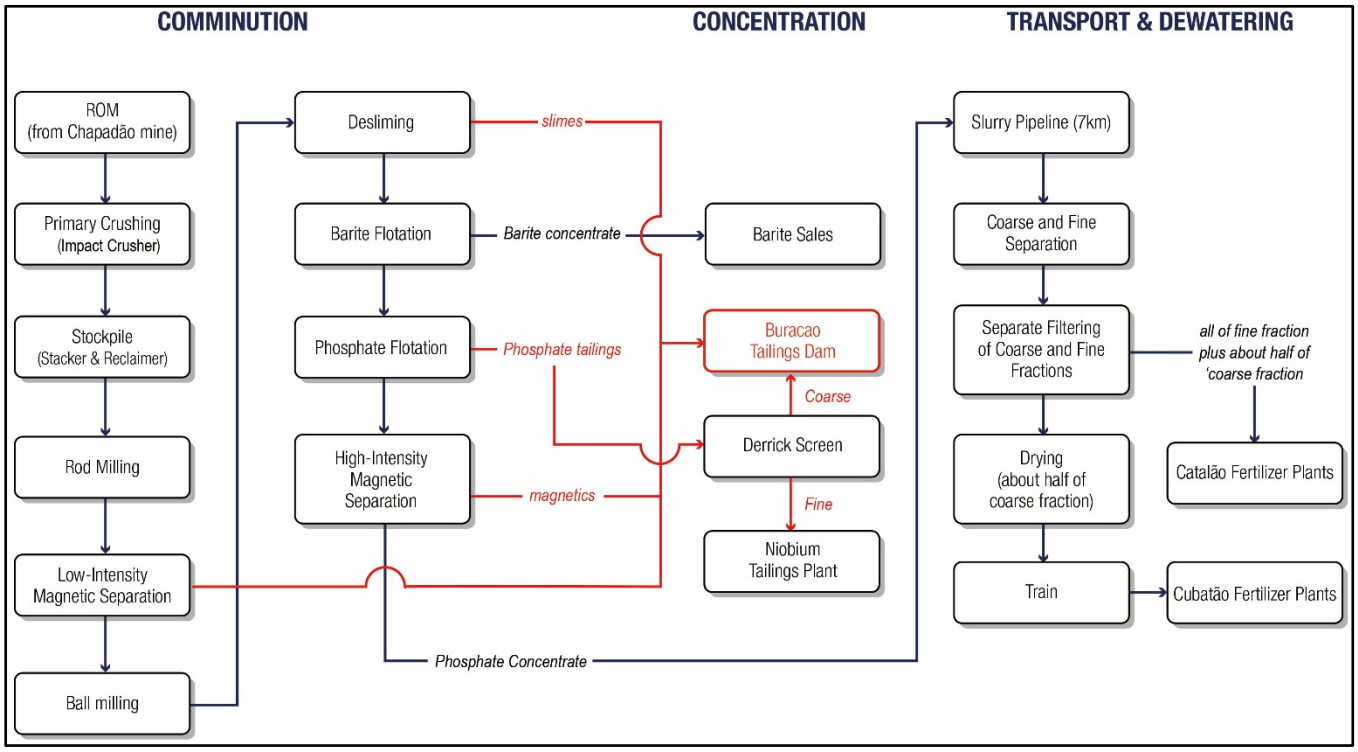


Table 10-7 Ouvidor Phosphate Concentrator Equipment List

Item	Description	Qty.
Ouvidor Crushing Plant (Serves both 47 and 76 Concentrators)		
Screens	3/4-inch, single deck	2
Crushers	Impact Crusher	2
Stockpile	Blending stockpile/reclaimer	1
Ouvidor 47 Concentrator		
Rod mill	12- x 17-ft	1
Ball mill	15- x 16.5-ft	1
Magnetic separator	Drum, low intensity	1
Desliming-cyclones circuit		1
Slimes thickener		1
Barite-flotation circuit	Roughers and cleaners	1
Barite filter		1
Barite stockpile		1
Phosphate-flotation circuit	Roughers, scavengers, & cleaners	1
Magnetic separator	Jones-type, high-intensity	1
Concentrate thickener		1
Concentrate pipeline	7-km-long to Cubatão	1
Ouvidor 76 Concentrator		
Rod mill	10- x 17-ft	1
Ball mill	9- x 12-ft	1
Magnetic separator	Drum, low intensity	1
Desliming-cyclones circuit		1
Slimes thickener		1
Barite-flotation circuit	Roughers and cleaners	1
Phosphate-flotation circuit	Roughers, scavengers, & cleaners	1
Magnetic separator	Jones-type, high-intensity	1
Concentrate thickener		1

Note: Provided by the Company.

10.2.1 Tailings Storage Facilities

Only one Tails Storage Facility ("TSF") is currently in operation for the phosphate Catalão operations, namely the Buraco TSF, however, a previously utilised TSF, the Macaúbas Dam, is currently used for water storage. The Buraco TSF was constructed in 1978 and it is an unlined facility. The crest of the Buraco TSF is currently at El. 855 m; the current 46-year LOM plan (2016-2061) reviewed by RPM includes raising the crest to El. 890 m. RPM notes that, while this is planned, the permitting for the LOM beyond 2021 is not yet complete.

Documents provided to RPM included design reports and construction specifications for the raises to El.850 m and El.860 m; design of the monitoring instrumentation system; stability analysis for the raise to El 870 m; construction reports for the raises to El.850 m and El.860 m; quarterly inspection reports for March, June, and October 2015; and an emergency action plan (EAP) developed based on a simulated dam break and inundation study. It should be noted that the Buraco TSF is inspected quarterly in compliance with federal law for dam safety.

The Buraco TSF is a valley-type TSF located in the Buraco creek, closed at its downstream end by a containment dam constructed of compacted clay and compacted coarse tailings. Average annual precipitation at this location is about 1,400 mm, however this varies significantly with precipitation was approximately 1,200 mm in 2015. The containment embankment is formed by a central main embankment and two lateral dikes. In accordance with the Brazilian regulations, the Buraco dam is classified as Class C, with low risk category and high associated potential damage. The Buraco TSF utilizes conventional tailings slurry deposition (no thickening) and water reclamation from the TSF supernatant pond for recirculation to the plant.

Previous and Currently Planned Raises

The Buraco containment dam has been raised several times since its initial construction to El.810 m with a current crest elevation of 855 m, which corresponds to a height of 65 m as shown in the current cross-section in ***Figure 10-7***. The history and planned raises are summarised below:

- The initial starter dike has a homogeneous cross-section built of compacted clay to crest El.810 m, foundation at El.794 m and downstream toe at El.790 m.
- Nine raises were completed by the downstream method up to El.837.5 m. In the downstream raises the expanded containment dam is founded on natural ground (***Figure 10-8***). Each of these raises was constructed using a combination of compacted clay and compacted coarse tailings. The clay was used to form an upstream low-permeability core, while the compacted coarse tailings were used to form the downstream slope. The coarse tailings used were cyclone sands.
- From El.837.5 m to El.850 m, three subsequent raises were conducted by the center line method through 2012 (***Figure 10-8***). In center line raises about half of the expanded containment dam is founded on natural ground and the other half on previously deposited tailings. A combination of a compacted clay core and compacted coarse tailings to form the downstream slope was also used for each of these raises. The coarse tailings used were cyclone sands. It is reported that the raise to El.850 m will provide capacity through December 2017.
- In 2013, one 5-m high upstream raise to current El.855 m was completed which increased the capacity by 6 M cu.m, which will provide capacity through December 2019. This raise was constructed using compacted coarse tailings excavated from the upstream tailings beach. The coarse tailings excavated from the beach are expected to include more fine particles than the cyclone sands used for the previous raises. The lateral dikes were raised utilizing compacted clay. The operating license (Licenca de operacao - LO) was issued by SECIMA and is valid until May 30, 2019.
- The current plan is to raise to El.860 m during 2018-2019 for an additional capacity of 8 M cu.m, which would provide capacity through the end of 2021. The design of the containment dam for this raise is similar to the previous one, that is, upstream raise using compacted coarse tailings excavated from the upstream tailings beach. The raise of the lateral dikes are designed utilizing compacted clay as with the current raise. The construction licensing and land acquisition for this raise are complete.
- A FEL3 study for upstream raising to El.870 m is planned to be completed by 2019-2020. This raise would have capacity of 28 M cu.m, which would provide storage through 2032.
- Another potential upstream raise is considered, designated as "LOM raise" to El.890 m, with capacity of 90 M cu.m which would provide storage capacity through the current LOM. After this raise the maximum embankment height would be over 100 m (crest to downstream toe).
- RPM is aware that although the current plan encompasses upstream constructions, the technical feasibility of raising the Buraco dam up to El.920 m by alternative methods was evaluated by a third party. The conceptual cross-section considered in this evaluation is shown in ***Figure 10-8***. It should be noted that this design is different than the design used in current the LOM plan and RPM Ore Reserve cash flow analysis. If this design was to be adopted it is likely additional Capital would be required which is not accounted for in the CAPEX presented in ***Section 14***. RPM is aware the Company is current reanalyzing the TSF storage LOM plan which includes alternative methods, and optimizing the construction. RPM considers this a suitable approach, with adequate time to evaluate alternatives of deemed optimal.

Containment Dam

As indicated above, the containment dam for the Buraco TSF is formed by a central main embankment and two lateral dikes and the current crest elevation is 855 m, which corresponds to a height of 65 m. Subsurface conditions consist of a 1 to 3 m thick upper layer of silty-clayey colluvial soil, with isolated gravel particles. Underlying the upper layer there is a layer of residual soil, generally 6- to 10-m thick, consisting of silt to silty sand, firm to very stiff. Then the residual soil changes gradually to weathered bedrock.

Documentation about properties of the clay used for the starter dike and the raises through El.850 m was supplied to RPM in the construction reports which included the clay used is from the upper layer of residual,

lateritic soil that exists in the area. This clay has liquid limit (LL) between 44 and 45, plasticity index between 8 and 9, and its geotechnical classification is ML (low to medium plasticity clayey silt). RPM notes that dispersivity of the used clays should be evaluated.

The main embankment and the lateral dikes have an internal drainage system consisting of a vertical filter, a blanket drain, and toe drains. The containment dam has a current total crest length of 2.8 km, of which 1.7 km corresponds to the main embankment, and crest width of 10 m. Its cross-section includes an internal filter/drainage system within the clay core consisting of a vertical filter, a toe drain, intermediate drains, and a rock fill toe.

The TSF includes a concrete spillway through the left abutment of the containment dam (***Figure 9-2***), which includes an approach channel, the spillway proper, and a discharge channel with energy dissipation steps that discharges to the Buraco creek. The operational freeboard is 3 m, which includes 2 m allowance for flood storage and 1 m for wave action. There is no freeboard allowance for seismic settlement, based on the low regional seismicity. It should be noted that, in addition to the tailings water and runoff, the Buraco TSF also receives water from the nearby Vale TSF.

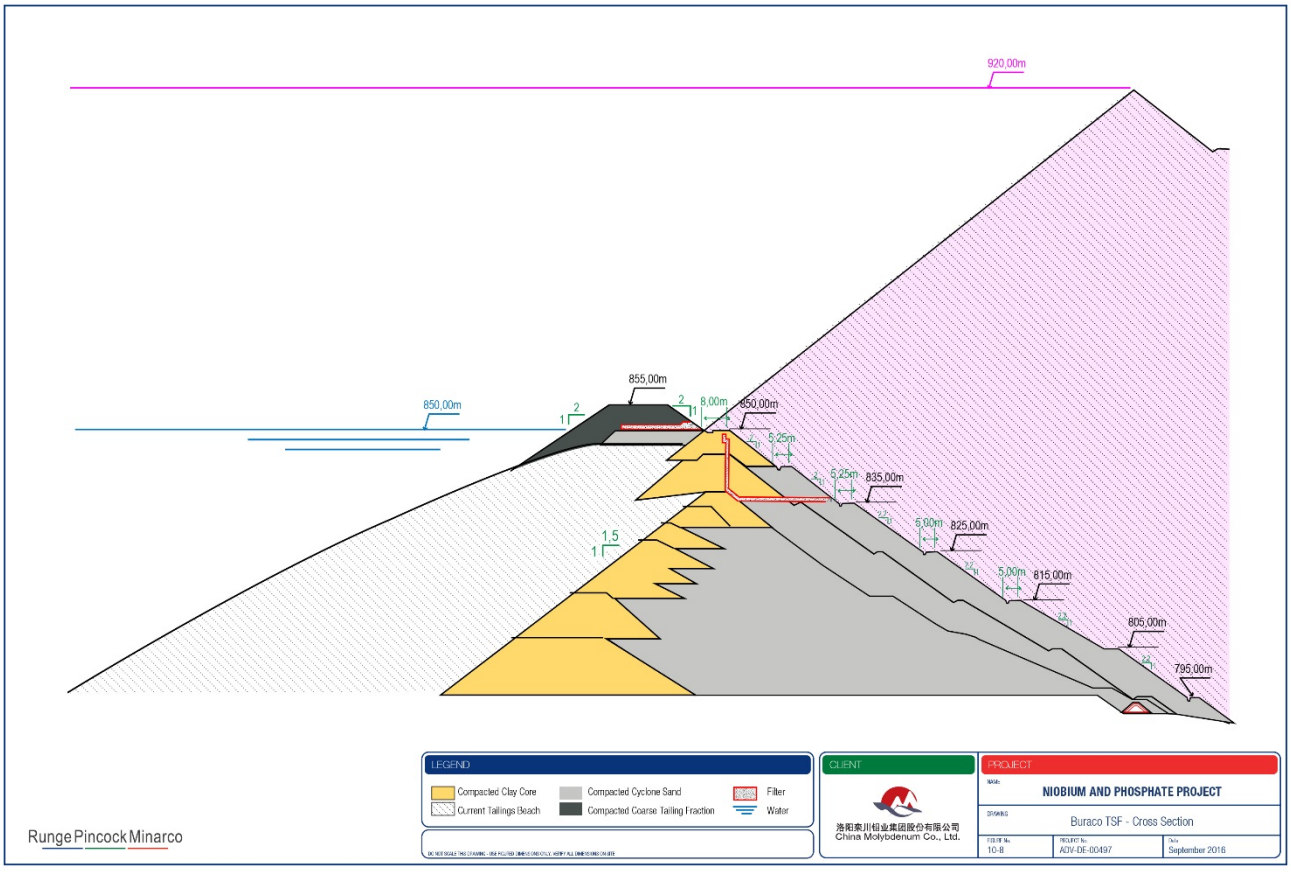
The containment dam instrumentation consists of seven piezometers and 28 water level (open pipe) indicators distributed over ten monitoring sections, which monitor the water level within the containment dam and its foundation. Downstream of the dam, two weirs are used to measure flow rate from the internal filter/drain. Inspection reports indicate that no turbidity has been observed in the drainage water. These instruments are measured every 15 days. The dam is reported to be inspected daily by mine personnel and quarterly by a third party. The October 2015 inspection report indicates that one piezometer and the weirs water level meters require replacement.

Comments

RPM notes the following regarding the Buraco LOM TSF plan:

- The studies and design for the current LOM plan appear generally adequate with the stability analyses indicating an adequate factor of safety. RPM does note that the current LOM plan (and as such the CAPEX) has all subsequent raises above El. 855 m planned by the upstream method. In RPM's opinion, these should also be evaluated using a downstream design as proposed by a third party. This method, as outlined in the Conceptual level study by a third party is considered a practical and viable option however would result in an increases with rockfill utilized to construct the containment dam wall. RPM is aware the Company is completing studies to optimize and analyze various alternatives to the current designs.
- The current permitting for the TSF operation is until 2021, additional permitting is required for continued operation beyond this. RPM does however note this is typical for operation in Brazil and part of a standard approach to mining operation. Recent correspondence received by RPM indicates that the neighboring State of Minas Gerais is planning to implement more stringent regulations and limitations for TSF's. The main considerations may be a limitation in height and not allowing upstream raises. If similar regulations are implemented in Goias, the main impact for the Project would be modifying the design of future raises of the Buraco TSF to downstream raises or developing a new TSF (both of which are viable options for the operation). A height limitation is not likely to impact this facility, because the Buraco TSF is not very high by international and Brazilian standards.
- Visual inspection by RPM during the site visit indicates that the downstream slope of the dam and the intermediate berms appear in good condition and does not show indications of cracks, settlement, or seeps. Visual observation indicates that the concrete spillway appears in good condition.
- No indication of stability issues were reported or observed, however it is recommended: (i) maintaining the current monitoring and inspection program and implementing a very strict independent third-party review of those programs (currently being completed by a third party) and (ii) performing a detailed review of the analyses and designs of the planned raises from current El. 855 m up to the LOM El. 890 m.
- It is recommended performing additional testing of the clay used for dam construction to determine its dispersivity potential. If the clay is found to be dispersive, the monitoring and inspection program should be made more stringent, increasing the number of monitoring points and the frequency of inspections.

Figure 10-8 Buraco TSF Cross-Section



11. Phosphate Fertilizer Plants

The Project comprises two separate Phosphate Fertilizers Plants, one located 7km from the Ouvidor site near the town of Catalão while another is located 750km by rail near the coastal town and port of Cubatão. During 2015, all the Catalão plants had a good on-stream factor whereas most of the Cubatão plants, as might be expected for plants of their age, required more maintenance and incurred more downtime.

Following production from the Phosphate concentrators, the concentrates are transported via a dedicated pipeline to a filtration plant located near the town on Catalão. Concentrate from the slurry pipeline passes through the filtration plant and is separated into fine and coarse concentrate. 45% of the coarse concentrate (37% P_2O_5) is consumed at the Catalão site and the remainder is dried and sent by rail to Cubatão. All of the fine concentrate (34% P_2O_5) is consumed at Catalão for Low Analysis fertilizer production.

Both Fertilizer Plants comprise a number of models, each of which produce or is part of the production of the various products. The production of the various products changes dependent on the demand. As such not all modules are operating at any given point in time. Below is a description of both Fertilizer Plants.

Both sites have adopted a daily management control protocol (GRD), which has shown to be effective in improving plant productions rates and quality control. This program is more advanced than that in phosphate plants in major production centers including Morocco, Jordan, and Saudi Arabia

11.1 Catalão Fertilizer Plant

The Catalão Plant was built in 2002 and consists of a number of modules as outlined in ***Table 11-1*** with a simplified flowsheet as shown in ***Figure 11-1***. The plant has 558 employees, 424 of whom are in operations, while an additional 416 contractors are utilised. As part of the production various different chemical are required, which are sourced from:

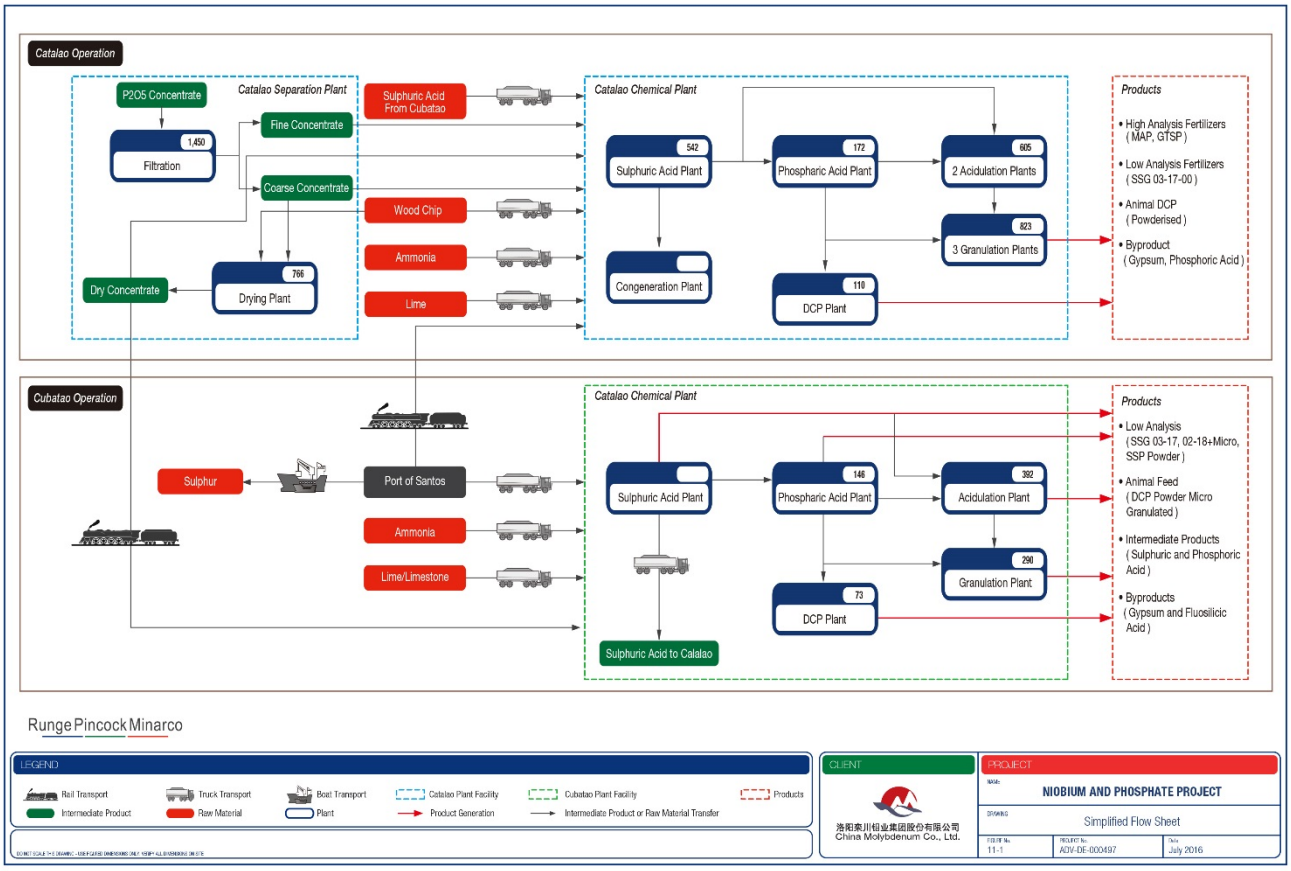
- Phosphate concentrate received as slurry from the Ouvidor Concentrators;
- Sulfur received by ship to Santos and by train to Catalão ;
- Sulfuric acid from Cubatão by truck;
- Ammonia is received from Petrobras by truck, and
- Lime is received by from a local supplier truck.

Table 11-1 Catalão Fertilizer Plant Units

Plant	Capacity	Type
Filtering plant	4,000 t/d / 1,406 ktpa	Classification with cyclones, filtering, thickening
Drying plant	2,400 t/d / 768 ktpa	Flash dryer
Sulfuric acid plant	1,645 t/d / 542 ktpa	Double-contact Double-Absorption
Turbine Generator	10MW	
Phosphoric acid	480 t/d at 51% P_2O_5 or 510 t/d at 46% P_2O_5	Dihydrate process
Acidulation (2)	1,900 t/d / 608 ktpa SSP and TSP	
Granulation (3)	2,500 t/d / 823 ktpa 0-21-0, 3-17-00, GTSP, MAP	Granulator, dryer, classification, cooling
DCP	305 t/d / 110 ktpa	Batch system

Source: Provided by the Company

Figure 11-1Simplified Flow Sheet (to be updated with changes)



11.1.1 Sulfuric Acid Plant

The sulfur acid plant (SAP) is a sulfur burning, Double-Absorption Double-Contact (DADC) plant that can produce 1,645 t/d sulfuric acid. The SAP plant produces steam which is used at the turbine generator to produce 10 MW of the 14 MW required by the plant. The balance of the required Sulfuric acid is supplied by truck from Cubatão.

The SO_2 concentration at the outlet of the sulfur burner is 11.5% and is not a restriction of achieving design capacity. Stack emissions are limited to 440 ppm SO_2 which is under the regulated limits and typical of world standards. Sulfur consumption, which includes sulfur handling losses were reported at 0.330 t/t sulfuric acid which indicates an overall site efficiency of 99%.

11.1.2 Catalão Phosphoric Acid Plant

The phosphoric acid plant (PA) uses the conventional Dihydrate process and can produce 480 t/d at 51% P_2O_5 (required for DCP) and 510 t/d when producing 46% P_2O_5 (for MAP). All of the Phosphoric Acid ("PA") is consumed at the DCP, TSP acidulation and MAP granulation plants. The plant features a 3-stage reaction system, a single UCEGO pan filter, dry gypsum discharge, two concentration units and clarifiers to remove sludge.

The PA is limited by evaporation capacity which can limit the production of DCP, which required 51% P_2O_5 phosphoric acid. RPM understand plans have been made to address this limitation during 2016. In addition a new scrubber is planned that will more than achieve future emissions standards.

Dry gypsum disposal from, the PAP is used which makes gypsum sales possible. There are also sales of fluorosilicic acid, a byproduct of concentrating phosphoric acid.

11.1.3 Catalão Acidulation Plants

There are two acidulation plants at Catalão (lines 69 and 80) that can produce nominally 2,000 t/d. One plant normally produces TSP powder (0-46-0) and other SSP (0-21-0) powder. The primary feeds to the TSP acidulation plant are phosphoric acid (from the PAP) and coarse concentrate (37% P_2O_5). The coarse concentrate feed for TSP is ground prior to the reaction step, while the primary feeds to the SSP acidulation plant are sulfuric acid and fine concentrate.

Both plants use a mixer to combine the raw materials and a Kuhlman conveyor/reactor to produce the powder product. Both plants use a multi-stage scrubbing system to capture fluorine fumes from the reaction step. This type of equipment is commonly used in this service.

11.1.4 Catalão Granulation Plants

There are three granulation plants at Catalão (lines 67, 68 and 80) that can produce 2,500 t/d, shown in ***Table 11-2***. The on-stream factors are within normal ranges for these types of granulation operations with several product grades.

Table 11-2 Granulation Plants at Catalão

Line	Products
67	MAP (11-52-0), GTSP (0-46-0), GSSP (0-21-0 and 3-17-0)
68	GTSP, GSSP (0-21-0 and 3-17-0)
70	GTSP and GSSP

Source: Provided by the Company

The limiting capacity of the Catalão granulation plants (for GSSP production) is drying. MAP is only made in Line 67 where a pipe reactor is used to mix phosphoric acid, ammonia and recycled scrubber liquor. The reacted mixture is then sprayed into a rotary drum granulator. Following granulation, the material is dried, screened, cooled and coated with an anti-dusting reagent before being conveyed to storage. Oversize material is milled and recycled to the granulator along with fines. The ventilation system includes cyclones, dust collectors and scrubbers to recover dust and fumes. This equipment is typical for producing MAP.

GTSP and GSSP can be made in all three lines by the steam granulation process where a pipe reactor is not required. In this process, SSP or TSP powder is added to the rotary drum granulator along with steam and recycled scrubber liquor. Under these conditions the SSP or TSP powder is converted to granules and dried, screened, cooled and coated, similar to MAP.03-17 can be made in lines 67 and 68 by the steam granulation process with one additional step. In this step, a small amount of ammonia is added to granulation mixture using a sparger pipe located under the rolling bed.

11.1.5 DCP Plant

The Catalão DCP plant uses hydrated lime and 51% P_2O_5 concentrated phosphoric acid to produce approximately DCP powder sold in 25 kg or 1 tonne sacks. The DCP system consists of pug mill batch reactors, a rotary drum dryer, a rotary drum cooler, a screen, a crusher and product storage and packaging. The DCP product is high-analysis product with 19.5% P with 19 to 20% being typical).

11.2 Cubatao Plant

The Cubatão Plant was built mostly in 1975 and similar to Catalão consists of a number of modules as outlined in ***Table 11-3*** with a simplified flowsheet as shown in ***Figure 11-1***. The plant has 347 employees, 247 in the processing area plus 263 non-mining contractors. As part of the production various different chemical are required, which are sourced from:

- Dried rock concentrate by train from Catalão,
- Sulfur received by ship to Santos and by truck to Cubatão,
- Ammonia for 3-17-0 and 2-18-0 is received by truck, and
- Limestone for DCP is by truck from local supplier.

Table 11-3 Chemical Processing Unites at Cubatão

Plant	Capacity	Type
DPG Sulfuric acid plant	1500 t/d	Double-contact Double-Absorption
Bayer SAP	500 t/d 656 ktpa	
Turbine Generator	None	
Phosphoric acid	450 t/d / 146 ktpa	Dihydrate process
Acidulation (1)	1350 t/d /392 ktpa	SSP and TSP
Granulation (1)	1000 t/d / 290 ktpa 2-18-0 (+ micros), 3-17-0, GTSP	Granulator, dryer, classification, cooling
DCP	230 t/d / 73 ktpa	Continuous system

Source: Provided by the Company

11.2.1 Sulfuric Acid Plants

The two sulfuric acid plants (DPG and BCP) are sulfur burning, Double-Absorption Double-Contact plants that produce nominally 1500 and 500 t/d sulfuric acid respectively. The DPG was built in 1974 while the BCP was built in 1980. The majority of the SA is consumed at the phosphoric acid and SSP acidulation plants with some sulfuric acid shipped to Catalão and the remainder sold.

Combined steam production is 96 t/h at 350 to 400 PSI with the majority of the steam being used at the phosphoric acid plant concentration units with some being vented. There is no turbine generator.

Stack emissions are limited to 600 ppm SO2 which is under the regulated limits and typical of world standards. Sulfur consumption, which includes sulfur handling losses were reported at 0.330 t/t SA which is indicates an overall site efficiency of 99%.

11.2.2 Phosphoric Acid Plant

The phosphoric acid plant (PAP) was built in 1974 and is similar in size as in Catalão, producing nominally 450 t/d of phosphoric acid from rock concentrate and sulfuric acid by the dihydrate process. Some of the acid is consumed at the DCP plant and some is sold. The plant features a 4-stage reaction system, a single UCEGO pan filter, dry gypsum discharge, four evaporators that concentrate the acid to 54% P_2O_5 and clarifiers to remove sludge.

As with Catalão the high grade of rock concentrate feed (37% P_2O_5) and high P_2O_5 recovery (95.5%) results in low rock concentrate consumption (3.04 t / t P_2O_5) and low sulfuric acid requirement (2.73 t / t P_2O_5). The PAP is limited by reactor cooling as well as concentration capacity. Plans for new cooling towers and the replacement of the heater exchanger for concentration have been made to address these limitations**.**

Dry gypsum disposal is used which makes gypsum sales possible. There are also sales of fluorosilicic acid, a byproduct of concentrating phosphoric acid.

The plant had an on-stream factor of only 77% (281 days) in 2015 however RPM considers that 86% should be achievable. Much of the downtime was due to the SA plant downtime and a reported "equipment recovery program". Improvement has been reported since that work was completed. The plant has turnarounds scheduled every 18 months which is considered good.

11.2.3 Acidulation Plant

There is one acidulation plant at Cubatão which produces nominally 392 ktpa of SSP powder. The primary feeds to the SSP acidulation plant are sulfuric acid and coarse rock concentrate (37% P_2O_5). The coarse concentrate feed is ground to 90% < 325 mesh prior to the reaction step. This very fine grind results in a higher conversion than obtained at Catalão.

The plant uses a mixer to combine the raw materials and a Kuhlman conveyor/reactor to produce the powder product. A multi-stage scrubbing system to capture fluorine fumes from the reaction step which is a continuous process. The SSP powder requires 7 days of curing before it is sold directly or fed to the granulation plant.

11.2.4 Granulation Plant

There is one granulation plant at Cubatão, built in 1975, that can produce nominally 40 t/h. The products that can be made are as follows:

- GSSP (0-21-0) – the largest tonnage of the 3 products
- GSSP with ammonia or SGAM (03-17-0)
- GSSP with ammonia (02-18-0) plus micronutrients (zinc or boron)

All three products are made by the steam granulation process where SSP powder is added to the rotary drum granulator along with steam and recycled scrubber liquor. Under these conditions the SSP powder is converted to granules and dried, screened, cooled and coated. This equipment is typical for producing these products by the steam granulation process.

The product specifications (0-21-0, 03-17-0 and 02-18-0) can be achieved at Cubatão due to the use of high grade rock and sufficient grinding for conversion.

11.2.5 DCP Plant

The Cubatão DCP plant uses limestone and concentrated phosphoric acid to produce approximately 10 t/h of mini-granular DCP which is sold in small or large sacks. The plant consists of a single, horizontal high shear mixer/granulator, a rotary drum dryer, a rotary drum cooler, a screen, a crusher and product packaging and storage.

The product specification is high at 20% P with 18 to 20% being the normal range to the market.

12. Infrastructure

Supporting regional and local infrastructure for the Project is well established and has ample capacity for the continued support of the planned LOM operation. The Project is located about 15 km northeast of the small cities of Catalão and Ouvidor, and the major city of Uberlândia which is 115 km south of Catalão. These cities provide suitable accommodation and supporting industries for the operations. Below is a description of the major infrastructure requirements of the Project. RPM considers the infrastructure appropriate and in good condition with the only area of concern being the long-term supply of fresh water. Alternatives for assuring long-term water supply are currently in progress.

12.1 Transportation Facilities

Good-quality paved highways connect the cities in the region as well as the provide access to further regional provinces and markets for the Phosphate products and ports for transportation of the Niobium Product. Good quality on-site gravel roads allow access throughout the Project area while a 7 km slurry pipeline has been constructed which transports phosphate concentrate from site to railhead near Catalão and the Catalão Fertilizer Plant. A public railroad allows access to the heavily industrialized southeastern area of Brazil, to the major seaport of Santos, to Cubatão Fertilizer Plant and markets for sale.

12.2 Buildings and Yards

The operations are equipped with the usual compliment of facilities including parking areas, gate-houses, offices, warehouses, storage yards, workshops, scrap yards, laboratories, change rooms, lunch rooms, emergency-service facilities (medical clinics and fire-fighting), food-service facilities, etc. required to serve the mines and plants.

12.3 Water Supply

Makeup water requirements for the niobium operations are about 600 cu. m/hr while 900 cu. m/hr are required for the phosphate operations. The required water is supplied from various sources including:

- Local wells, currently about 750 cu. m/hour, supply all the water to Niobium Plants, and a portion of the Phosphate Plant operations requirement.
- Chapadão phosphate open-pit mine sump, the output of which varies from 200 cu. m/hour in the dry season up to 1,000 cu. m/hour in the wet season. The sump supply water is used only for the Phosphate Plant operations.
- Buraco phosphate tailings dam, averages 360 cu. m/hour; however, it was only 160 cu. m/hour in 2014. Buraco supplies water only to the Phosphate Plant operations.

The Catalão operations area is subject to strong seasonal and erratic rainfall, accordingly, the amount of water available from the wells and the surface runoff into the mine sump and tailings dam falls off substantially in the dry season (as noted in ***Section 2***). Water storage is currently available in the Buraco and in the Macaúbas tailings dam. RPM notes that while the Macaúbas dam is currently used for water storage only, the Company plans are to eventually use it for niobium tailings in future operations.

12.4 Power Supply

Power for the operations is provided by the local grid, which is primarily fed by Brazilian hydro-electric plants, and also by cogeneration from the sulfuric acid plant. Power consumption for the niobium operations is about 90,000 MWh/year with an average demand of about 11 MW and constitutes about 8% of the operating costs.

Power consumption for the phosphate operations, including the Catalão fertilizer operations, is about 220,000 MWh/year with an average demand of about 26 MW. About 10 MW of the phosphate operations power is supplied by cogeneration from the Catalão sulfuric-acid plant; the remainder is provided externally.

12.5 Contracted Services

The operations include the usual contracted services including all mining operations. These include security, communication systems (telephone, Internet, radio), employee transportation, food service, accounts auditing, and trash collection.

12.6 Internal Services

Internal services provided by the operations include medical, fire-protection, purchasing, accounting, human-relations, community-relations, environmental-safety-health (ESH), legal, and marketing.

12.7 Personnel

The management organization is conventional and considerable effort appears to be devoted to planning, to resolving foreseeable problems ahead of time, and taking advantage of opportunities.

Total number of employees and contractors for all of the operations is about 4,800, including about 300 corporate personnel. For the phosphate operations the total number of employees is about 1,100 and the contracted personnel number about 1,800. For the niobium operations the total number of employees is about 600 and the contracted personnel number about 1,000.

13. Maintainence, Asset Management and Project Management

Due to the long history of the operations, several of the major infrastructure items including the plants and concentrators (with obvious exception of the BVFR which was recently constructed) require an increased maintenance. As such the Company has developed and it continuing to improve the plant maintenance system and ongoing to ensure availability of the equipment. Below is outline of the key aspects of the management systems in place across the operations.

The Company has divided the maintenance, asset management and project management functions for both the Phosphate and Niobium operations into the following departments:

- Maintenance
- Asset Management
- Engineering & Project Management
- Major Projects

13.1 Maintenance

The Maintenance function covers the planning and execution of all maintenance activities and funding comes from the opex budget rather than CAPEX. The maintenance manager is responsible for all the trades, planners and schedulers (via a frontline leadership team) and the maintenance manager reports to the site operational leader.

13.2 Asset Management

The Asset Management (AM) function covers the maintenance governance, reliability, technical improvements and performance verification function. The AM manager is responsible for all the engineers, technicians and technical personnel (via a frontline leadership team) and the AM manager reports to the site operational leader.

The AM function is mainly focused on the phosphate operations (due to the equipment age) however this function also provides limited support to the Niobium operations.

13.3 Engineering & Project Management

The Engineering & Project Management covers the planning and execution of small to medium projects and funding comes from the sustaining capital plan (Stay-in-Business (SIB), Business Improvement (BI) and Safety, Health, Environment and Community (SHEC)). The engineering manager is responsible for all the project managers, project engineers, construction supervisor and SIB contractors via a frontline leadership team. The Engineering manager reports to the site operational leader. The Engineering & Project Management function is mainly focused on the Phosphate operations and this function is covered by the maintenance manager in the Niobium operations.

13.4 Major Projects

The Major Project Team covers the planning and execution of all the major projects and funding comes from the major project budgets. The manager is responsible for all the project managers, project engineers, construction supervisor and contractors. The manager of this group reports to the CEO and covers both the Phosphate and Niobium operations. The Company is planning to combine the Major Project Team with the Engineering & Project Management Teams to form one Team that will be responsible for sustaining capital and major capital projects.

13.5 Summary of Findings

13.5.1 Plant Availability

Over the past 18 months, the Company have moved from a corrective (breakdown) maintenance strategy towards a more preventative maintenance strategy. The outcomes from these revised strategies are that the net availability of the Phosphate Plants (fertilizer plants) at Catalão and Cubatão has improved however there are still significant gaps in the performance of these assets (see details in ***Table 13-1***) which are planned to be addressed in the coming years. The net availability of the Niobium plants are variable from very good to well below industry average (see details in ***Table 13-1***).

RPM notes that the BVFR Crushing and Scalping plant along with the BVFR Plant are in the commissioning phase.

Table 13-1 Net Availability of Plants (Niobium and Phosphate)

Plant	Actual Net Availability	Recommended Net Availability
BVFR Crushing Plant	77%	90%
Niobium Tailing Concentrator	96%	97%
Niobium Concentrator Plant (BVFR Plant)	99%	95%
Niobium Concentrator Plant (BV Oxide Plant)	94%	97%
Niobium Metallurgical Plant at Catalão	80%	90%
Fertilizer Plant at Catalão	86%	95%
Fertilizer Plant at Cubatão	83%	95%
Phosphate Concentrator	89%	95%

Source: Provided by the Company

Maintenance Cost

The annual maintenance budgets in 2015 and 2016 for the Phosphate and Niobium operations have increased mainly to address the significant gaps in asset performance and Plant availability. ***Table 13-2*** shows the average maintenance spend (actual and planned) for 2016 to 2020.

Table 13-2 Average Maintenance Opex (2016 to 2020)

Operations	Budget
Niobium Operations (New BVFR Plant, Old BV Oxide Plant, Metallurgical Plant and BVFR Crushing Plant)	USD 7.5 M
Fertilizer Plant at Catalão plus Ouvidor Processing Plant	USD 12.4 M
Fertilizer Plant at Cubatão	USD 8.8 M

Source: Provided by the Company

Although these budgets have increased from the historical levels, RPM considers that there these will likely increase over the coming years to achieve the required level to ensure long term or LOM asset integrity and availability. .

13.5.2 Organization

The routine based maintenance and the breakdown maintenance are performed by the Company employees. The quality of maintenance execution has been a significant issue across all the operations and especially within the Phosphate operations. The Company has made a number of leadership changes over the previous 18 months, and at the Cubatão Plant they have changed 80% of the leadership employees within the maintenance department to address these issues.

There are very strong reliance on contractors for the planning and execution of large maintenance jobs and the ownership from the Company employees towards these major jobs will require improvement. This increased ownership will be required to ensure that the Company employees develop the skills and expertise to plan and execute these large maintenance jobs. RPM notes that this issue was recognized onsite and is being address as part of the standard operating procedures at all levels of the maintenance department.

13.5.3 Technical

The establishment of the AM Team has resulted in the development and execution maintenance strategies and programs. While there has been improvements, there is still significant room to increase the performance and systematic approaches to maintenance, these include:

- There are no plans to develop and implement comprehensive condition monitoring strategies and programs for most equipment (especially critical equipment).
- There are no plans to move towards predictive maintenance strategies.
- There are no plans to develop and implement hydrocarbon management programs.
- The Company does not operate computerized maintenance management system (CMMS). Currently they are using spreadsheets and emails to manage planned and unplanned maintenance work. A significant investment will be required to implement a CMMS, especially in terms of the skills and expertise of the Company employees.
- It appears that the AM Team has not completed a risk assessment to define the risks and controls surrounding the implementation of the CMMS project. There is also a high level of dependence on external knowledge and expertise for the implementation and management of the new CMMS.

Comments

The review includes a number of key comments which included:

- The Company recognizes that maintenance of the infrastructure, particularly the operating phosphate plant is critical to the continued success has implemented and made a number of changes in the recent past to address key concerns.
- There has been some improvement in the availability of the plants, however all the phosphate plants are operating below optimal levels.
- A number of improvements can be made to the maintenance

14. Capital and Operating Costs

The Capital and Operating costs outlined below reflect the Ore Reserve Consolidated Production Schedule which is summarized in ***Section 9***. As such the forecast costs assume all Inferred Resources are waste and costed accordingly.

14.1 Captial Costs

14.1.1 Capital Expenditure

As the Project is an operating asset limited capital development expenditure is required and the forecast CAPEX is for changes to existing infrastructure to support the planned change in ore feeds for the BV Plant. The Total Capital Expenditure for the remainder of the Reserve Mine Life is forecast to be MUSD 14.92 as shown ***Table 14-1***.

Closure plans have been compiled for each of the operating areas and are included in the LOM annualized capital in ***Table 14-2.*** RPM highlights that it is estimates upon closure of the Cubatão Fertilizer plant, with land sales and metal scraping a positive closure of MUSD 22.1 is forecast to be achieved.

RPM consider the forecast reasonable however notes that the totals outlined in ***Table 14-1*** are nominal. .

Table 14-1LOM CAPEX Cost Estimate

Cost Centre	Unit	LOM
Upgrade Boa Vista Conc.	MUSD	14.92

Source:CAPEX Costs Provided by the Company and utilised by RPM in the Ore Reserve Schedule.

14.1.2 Sustaining Capital

A total of 1.86 Billion USD sustaining capital is required of the remainder of the mine life as outlined in ***Table 14-2***. As outlined in ***Section 13***, the operations required continued and sustained maintenance to ensure the continued good performance and recoveries achieved in the Concentrators and plants. As such this forms a large portion of the sustaining capital with 331 MUSD forecast for the Niobium plants, and a combined 1.4 Billion USD for the Phosphate plants between Catalão and Cubatão, RPM notes this includes the costs of the tails dams, equipment replacement and maintenance. RPM consider the forecast reasonable to support the Ore Reserve mine life. RPM notes the below includes closure costs which are noted in ***Section 15*** for each operation.

Table 14-2 LOM Sustaining Capital Cost Estimate (Average Per Year)

Operation	Unit	LOM	Average Per year				
			2015-2020	2021-2025	2026-2035	2036-2045	2045-2053
Niobium (Total)	**MUSD**	**477.3**	25.6	15.7	16.5	13.3*	
Phosphate (Total)	**MUSD**	**1,383.5**	33.0	45.8	35.1	34.1	42.5#
Total	**MUSD**	**1,860.9**	**58.6**	**61.5**	**51.6**	**47.4**	**42.5**

**Niobium Mining forecast to cease in 2041 based on RPM'swith closure costs Ore Reserves with closure costs only in 2042 and 2043*

#Phosphate Mining forecast to scease in 2052 based on RPM's Ore Reserves in 2053

Source:Costs Provided by the Company however were adjusted to reflect RPM independent Ore Reserve schedule and Mine Life..

14.2 Operating Costs

Estimated LOM yearly average operating costs for the Project are summarized in ***Table 14-3***. RPM notes that a gypsum by product is produced which is included as a positive in the annual costs and not included in the mine operating unit LOM costs presented below. RPM notes that the unit costs presented in ***Table 14-3,*** while sourced from information provided by the Company, were adjusted where considered appropriate to reflect RPM's independent review and Ore Reserve schedule presented in this Report.

Table 14-3 Ore Reserve LOM Annual Operating Costs

Operation	Unit	LOM (Total)	Average Per year				
			2016-2020	2021-2025	2026-2035	2036-2045	2045-2052
Niobium Total	**MUSD**	2,401.9	133.2	149.9	76.5	37.0*	
Ouvidor Total^	**MUSD**	2,255.4	49.2	64.5	69.5	99.2	43.4#
Gypsum Revenue	**MUSD**	-78.9	-7.8	-1.6	-1.6	-2.7	-1.2#
Other Costs	**MUSD**	61.8	3.4	1.3	1.4	1.5	1.0#

**Niobium Mining forecast to cease in 2041 based on RPM'swith closure costs Ore Reserves with closure costs only in 2042 and 2043*

#Phosphate Mining forecast to scease in 2052 based on RPM's Ore Reserves in 2053

^Phosphate costs include all costs to produce a dry product ready for shipment to the Fertilizer plants.
Gypsum is a credt as such it is presented as a negative cost.
Source: Unit Costs were provided by the Company however were adjusted to reflect RPM independent Ore Reserve schedule. Annualized costs vary to the Company's due to unit costs changes and production schedule variations.

14.2.1 LOM Mining Costs

All mining operations and transportation on site is conducted by a contractor with unit rates and average LOM cost per ore tonne. The LOM unit costs vary depending on the waste strip requirements. It is important to note, that Mina I and Mina II are dependent of completion of removal of the phosphate Ore overlying, otherwise increased costs would be incurred.

14.2.2 Chemical Plant

Following production of the concentrates for Niobium and Phosphate, further processing produces the products for sale to the market. ***Table 14-4*** outlines the cost of sale for each product sold at Catalao and Cubatao. These costs include tranposrt from concentrators to respective plant, direct and indirect fixed costs aswell as variable costs and cost wihtin the plant (they do not include the costs of the concentrate production). RPM also highlights that these costs include all the G & A costs for the phopshate mining operations.

Table 14-4 2016 Operating Costs for Catalão and Cubatão Fertilizer Plants by Type

Fertilizer Type	2016 Cost Costs (USD/t product)
Catalão	
High Analysis*	162.4
Low Analysis	132.3
Cubatão	
Low Analysis	123.4
High Analysis*	387.1
*Phosphoric**	488.9
*Sulphuric**	74.4

**Includes DCP Product, it is noted that DCP is not regarded as a high analysis product however has been included in this aggregate form*
Source: Unit Costs Provided by the Company and utilised by RPM in the Ore Reserve Schedule.

15. Overview of Permitting, Environmental Impact, and Social & Community Impact

15.1 Management

In general, the Company's Phosphate and Niobium operations can be considered well managed from an Environmental and Social (E&S) view point. All sites incorporate corporate procedures and standards, legal requirements, and international certifications, such as ISO 9001: 2008 for Quality Management System, ISO 14001: 2004 for Environmental Management System, and Occupational Health & Safety Advisory Services (OHSAS) 18001: 2007 for Occupational Safety and Health Management System. To manage applicable permits, the Company implemented the Escritório de Licença para Operar ("ELO System" or license to operate office), which contains information on the existing permits, the technical requirements associated with each permit, and licensing risks.

15.2 Phosphates Catalão and Ouvidor

15.2.1 Environmental Permitting

According to the ELO System, the Catalão and Ouvidor operations have 132 permits, including 30 environmental licenses (preliminary, installation and operation licenses) and 60 environmental authorizations (water abstraction, vegetation suppression, etc.) that have been granted for the mining and ore processing operations (Ouvidor Municipality), fertilizer production (Terminal in Catalão municipality), tailings dam and water intake from the tailings dam of Vale. The Company is in general compliance with the established technical requirements, however there are some material non-compliances, as described below. The Company has several permits still pending, however these, as noted below, do not restrict current production or planned production in the near term. These environmental licenses and authorizations include:

- It is important to observe that, the Company requested another LP for the Tailings Dam A4, which was cancelled on March 2016, when SECIMA (State of Goiás Environmental Agency) was informed that the Company was evaluating other alternatives to the proposed tailings dam. RPM highlights that the proposed construction of the A4 Tailings Dam does not form part of the LOM plan or business plans and as such the issue of these permits is considered a moot point for the purposes of the LOM forecast production and TSF strategy.
- Permits for 3 new water supply wells and water pipeline as part of the Company's LOM water strategy has been requested and the timeframe to be issued is according to the legal time from the Environmental Agency of Goias. The Company expect to have the first well operating by September 2017, the second well operating by 2021 and the Sump by 2022.

15.2.2 Regulatory Compliance

The Company is in general compliance with established technical requirements, however there are some material non-compliances related to EHS standards and regulations on air and dust emissions, groundwater quality, and worker's occupational health and safety, as presented below. RPM highlights that none of the non-compliances identified in the course of this ITR are considered material for the continuity of the business negotiations and should not compromise the future operations of the assets under evaluation.

15.2.3 Fines and Consent Orders

The Municipality of Catalão Environmental Agency (SEMMAC) fined the Company USD2.6 million for atmospheric pollution resulting from fluoride emissions. In July 2015, a related civil action was brought against Anglo American, Vale Fertilizantes S.A. (Vale) and SECIMA. In November 2015, a court imposed an injunction pursuant to which the Company and Vale are required to keep fluoride emissions under 42 µg/L (which, according to the court, is the level adequate for the population living in neighboring areas). RPM is aware this injunction is currently suspended by the court of appeals pending further technical reviews.

The Public Ministry Office of the State of Goiás (PMO-GO) has also brought a claim against the Company and the State of Goiás in relation to the licensing of the Buraco Dam by SECIMA. The Buraco Dam was licensed and approved under the law that was in place at the time the dam was designed and built. However, the law

has since changed, imposing new statutory licensing requirements that the PMO-GO has sought to apply retroactively, even though they came into effect only after the dam was already built and in operation.

The claim is for: (i) approximately USD1.35 M to be used for two environmental funds; (ii) the issuance of a corrective environmental license for the Company's waste rock pile and tailings pond, requiring the adoption by the Company of appropriate mitigation and compensation measures in relation to environmental damage caused since the start of operations in Catalão; and (iii) the provision of two conservation areas with a minimum size of 40 hectares. The Company submitted a statement of defense on 7 May 2015, but no final decision had been made at the time of this Report was prepared.

15.2.4 Water Supply and Use

The Company's Phosphate Catalão and Ouvidor operations are currently in material compliance with applicable permit requirements regarding the abstraction and use of water.

The Company during several reviews during 2014 and 2015 identified the availability of water supply for ongoing operations as a risk. This was risk is associated the ongoing drought that the region was experiencing and uncertainty over the availability of new sources of water. To address potential future water availability, the Company has developed a Water Strategy and is considering four alternative long-term strategies to enable it to obtain sufficient water for LOM requirements. These include dewatering of Mina 1 through the drilling of an additional well and resizing the pumping system is the preferred alternative, as a result a pilot deep well is in progress to confirm the quantity of water available and to calibrate the hydrogeological model. These wells has not been completed at the time of this Report. As a short-term measure to increase the access to water in times of low supply, the Company entered into a one-year arrangement in early September 2015 with Vale to pump water from Vale's mine sump using diesel power generators. RPM considers these short and long term approaches suitable mitigants however recommends additional sources be defined to 'safeguard' and unforeseen circumstances.

RPM is aware that the Company has received several complaints from the local community alleging that the abstraction of water by the Company from local rivers and artesian wells caused a reduction in the water flow of Creek Fazenda Lagoa. The Company informed that it has been working with the PMO-GO, who is investigating the issue. In responding to these complaints, the Company identified the water abstraction taken from the deep well is in a deep confined aquifer, which was unlikely to affect the groundwater resources contributing to base flow in local water bodies and other shallow groundwater sources used by the local community.

15.2.5 Radiation Protection

The Company produces phosphogypsum as a by-product of phosphoric acid production, which can contain variable concentrations of radium-226 and radium-228. The material is stockpile in a dedicated area on site prior to further testing (as required) prior to delivery to market. The phosphogypsum is sold for agricultural use to adjust soil characteristics. Under the requirements of the National Commission for Nuclear Energy (CNEN), "the removal of piles for distribution or sale of phosphogypsum is authorized under certain conditions, including that the average concentration of 226Ra and 228Ra of the phosphogypsum shall not exceed 1 Bq/g per each of these radionuclides" and annual sampling and analysis is required, with notification to CNEN one month in advance of the monitoring.

With the support of the Energy and Nuclear Research Institute (IPEN), the Company conducted sampling and analysis of the phosphogypsum pile at 30 locations to evaluate the radioactivity concentration against the CNEN Resolution number 179 (2014) limit for agricultural use. The IPEN analysis showed average rates of 0.91 Bq/g for 226Ra and 0.31 Bq/g for 228Ra, within the limits set by CNEN of 1 Bq/g for each of these radionuclides. Thus, according to the levels of radioactive of the phosphogypsum, the material could be sold for agricultural use and does not need to be accumulated at the site if there is a demand for this product.

15.2.6 Mine Closure Plan

The Company maintains an internal closure plan developed in accordance with the parent Anglo American mine closure guidelines, Brazilian environment regulations where applicable, and commitments arising from environmental and sectorial permits. The current Closure Plan (2015) is based on the 2014 LOM plan and while preliminary information has been included it has not yet been fully updated to reflect the current LOM presented

in this Report, however no material changes are expected. The current LOM assumes that mining and processing activities will continue until 2052 with a total direct closure cost of USD 64.4. Additional closure costs and revenues, such as land sale and HR redundancy provision, can elevate the total closure cost up to USD97.1million, as detailed in ***Table 15-1***.

Table 15-1 Closure Costs – Phosphates Catalão and Ouvidor

Item	Costs (USDM)
Total Direct Closure Costs	64.4
HR redundancy provision	52.9
Land Sale	-5.8
Scrap metal sales	-2.2
Gypsum sales - Catalão	-8.3
Total closure costs (2015 real terms: uninflated, undiscounted)	97.1

Source: ERM – Closure Plan, 2015.

The total closure costs, based on ERM's Closure Plan, were considered in the revised financial model and are considered suitable and reasonable. RPM notes these costs will vary due to those used in Chapter 15, due to slight exchange rate variations to convert to USD.

15.3 Phosphate Cubatão

15.3.1 Environmental Permitting

The Company Cubatão operations have 58 public permits, with 258 associated technical requirements. According to information provided by the Company and site observations by RPM, the Cubatão site is in general compliance with the established technical requirements. There are currently no requirements which have been marked as "to be complied with" in the ELO System, except for the minor items detailed below.

15.3.2 Regulatory Compliance

The Company's Cubatão operations are currently non-compliant with some EHS standards and regulations regarding effluent quality, groundwater quality, and worker's occupational health and safety.

Process effluents at the Company's Cubatão Site, with high fluoride content, are chemically treated with lime to remove fluorides and phosphates. The treated effluent is directed to a retention pond (Lagoa Sul) and is partially reused as process water and the excess is discharged to the Piaçaguera River. The latest wastewater monitoring reports indicate that treated effluent is not currently compliant with the State law requirements. This State law (which is also incorporated into the requirements of the consent order described below) establishes that the effluent cannot cause toxic effects to the aquatic organisms in the receiving water body ('Ecotoxicity'), and sets conditions for its assessment. More details are presented in Section 15.3.3.

The Company is required under a TAC (terms of adjustment of conduct – consent order) to take certain actions to address groundwater impacts and must submit annual groundwater quality monitoring reports to CETESB (the State of São Paulo Environmental Agency). The reports indicate that there are groundwater plumes of fluorides and sulfates related to the gypsum piles that also extend to the process areas. There is also a phosphate plume limited to the gypsum piles location.

According to the reports, the contamination plumes have not significantly varied over the last five years. Additional monitoring wells are being installed to better understand the groundwater behavior down-gradient of effluent and percolate ponds. The actions required by the TAC to contain the groundwater plumes on the site and prevent ongoing impacts are in the process of being implemented. More details are presented in ***Section 15.3.3***, below.

The Company has prepared and submitted to the Ministry of Labor and Employment an action plan with a schedule for implementation of required improvements by 2020. As reported by the Company, to comply with the NRs, structural integrity upgrades, and scheduled maintenance, the Company will invest approximately USD9 million at the Cubatão Plant which is included in the CAPEX forecasts.

15.3.3 Fines and Consent Orders

On September 2010, the Company signed a TAC with CETESB, which addressed the environmental impacts of the Cubatão site and defined a cleanup plan and compensation measures to be implemented. The TAC requires a series of corrective actions to be taken by the Company to eliminate existing contamination and a daily fine of USD55,000 may be applied in case of a breach of agreement.

The Company is currently implementing the corrective actions required by the TAC. Some of these have already been completed, while others are ongoing.

15.3.4 Mine Closure Plan

The Company Cubatão maintains an internal closure plan developed in accordance with Anglo American mine closure guidelines, Brazilian environment regulations, where applicable, and commitments arising from environmental and sectorial permits. The current Closure Plan (2015) is based on the 2014 LOM plan and while preliminary information has been included it has not yet been fully updated to reflect the current LOM presented in this Report. The 2015 LOM assumes that mining and processing activities will continue until 2052. Anglo considers a total direct closure cost of USD 28.6 million. Considering additional closure costs and revenues, such as land sale and HR redundancy provision, the Company estimates a positive balance of USD 22.9 million due to land sale, as detailed in ***Table 15-2***. RPM notes these costs will vary due to those used in ***Chapter 15***, due to slight exchange rate variations to convert to USD and are considered reasonable.

Table 15-2 Closure Costs – Cubatão

Item	Costs (USDM)
Total Direct Closure Costs	64.4
HR redundancy provision	52.9
Land Sale	-5.8
Scrap metal sales	-2.2
Total closure costs (2015 real terms: uninflated, undiscounted)	97.1

Source: ERM – Closure Plan, 2015.

The total closure costs, based on ERM's Closure Plan, were considered in the revised financial model.

15.4 Niobium

15.4.1 Environmental Permitting

The Company's Niobium operations have 199 public permits, including 42 environmental licenses (preliminary, installation and operation licenses) and 101 environmental authorizations (water abstraction, vegetation suppression, etc.) with 921 technical requirements encompassing the mining and ore processing operations and tailings dams. The company is in general compliance with the established technical requirements, however there are some material non-compliances, as described below. In the short term, the Company will need environmental licenses and authorizations for the following:

- Installation License (LI) for Mina II (requested and expected for 2017);
- LI to adapt the phosphate tailings dam (Macaúbas) for niobium Tailing utilization (Not yet requested. LI expected to be issued in second quarter of 2017);

15.4.2 Regulatory Compliance

The Company is currently non-compliant with some EHS standards and regulations on dust and noise emissions, groundwater quality, and worker's occupational health and safety, however these are typically non-material and the Company is in general compliance.

Dust emissions have generated complaints from neighbors of the Boa Vista site. Following such complaints, a civil investigation was commenced by the Public Ministry office of Goiás State and the Company was fined by SEMMAC due to dust and noise emissions. More details about this specific issue are presented in ***Section 15.4.3***.

These were raised with high-density polyethylene lining after compaction and soil preparation. To date, there are no groundwater quality data to assess potential environmental impact from tailings deposited in the older areas of the TSF.

As reported by the Company, to comply with the regulations, structural integrity upgrades, and scheduled maintenance, the Company will invest approximately USD16.3 million at the Niobium operations which is included in the forecast CAPEX.

15.4.3 Fines and Consent Orders

As reported above, SEMMAC fined the Company USD 2.1 million due to dust and noise emissions from the Niobium Operations and a civil investigation was commenced by the PMO-GO. The Company has appealed the injunction and requested the suspension of the fines until the court has reviewed the issues in more details. Subsequently the court has granted an injunction suspending all fines pending a final decision.

15.4.4 Water Supply and Use

Water sources for the Company's Niobium operations include surface water intake and deep water wells. The Company holds the water abstraction authorizations granted by SECIMA, which establishes the maximum abstraction flow rates and number of water pumping hours per day.

In July 2014, SECIMA the Company revised and updated the water abstractions permits of the wells identified as PA-18, 23, 24, 36, 31 and 33 and increased number of daily hours that these wells could be pumped. As reported, Anglo American Niobium has not yet applied for the water abstraction permit review for the wells PA-27, 28 and 29.

The Company has also received several complaints from the local community claiming that the abstraction of water by Phosphates and Niobium from local rivers and artesian wells caused a reduction in the water flow of the Creek Fazenda Lagoa. As notes previously, the Company has been working with the PMO-GO, who is investigating the issue. The Company responded to these complaints by demonstrating that the water abstraction is from wells installed in a deep confined aquifer, which is unlikely to affect the shallow groundwater resources that contribute to base flows in local surface water bodies and other shallow groundwater sources used by the local community.

It is also important to note that the Company niobium operations have suffered with similar droughts that have also affected the Catalão and Ouvidor region, and is also facing uncertainties regarding the availability of new sources of water. In this respect, the Company's Water Strategy described above also applies to the Niobium operations.

15.4.5 Radiation Protection

NORM (Naturally-Occurring Radioactive Material) is present in the niobium ore. In October 2011, CNEN performed a site assessment in order to check compliance with the Standard NN-4.01 (Requirements for Radiologic Safety and Protection in Mining-Industry Installations), requiring the Company to develop a radio protection plan, comprising of: i) risk assessment; ii) control management; iii) training, awareness and communication; and iv) surveillance and monitoring. The Plan was informally presented to CNEN prior to the final version submitted in February 2014, but the Company has not received the final approval from CNEN.

The existing risk prevention programs (PGR and PCMSO) implemented by the Company considered the OHS risks associated with radiation sources (evaluated since 2015). For BVFR and tailings this risk has not yet been considered and should be evaluated in the next update of the radio protection plan.

According to the information provided by the Company, the exposure dose values ranged from 0.10 to 4.58 mSv / year with a mean of 1.92 mSv / year which RPM notes are below 30 per cent of the annual dose limit established by CNEN.

Slag generated by the metallurgy operation is currently stored in a fenced area with restricted access due to its ionizing radiation levels. The current slag deposit is on a property owned by the Company, however is located over a phosphate ore deposit that is planned to be mined by the Company in 2020. Therefore, the slag deposit will have to be relocated at a cost of USD3.23 million and the Company will have to identify a new area for the Slag Deposit.

15.4.6 Mine Closure Plan

The Company Niobium maintains an internal closure plan developed in conformance with Anglo American mine closure guidelines, Brazilian environment regulations, where applicable, and commitments arising from environmental and sectorial permits. The current Closure Plan (2015) is based on the 2014 LOM plan and while preliminary information has been included it was not yet fully updated to reflect the current LOM and are considered reasonable. The 2015 LOM assumes that mining and processing activities will continue until 2041. Anglo has considered a total direct closure cost of USD 50.4 million. Considering additional closure costs and revenues, such as land sale and HR redundancy provision, the Company estimates a total cost of USD 67.5 million, as detailed in ***Table 15-3***. RPM notes these costs will vary due to those used in Chapter 15, due to slight exchange rate variations to convert to USD.

Table 15-3 Closure Costs – Niobium Catalão and Ouvidor

Item	Costs (USDM)
Total Direct Closure Costs	50.4
HR redundancy provision	21.5
Land Sale	-0.7
Scrap metal sales	-1.0
Total closure costs (2015 real terms: uninflated, undiscounted)	67.5

Source: ERM – Closure Plan, 2015.

The total closure costs, based on ERM's Closure Plan, were considered in the revised financial model.

16. Mine Risks and Opportunity Assessment

16.1 Opportunity

RPM considers there are several opportunites within the Project. These include:

- **Inferred material:** Within the current final pit designs a total of 76.5 Mt for the phosphate and 4.3 Mt for the niobium of "inferred" Mineral Resources have been reported. These Mineral Resource have not been included in the Ore Reserves estimate as per the requirement of the JORC Code and the current Ore Reserve schedule, as presented in this Report, attributes a waste mining cost to this material with no revenue from the contained metal. RPM considers there is high likelihood that geological confidence can be increased through additional exploration or production drilling which will result in large portions of this material being upgraded to Indicated and included as part of future Ore Reserve estimates.
- **Chapadão Pit Expansion:** While the Ore Reserves reported by RPM are based on the final pit design provided by the Company, RPM also undertook a series of pit optimization within the Chapadão pit to determine the potential upside based on the revised classification applied by RPM. This optimization indicates there is a potential for an additional **17.6 Mt** within an expanded pit of Measured and Indicated material. RPM notes that for this material to be included in an Ore Reserve estimate, a final pit design should be undertaken followed by scheduling. RPM considers this a priority as it could directly expand the mine life by up to 4 years.

16.2 Risk

Mining is a relatively high risk business when compared to other industrial and commercial operations. Each mine has unique characteristics and responses during mining and processing, which can never be wholly predicted. RPM's review of the Mines indicates mine risk profiles typical of large scale mines at similar levels of resource, mine planning and development in Brazil. Until further studies provide greater certainty, RPM notes that it has identified risks and opportunities with the Project as outlined in ***Table 16-2***.

RPM has attempted to classify risks associated with the Mine based on Guidance Note 7 issued by The Stock Exchange of Hong Kong Limited. Risks are ranked as **High**, **Medium** or **Low**, and are determined by assessing the perceived consequence of a risk and its likelihood of occurring using the following definitions:

Consequence of risk:

- **Major**: the factor poses an immediate danger of a failure, which if uncorrected, will have a material effect (>15% to 20%) on the Mine cash flow and performance and could potentially lead to Mine failure;
- **Moderate**: the factor, if uncorrected, could have a significant effect (10% to 15% or 20%) on the Mine cash flow and performance unless mitigated by some corrective action, and
- **Minor**: the factor, if uncorrected, will have little or no effect (<10%) on Mine cash flow and performance.

Likelihood of risk occurring within a 7 year timeframe:

- **Likely**: will probably occur;
- **Possible**: may occur, and
- **Unlikely**: unlikely to occur.

The consequence of a risk and its likelihood of occurring are then combined into an overall risk assessment as shown in ***Table 16-1*** to determine the overall risk rank.

Table 16-1 Risk Assessment Ranking

Likelihood	Consequence		
	Minor	Moderate	Major
Likely	Medium	High	High
Possible	Low	Medium	High
Unlikely	Low	Low	Medium

RPM notes that in most instances it is likely that through enacting controls identified through detailed review of the Mine's operation, existing documentation and additional technical studies, many of the normally encountered Mine risks may be mitigated.

Risk Ranking	Risk Description and Suggested Further Review	Potential Mitigant	Area of Impact
M	**Plant Maintenance** Cubatão plants are 30 years old and this is reflected in higher on-stream factors and the requirement for more detailed and systematic planning system. This present a risk for increased OPEX and unavailability	The Company is implementing several new system to increase efficiencies to maintain and decrease the backlog. More training and a pre-emptive approach	OPEX
M	**Niobium Commodity Price Fluctuation** The market for ferroniobium is comprised of 3 Company of which the company is the number 2 supplier. There is a significant over capacity of supply from these companies and any new sources may impact price	The company has a dedicated marketing and trading department in place.	Project Economics
L	**Buraco TSF - Clay** The clay used for the containment dam should be checked for dispersity, which increases the unknown in relation to stability of the Containment dam although no evidence of issues have been noted in the 30 year operation of the dam.	Regular and increase inspections, along with documentation	CAPEX and Life of Project
L	**Buraco TSF - Design** The current LOM plan design include the use of upstream method. The downstream and centreline methods should be investigated	Alternative design to be completed and costs along with permitting application submitted.	CAPEX
L	**Water Supply and Permitting** Surface water supply have been restricted by several years of droughts. Alternative and permanent water supply needed to confirm water supplies.	Alternatives have been sources, however permits have not been granted. Upon completion of studies (underway) submit permit application.	OPEX
L	**EHHS Fines** The company has been fined due to noise (Niobium) and air emissions (all sites) exceedances and is facing civil actions.	Ensure compliance with regulation, and increase water suppression units.	CAPEX
L	**Data Quality** Limited QAQC data or sampling and assay protocols or data is available for the drill hole information prior to 2009. However a significant resampling program has been undertaken.	Complete twin holes in areas with only historical data	Resource estimate
L	**Phosphate Commodity Price Fluctuations** As noted in the valuation report the NPV sensitivity analysis suggests the Project is not highly sensitive to changing commodity	Offtake agreements or long terms sales contracts.	Project Economics

Risk Ranking	Risk Description and Suggested Further Review	Potential Mitigant	Area of Impact
	rather changing costs and discount rates likely due to high CAPEX required.		
L	**Boa Vista Waste Dump** The BV waste dump are permitted until 2021, however no permits have been granted to this date. Additionally no detailed designs have been completed.	Completed designs and review to confirm viable locations and begin discussions with land owners and permitting application	Ore Production
L	**Bulk Density** Some bias may have occurred within the for several deposits Of particular note is the areas outside the mining areas within Chapadão which have limited data, these areas applied an average, which would likely impact the local variation.	Complete a reconciliation of the BD completed against the mined areas to determine the variation on a local scale.	Local Variation of Resource estimate

Appendix A - Experience and Qualifications

Jeremy Clark – Manager, Hong Kong, Bsc. with Honours in Applied Geology, Grad Cert Geostatistics, MAIG, MAusimm

Jeremy has over 15 years of experience working in the mining industry. During this time he has been responsible for the planning, implementation and supervision of various exploration programs, open pit and underground production duties, detailed structural and geological mapping and logging and has a wide range of experience in resource estimation techniques. Jeremy's wide range of experience within various mining operations in Australia and recent experience working in South and North America gives him an excellent practical and theoretical basis for resource estimation of various metalliferous deposits including Iron Ore and extensive experience in reporting resource under the recommendations of the JORC and NI-43-101 reporting codes.

With relevant experience in a wide range of commodity and deposit types, Jeremy meets the requirements for Qualified Person for 43-101 reporting, and Competent Person ("CP") for JORC reporting for most metalliferous Mineral Resources. Jeremy is a member of the Australian Institute of Geoscientists

Tim J. Swendseid, Chartered Financial Analyst, CFA Institute, Charlottesville, Virginia, USA, 2010. MBA, Eller Graduate School of Management, University of Arizona, Tucson, Arizona, USA, 2006, B.S. Mining Engineering, Montana School of Mineral Science and Technology, Butte, Montana, USA, 1984. President, Consulting Services - Americas. Member, CFA Institute and Colorado CFA Society, Professional Engineer License: Arizona and Idaho, USA, Registered Member of Society of Mining, Metallurgy, and Exploration Organization (SME), Member, Instituto de Ingenieros de Minas de Chile

Mr. Swendseid has over 30 years of operational and engineering experience including senior leadership positions at operating properties in the USA, Chile and Mexico. He has been involved with numerous operation & construction audits, numerous investigations and implementations of internal growth projects and numerous acquisition evaluations of individual properties and of entire companies. His experience includes open pit and narrow vein underground operations. He has a solid grasp of the technical, operational and financial aspects of mining for all sizes of projects. Mr. Swendseid is fluent in Spanish.

Philippe Baudry – General Manager – China and Mongolia, Bsc. Mineral Exploration and Mining Geology, Assoc Dip Geo science, Grad Cert Geostatistics, MAIG

Philippe is a geologist with over 15 years of experience. He has worked as a consultant geologist for over 6 years first with Resource Evaluations and subsequently with Runge after they acquired the ResEval group in 2008. During this time Philippe has worked extensively in Russia assisting with the development of two large scale copper porphyry Mines from exploration to feasibility level, as well as carrying out due diligence studies on metalliferous Mines throughout Russia. His work in Australia has included resource estimates for BHPB, St Barbara Mines and many other clients both in Australia and overseas on most styles of mineralisation and metals. Philippe furthered his modelling and geostatistic skills in 2008 by completing a Post Graduate Certificate in Geostatistics at Edith Cowan University. Philippe relocated to China in 2008 and has since managed numerous Due Diligences and Independent Technical Reviews for private acquisitions and IPO listings purpose mostly in China and Mongolia.

Prior to working as a consultant Philippe spent 7 years working in the Western Australian Goldfields in various positions from mine geologist in a large scale open cut gold mine through to Senior Underground Geologist. Before this time Philippe worked as a contractor on early stage gold and metal exploration mines in central and northern Australia.

With relevant experience in a wide range of commodity and deposit types, Philippe meets the requirements for Qualified Person for 43-101 reporting, and Competent Person ("CP") for JORC reporting for most metalliferous Mineral Resources. Philippe is a member of the Australian Institute of Geoscientists

Richard Addison, P.E., Principal Process Engineer. M.S. Metallurgical Engineering, Colorado School of Mines, 1968, A.C.S.M. (Honors), Camborne School of Mines, 1964. Registered Member of Mining, Metallurgy and Exploration (SME), Registered Engineer, Nevada, Chartered Engineer, U.K, Eur. Ing., EEC.

Mr. Addison has over 45 years of diversified experience in the mineral processing and extractive metallurgy field. He is a well-known authority in the field of mineral processing with particular emphasis on complex ores and base and precious metals, having worked on numerous projects throughout his career. He has evaluated the processing facilities and operations of many domestic and foreign metals operations involving both oxide and complex refractory type ores. Copper experience includes the appraisal of existing and proposed facilities, production, and costs of the Ilo smelter for Southern Peru Copper Company; the Ellatzite Copper Mine Feasibility Study, Bulgaria; the Alumbrera Copper/Gold Mine Competent Persons Report, Argentina; Batu Hijau Copper Mine Completion Test, Indonesia; the Independent Engineers assignment on the Candaleria Project in Chile and the Los Pelambres Copper Mine Completion Test, Chile. Mr. Addison is fluent in Spanish.

Terry H. Brown, Ph.D., Principal Environmental Specialist. Ph.D. Soil and Environmental Chemistry, University of Idaho, 1986, M.S. Soil Chemistry/Morphology, Washington State University, 1977, B.S. Forest Management, Washington State University, 1974. Member of American Chemical Society, RCPAC Certified Professional Soil Scientist # 1742 American Society for Surface Mining and Reclamation, Soil Science Society of America (American Society of Agronomy)

Over 35 years of U.S. and International experience serving in environmental management positions with two coal mining companies, a U.S. federal coal mining/environmental regulatory agency, an international research institute and with an International environmental consulting company. Specializing in soil and water management activities including: Water Management - potential for development of acid rock drainage in mineral and coal mines, metals dissolution, tailings storage, waste rock management, water treatment, erosion and sedimentation control, and water and soil chemistry; Soil Management - soil chemistry, soil morphology/mapping, soil fertility and soil microbiology/bioremediation;. Significant experience in environmental impact analysis, development of impact mitigation measures, permitting of mine construction and operations, reclamation/mine closure planning, pit lake development, environmental monitoring, soil mapping, evaluation of compliance with environmental standards, liability determinations, and environmental cost accounting.

Esteban Acuña, Senior Geologist. Geology, Universidad De Concepcion - Concepcion, Chile. Registered Member of the Chilean Mining Commission.

Mr. Acuña has 17 years experience in geostatistics, geological modeling and 3D modeling. His experience includes sampling control, QAQC, design and control of exploration drilling activities, drilling and surface mappings, ore control, ore feeding control to plant, and mine-plant grade reconciliations. Prior to joining PAH, Mr. Acuña worked as Resource Geologist with Antofagasta Minerals S.A. and Minera el Tesoro Company. He is proficient in the use of Vulcan, Medsystem, Minesight, Pcxplor, Geomodel, Dips, Surface, and Gslib.

Pedro Repetto, P.E., Principal Civil Engineer, M. S.Civil Engineering, Purdue University, 1970, B. S. Civil Engineering, Catholic University of Peru, 1965. Engineering Registration (P.E. is in Colorado and several other states plus in Peru)

Mr. Repetto has over 40 years of experience in civil, geotechnical, earthquake engineering, mining, solid waste, and environmental remediation projects. Experience comprises over 500 projects which include all phases of project development, implementation, and closure. Qualifications in the mining industry include over one hundred projects for the mining industry and over one hundred civil and geotechnical projects. He has managed projects at several Freeport McMoRan properties, including Safford, Morenci, Chino, Cobre, Tyrone, Henderson, Cerro Verde, El Abra, Candelaria, and Ojos del Salado and was recently project manager for the design and construction monitoring of the Coermotibo (Suriname) tailings ponds for BHP Billiton. Experience as an independent consultant include tailing dams, leach pads, shallow and deep foundations, slope stability, retaining walls, solid waste management, closure and reclamation of mining facilities, and environmental remediation projects.

Rondinelli Sousa, Senior Mining Engineer. M.Sc., Mineral Engineering, University of Sao Paulo, Brazil –2006., B.Sc., Mineral Engineering, Federal University of Campina Grande, Brazil – 2002. Registered Member of Mining, Metallurgy and Exploration (SME)

Mr. Sousa has a strong background in technology customization. His experience includes mine planning technology implementation projects, orebody modeling, grade estimation, and applied geostatistics. Prior to joining RPM, Mr. Sousa was a Mining Consultant with The Datamine Group where he provided technical consulting and support services for mining companies in the USA and Latin and South America. He is fluent in English, Portuguese and Spanish.

Company's Relevant Experience

RungePincockMinarco (RPM) is the market leader in the innovation of advisory and technology solutions that optimize the economic value of mining assets and operations. RPM has serviced the industry with a full suite of advisory services for over 45 years and is the largest publicly traded independent group of mining technical experts in the world.

RPM has completed over 11,000 studies across all major commodities and mining methods, having worked in over 118 countries globally.

RPM has operations in all of the world's key mining locations enabling them to provide experts who understand the local language, culture and terrain. RPM's global team of technical specialists are located in 18 offices around the world. Through their global network, RPM can provide you access to the right specialist technical skills for your project.

RPM's advisory division operates as independent technical consultants providing services across the entire mining life cycle including exploration and project feasibility, resource and reserve evaluation, mining engineering and mine valuation services to both the mining and financial services industries.

RPM's trusted advisors typically complete assignments across all commodities in the disciplines of:

- Geology;
- Mining Engineering;
- Minerals Processing;
- Coal Handling and Preparation;
- Infrastructure and Transportation;
- Environmental Management;
- Contracts Management;
- Mine Management;
- Finance and Project Funding;
- Commercial Negotiations.

RPM was founded in Australia and as a result, has a solid understanding of and is committed to compliance with the codes which regulate Australian corporations and consultants.

Over the past 45 years, RPM has grown into an international business which has continued to provide clients and those that rely on its work the confidence that can be associated by the use of the relevant global industry codes some of which include:

- The Australasian Institute of Mining and Metallurgy Code of Ethics;
- The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves;
- The Australian Institute of Geoscientists Code of Ethics and Practices;
- Society for Mining, Metallurgy and Exploration Code of Ethics; and
- The National Instrument 43-101 Standards of Disclosure for Mineral Projects.

RPM has conducted numerous independent mining technical due diligence studies and reporting for IPO's and capital raisings under the requirements of all key mining equity markets over the past six years, with involvement in capital raisings worth more than US$44 billion. Some of this and other work is summarised in ***Table A1***.

RPM leverages the power of its specialist knowledge to also provide cutting edge mining software that is sought after globally for mine scheduling, equipment simulation and financial analysis. RPM software is relied on by mining professionals to understand how to structure their long and short term operations efficiently using auditable best practice methodologies and solutions.

Table A1 - Mining Related IPO and Capital Raising Due Diligence Experience

2016 CGN Mining Company Limited; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKEx Circular to support the a Major Transaction for the acquisition of a 19.9% equity stake in Fission Uranium Corps Pattersons Lake Uranium Project, Canada.

2015 BHP Limited Demerger into South 32; independent technical review and compilation of a Competent Persons Report as defined by the European Securities and Markets Authority's Recommendations on consistent implementation of Commision Regulations ("EC") No 809/2004 implementing the Prospective Directive (the "ESMA Recommendations"). The ITR was completed on the assets of Illawara Coal Holdings located in the New South Wales state of Australia.

2014 MMG Limited; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKEx Circular to support the acquisition of the Las Bambas Copper and Gold Mine, Peru.

2014 Hidili International Development Company., Ltd; Competent Persons Report of Coal Resources and Coal Reserves under JORC and Independent Technical Review for inclusion in a HKSE Circular to support the divestment of Multiple Coal Mines, Yunnan Province, China.

2013 China Molybdenum Company., Ltd; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKSE Circular to support the acquisition of the Northparkes Copper and Gold Mine, Central West NSW, Australia.

2012 China Gold Resources International., Ltd; Tibet Jiama Copper-Polymetallic Phase II NI 43-101 HKEx Pre-Feasibility Study. China

2012 China Precious Metal Resources Holdings Co., Ltd Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKSE Circular to support the acquisition of an Gold Operation Yunnan Province, China.

2012 Kinetic Mines and Energy., Ltd; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKSE Circular to support the IPO of an underground coal asset in Inner Mongolia Province, China.

2012 China Daye Non-Ferrous Metals Mining., Ltd; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKSE Circular to support the acquisition of 4 operating underground copper, lead, zinc assets in Hubei Province, China.

2012 Huili Resources Group ., Ltd; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKSE Circular to support the IPO of multiple underground nickel, lead, zinc, copper and gold mining assets in Xinjiang and Hami Province, China.

2011 China Polymetallic Limited Mining., Ltd; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKSE Circular to support the IPO of a lead zinc silver polymetallic underground mining assets in Yunnan Province, China.

2011 China Precious Metal Resources Holdings Co., Ltd; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKSE Circular to support the acquisition of multiple underground gold mining assets in Henan Province, China.

2011 HaoTian Resources Group Limited; Competent Persons Report of Mineral Resources and Reserves under JORC and Independent Technical Review for inclusion in a HKEx Circular to support acquisition of and underground coal mines in Xinjiang Autonomous Region, China.

2011 King Stone Energy Group., Ltd; Competent Persons Report of Mineral Resources and Reserves under JORC and Independent Technical Review for inclusion in a HKEx Circular to support acquisition of 2 underground coal mines in Shanxi Province, China.

2010 China Precious Metals Holdings Co., Ltd; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKEx Circular to support the acquisition of multiple underground gold mining assets in Henan Province, China.

2010 Century Sunshine Group Holdings Limited; Competent Persons Report of Mineral Resources and Ore Reserves under JORC and Independent Technical Review for inclusion in a HKEx Circular to support the acquisition of a serpentinite mining asset in Jiangsu Province, China.

2010 Doxen Energy Group Limited; Independent Technical Review and estimation of Mineral Resources under JORC for inclusion in a HKEx Circular to support the acquisition of a coal mining asset in Xinjiang Autonomous Region, China.

2010 KwongHing International Holdings (Bermuda) Limited; Independent Technical Review for inclusion in a HKEx Circular to support a Very Substantial Acquisition.

2009 Metallurgical Corporation Of China Ltd ("MCC"); Independent Technical Review for inclusion in a Prospectus to support a stock exchange listing on the Hong Kong Stock Exchange.

2009 Nubrands Group Holdings Limited, Guyi Coal Mine; Independent Technical Review for inclusion in a Stock Exchange Circular to support a mining asset purchase by a listed Hong Kong Company.

2008 China Blue Chemical Limited, Wangji and Dayukou Phosphate Mines: Independent Technical Review for inclusion in a Stock Exchange Circular to support a mining asset purchase by a listed Hong Kong Company.

2008 Kenfair International (Holdings) Limited, Shengping Coal Mine: Independent Technical Review for inclusion in a Stock Exchange Circular to support a mining asset purchase by a listed Hong Kong Company.

2007 China Railway Company Limited, African Copper/Cobalt Assets: Capital raising for mining assets on the Hong Kong Stock Exchange. Preparation of Competent Persons Report for planned IPO on the HKEx.

2007 China Railway Company Limited, African Copper/Cobalt Assets: Capital raising for mining assets on the Hong Kong Stock Exchange. Preparation of Competent Persons Report for planned IPO on the HKEx.

2007 Gloucester Coal Limited – Independent Technical Review for Australian Stock Exchange Scheme of Arrangement.

Appendix B – Glossary of Terms

Abbreviation	Unit or Term
A	Ampere
the Company	Anglo American
ARD	acid rock drainage
BFA	bench face angle
C1	Net Direct Cash Cost
CAPEX	Capital expenses
CETESB	State of São Paulo Environmental Agency
CFM	cubic feet per minute
CNEN	National Commission for Nuclear Energy
CoG	cutoff grade
CONAMA	National Environmental Council
COO	Chief Operating Officer
CST	Cleaner scavenger tailings
CU	consolidated-undrained
DADC	Double Absorption Double Contact
DCP	Dicalcium Phosphate
DD	Diamond Drill holes
DGAAM	Directorate of Energy and Mines – Environmental Affairs
DTM	average haulage distance
EAP	emergency action plan
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
ELO	License to Operate Office
EMP	Environmental Management Plan
EMS	Environmental Management System
EP	Equator Principles
EPC	Engineering, Procurement, Construction
EPCM	Engineering, Procurement, Construction Management
ESAP	Environmental and Social Action Plan
F&A	Finance and Administration
FGA	Food Grade Acid
FoS	Factor of safety
FS	Feasibility Study
g	grams
g/t	grams per tone
GCL	geosynthetic clay liner
Geoengenharia	Geoengenharia Consultoria e Servicios Ltda.
Geoestavel	Geoestavel Consultoria e Projetos
GRD	The Daily Management Control Protocol used at the plants
GSLib	Geostatistical Software Library
GSSP	Granular Single Super Phosphate
GTSP	Garnular Triple Super Phosphate
H:V	Horizontal:Vertical
HDPE	high-density polyethylene
hp	horsepower
H2SO4	Sulphuric acid
Hz	hertz
IPEN	Energy and Nuclear Research Institute
ISO	International Organization for Standardization
JORC	Joint Ore Reserves Committee
k. lbs	thousands of pounds
km	kilometer
km2	square kilometers

k. oz	thousands of troy ounces
kt	kilo tonnes
Kt	thousands of tonnes
ktpa	kilo tones per year
kV	kilovolt
kW	kilowatt
kWh	kilowatt hour
l	liter
l/s	liters per second
LAN	Local Area Network (computer communications system)
lb	pound
lbs	pounds
LI	Construction license (Licenca de Instalacao)
LL	liquid limit
LO	Operation license (Licenca de Operacao)
LOM	Life of Mine
LP	Preliminary Permit
m	meter
m3	cubic meter
masl	meters above sea level
M	Million
MAP	Mono-ammonium phosphate
MGA	Merchant Grade Acid
MINAM	Ministry of Environment
M&I	Measured and Indicated (with respect to Resources)
Mm3	million cubic meters
Mo	molybdenum
Mt	million tonnes
MW	megawatt
MWh	megawatt-hour
Nb2O5	Niobium Oxide, Niobium pentoxide.
NP products	Fertilizer products containing nitrogen and phosphorous
NPV	net present value
NR	Ministry of Labor regulatory standard
OK	Ordinary Kriging
OHSAS	Occupational Health & Safety Advisory Services
OPEX	Operational expenses
oz	Troy ounces
P2O5	Phosphorus content expressed as phosphorus pentoxide
PA	Phosphoric Acid
PAG	Potentially acid generating
PC	Principal Contractor
Pb	lead
PCB	Poly-chlorinated biphenyls
PE	Professional Engineer
PG	Professional Geologist
PGR	Risk Management Program
Pimenta de Avila	Pimenta de Avila Consultoria Ltda.
PMCSO	Medical Surveillance and Occupational Health Program
PMO-GO	Goiás State Public Ministry Office
PPE	Personal Protective Equipment
ppm	parts per million
psig	pounds per square inch gauge
PPRA	Occupational Risk Prevention Program
QA/QC	quality-assurance/quality-control
RC	Reverse Circulation Drill Holes

Rec	recovery
ROI	return on investment (percentage, after tax)
RPM	RungePincockMinarco
S	sulfur
$	US dollars
SA	Sulphuric acid
SAP	Sulphuric acid plant
SAG	semi-autogenous grinding
SEAT	Socio-Economic Assessment Toolbox
SECIMA	State of Goiás Environmental Agency
SD	Standard deviation
SEIA	Social and Environmental Impact Assessment
SEIN	Sistema Eléctrico Interconectado Nacional (National Electric Interconnected System)
SEMARH	Secretaria de Estado do Medio Ambiente e dos Recursos Hidricos
SEMMAC	Environmental Agency of the Municipality of Catalão
SESMT	Specialized Occupational Health and Safety Service
SGAM	Granualated SSP with added ammonia
SIB	Stay in Business capital expenditure
SO2	Sulphur Dioxide
SSP	Single Super Phosphate
t	Metric tonne
TAC	Conduct Adjustment Agreement – Consent Order
tpd	Metric tonnes per day
TG	Turbine Generator
TSF	Tailings Storage Facility
TSP	Triple Super Phosphate
Vale	Vale Fertilizantes S. A
WAN	Wide Area Network (computer communication system)
Wi	Work index (grinding characteristic of rock)
WWTP	waste water treatment plant
XRF	X-ray fluorescence
Zn	zinc

Appendix C – JORC Code Disclosure Requirements

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• RPM reviewed the post 2009 sampling and sampling preparation protocols and procedures and considers that they were suitably executed to minimize the standard error. • The majority of the samples used for the resource estimation are derived from drilling from post 2008 or campaigns with re-assays and therefore RPM considers the data which supports the resource estimation to have no material sample bias and is representative of the samples taken. • RPM notes that subsequent to cutting of core and placing of half core into sample bags all sample preparation and assay determinations works have been conducted by the internal Laboratory in Catalão facilities.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Diamond drill-holes ("DDH") with drill core diameters of PQ (8.5 cm Ø), HQ (6.3 cm Ø) or NQ (4.8 cm Ø) were the preferred drilling method to define mineralisation within the Project since 2003. • In Boa Vista, one extensive drilling campaign of 87,644 m (out of over 151,002 m of total drilling) used reverse-air-circulation drilling (RC).
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Typically core recoveries are higher in fresh rock, over 90% for all DDHs which RPM considers suitable; however, low recoveries were noted for the oxide zones. A further review by RPM indicates that the zones with low recovery are associated with intensely weathered intervals and are not considered material to the total Mineral Resource reported in this Report. • All drilling activities have been undertaken by contractors independent of the Client. Due to the style of drilling undertaken within the Project the Client's personnel have mostly undertaken core sample handling. • No relationship exists between sample recovery and grade for all drilling.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	• The Company has developed (in 2009) logging and sampling procedures that have been continuously improved and have been subjected to external auditing that confirmed the processes and protocols implemented giving the results a high level of confidence. • The geological staff demonstrated the logging

Criteria	JORC Code explanation	Commentary
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	process which matches with the resource database description. RPM recognizes the logs of these drill-holes are of a high quality.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• All cutting of core and placing of half core into sample bags and all sample preparation and assay determinations works have been conducted by the internal Laboratory in Catalão facilities. • The sample preparation methods are appropriate for the type of mineralisation. • The sample security measures undertaken include: The independent drilling crews are responsible for delivering the core to the core shed, the Company's personnel are responsible for cutting the core and placing the cut core in bags for delivery to the preparation laboratory facilities which is also managed by the Company's Geology Department. Together with the cores, the geology staff provide to the laboratory, a report with the amount and the numbers of samples and sample tickets to each core is provided. Meanwhile, all personnel are supervised by senior site geologists and geotechnicians. In addition, photos are taken of all core trays prior to sampling. Core is clearly labelled for sampling, a suitable paper trail of sampling can be produced and duplicate samples are taken to ensure no sample handling issues arise. • Sample size is considered appropriate for the assay works.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or tot*al. • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established*.	• The analytical protocol used for both Nb_2O_5 and P_2O_5 is described in Table 6-2, and the assaying technique is considered total. • • Since 2009 the Company has conducted a detailed QA/QC program to provide verification of the sample procedure, the sample preparation and the analytical precision and accuracy. A total of 32% of the total samples were control samples which include Blank, Duplicates, Standards samples. The QA/QC samples all showed suitable levels of precision and accuracy to ensure confidence in the sample preparation methods employed by the Company and primary laboratory.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Significant intersections were verified by core inspection by RPM staff during site visit, and checked in core logs and core photographs. • No twin holes were drilled. • Field data is collected on paper logging sheets. These are transferred to Excel spreadsheets. The data is validated by

Criteria	JORC Code explanation	Commentary
		company personnel. The Excel files were amalgamated into an Access database by RPM. • No adjustments have been made to assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Since 2009, the Company undertook a survey of the drill-hole collar locations using the Laser Scan differential GPS equipment using the method of taking static differential data. RPM considers these methods suitable. Collar survey of holes drilled before 2009 are not confirmed. • The coordinate system was UTM coordinates using the projections WGS 84, PSAD 69 Zone 23S • The topographic surface is defined by 2m contours which are sufficient for a Mineral Resource. RPM considers the topography suitable for use in a Mineral Resource estimate.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drill hole spacing is approximately 10 m by 10 m to 100 m by 100 m for Nb_2O_5 resource and 35m by 35m to 200m by 200m for P_2O_5 resources. • The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource classification applied. DH spacing, Scorecard or Kriging passes methods were applied for classification based on quantity and quality of exploration data. • Samples have been composited to 2.5 - 5 m lengths using fixed length techniques.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Historical drill holes were designed to intersect mineralisation perpendicular to strike and almost perpendicular to dip observed in outcrop.
Sample security	• *The measures taken to ensure sample security.*	• The independent drilling crews are responsible for delivering the core to the core shed, the Company's personnel are responsible for cutting the core and placing the cut core in bags for delivery to the preparation laboratory facilities which is also managed by the Company's Geology Department. All personnel are supervised by senior site geologists and geotechnicians. • Photos are taken of all core trays prior to sampling. Core is clearly labelled for sampling, a suitable paper trail of sampling can be produced and duplicate samples are taken to ensure no sample handling issues arise. Half core rejects, core rejects and pulps are appropriately stored inside the core shed and are available for further

Criteria	JORC Code explanation	Commentary
		checks.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The review undertaken by RPM of the sampling procedures indicates that generally, international standard practices were utilized with no material issues noted, with the exception of the potential bulk density risk.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• All key mining tenements are currently valid for the continued operation of the assets to support the planned production rates. All relevant mining and exploration licenses and authorizations held by the CMOC Mining Pty. Ltd are listed in Chapter 3, table 3-1. • The tenements are in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Project has a long history of systematic exploration which has included geological mapping, geophysical and geochemical surveys as well as a large amount of surface diamond and reverses circulation drilling. The exploration history by the current and previous owners commenced in the 1970's when CBMM detected niobium anomalies in Boa Vista, Morro do Padre and Mineração Farm. CBMM also drilled Catalão I with brushing system, but also diamond and reverse circulation drilling. In Catalão II complex, two zones were detected (Coqueiros and Boa Vista) by the aeromagnetic map surveyed by CPRM in 1976. Although, the first aeromagnetic exploration of Catalão I and II was made by DNPM in 1974. • In 1982, Mineração Catalão the Goias (MCGL) completed 4 drill holes intersecting several niobium occurrences (nelsonites) and also phosphate and copper mineralised zones in Catalão II. In Chapadão, MCGL completed 52 drill holes in between 1986 and 1986 and 70 drill holes in the period 1999-2000 in the zone called ultra-fertile, now known as Area Leste Mine. • Exploration was stopped until 2003, when Anglo American acquired the properties. Several aeromagnetic and field geophysical exploration campaigns were carried out by the Company from 2003 to 2008. Since 2003, the Company has drilled numerous drill holes to outline and define resources in the targets of Chapadão for phosphates and niobium, Boa Vista – Morro does Padre for niobium and Coqueiros for phosphate and niobium.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Mineralisation within the Project is associated with phoscorite-carbonatite complexes which are rare in the geological

Criteria	JORC Code explanation	Commentary
		record and form P, Nb, Cu, REE, Ba, Ti and other economic deposits. • The majority of carbonite deposits in region are localized within stable continental tectonic units, such as shields, cratons, and crystalline blocks, with well-developed old Earth crust. • The phoscorite-carbonatite complex Catalão I is an approximately 5 km diameter circular structure. Complex I host both Niobium and Phosphate economically significant mineralisation with exploration to date defining the Chapadão Phosphate deposit, Mina I, Mina II and the Area Leste Niobium deposits. • The Igneous complex evolution in Catalão II has been interpreted as a shallow ultra-potassic-affine magma chamber of multiphase evolution which evolved through complex combinations of fractional crystallization, liquid immiscibility, magmatic segregation and degassing/metasomatism, resulting in a wide diversity and intricate contact-related lithology and mineralisation style.

Drill hole information	• *A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:*
	  • *easting and northing of the drill hole collar*
	  • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  • *dip and azimuth of the hole*
	  • *down hole length and interception depth*
	  • *hole length*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• Exploration results are being reported. Total of 13,898 diamond holes data were used for estimation and reporting. The detailed information include all drill holes collar locations, down hole survey, samples depths, max length.
		• No holes were excluded from the estimates
		• Information and samples from DDHs have been used to underpin resources estimation (only HQ and NQ were used for estimation, PQ holes were only used for metallurgical testwork); RC drilling was only used for classification purposes and grade control of the Boa Vista Mine.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Samples were not weight averaged and high grade cuts were not necessary as there were no outliers to the grade populations in each domain. • No aggregate drill hole intercepts are being reported. • Metal equivalent values have not been used.
Relationship between mineralisation	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with*	• Only the down hole lengths are reported.

Criteria	JORC Code explanation	Commentary
widths and intercept lengths	*respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Exploration has delineated niobium mineralisation in the fresh rock below the oxide material at Mina II, Area Area Leste, Boa Vista Mine and at the Morro do Padre deposit. While this mineralisation requires further delineation to define mineral resources RPM considers these areas to have a high potential to host significant mineralisation, and as such RPM completed exploration potential target estimates • The plan view of designed drill hole collar location has been shown in Figure 7-3 and 7-4 for Boa Vista area and Chapadão and Coqueiros area.
Balanced Reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Exploration Results are not being reported. All relevant drill holes results have been estimated in the Mineral Resource. Average grades from the Mineral Resource were used to help determine grade of exploration targets.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Other exploration data has been reported as part of the Mineral Resource report apart from geophysical survey data.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The Competent Person recommends that further exploration should design extra holes to test the exploration potential of the Project. The program is focused on delineating the resource potential areas to a reasonable level of confidence (potential Inferred Resources), with additional drilling. The planned drilling is 65 holes for approximately 26,500 m drilled with a budget of the exploration work estimated by RPM to be approximately USD 4 M. All details are included in Chapter 7 section 5.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• The drilling data has been systematically audited by RPM. Original drilling records were compared to the equivalent records in the data base. No major errors were found. • RPM completed systematic data validation steps after compiling the database. Checks were completed by RPM to ensure the following: a. All values in numerical fields were the correct data type and within reasonable and expected ranges. b. Down-hole survey depths did not exceed the hole depth as reported in the collar table. c. Hole dips were within the range of 0° and -90°. d. Assay values or lithology records did not extend beyond the hole depth quoted in the collar table. e. Assay and survey information was checked for duplicate records. A visual check of the drill holes and assays was also completed using Vulcan software
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• RPM visited the Phosphate and Niobium mines and processing facilities between the dates of March 14th and 17th, 2016 to perform technical due diligence on the assets. RPM's site visit team consisted of: Tim Swendseid (President, Consulting Services – Americas), Esteban Acuña (Principal Geologist), Dick Addison (Principal Process Engineer), Marten Walters (Principal Chemical Engineer), João Abud (Environmental and Social Specialist), Pedro Repetto (Principal Civil Engineer).
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the geological interpretation is considered to be good and is based on visual confirmation in outcrop, intersections of mineralisation in drill holes and variography of grade continuity. • Geological logging has been used to assist identification of lithology and mineralisation. • Alternative interpretations may be possible but are considered unlikely. The effect of any alternative interpretations would be immaterial to the Mineral Resource estimate. • Surface mapping and host rocks confirm the geometry of the mineralisation. • The grade and continuity is affected by the presence of local faults or folds, the depth of fresh or oxide rock layers.

Criteria	JORC Code explanation	Commentary
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The deposits, which form part of the Mineral Resource estimates, are located approximately 260 km south of Brazilia and approximately 20 km ENE of Catalão. The Project consists of serval exploration and mining rights under the Brazilian mining code with six mining concessions and two exploration permits currently held by the Company. These six mining concessions are; 75. 178 (MCG-01, 87 (Area 5), 85 (FFG-01) 801244 / 1968 (MCG-0011), 803343 / 1983 (MCG-002), 804513 / 1968 (Area 5) and are shown graphically in Figure 3-1.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of*	• The Catalão I, the Mina I, Mina II and Area Leste deposits niobium estimates were undertaken using the ordinary kriging grade interpolation method ('OK") through a number of passes each with different search radius and parameters. First pass parameters were defined with a minimum of 5 composites and maximum and 25 composites inside a search ellipsoid with a radium of 30 x 30 x 30 m. • The Catalão II, Boa Vista oxide and Morro do Padre Nb2O5 estimates were undertaken using OK through a number of passes each with different search radius and parameters. For Morro do Padre, first pass parameters were defined with a minimum of 10 composites and maximum of 40 composites inside a search ellipsoid with a radius of 70 x 40 x 230 m. For Boa Vista oxide, first pass sample configuration was defined with a minimum of 3 composites and a maximum of 24 composites within an ellipsoid with a radius of 120 x 120 x 80 m. • The Boa Vista's fresh rock, estimates were undertaken using the non-linear method, Uniform Conditioning which predicts the grade distribution of a large block (panel) conditioned to the estimated mean grade of it. The parent block size was 30 x 30 x 20 m which was selected to enable a local conditionally unbiased mean, with a large search of 95 composites were used. With the unbiased mean and the block grade distribution, change of support using hermite polynomial coefficients were applied to obtain the grades in SMU block size by using a linear estimate of the SMU grades to predict the likely locations of the high, low grades and waste. This estimation method includes the internal dilution. • Chapadão phosphate estimates were undertaken using the OK through a number of passes each with different search radius and parameters. First pass parameters were defined with a minimum of 10 composites and maximum of 25 composites inside a search ellipsoid with a radius of 120 x 12 x 15 m. No dilution has been

Criteria	JORC Code explanation	Commentary
	selective mining units. • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	incorporated in the Chapadão resource block model. • No previous estimates were provided and compared with current estimation results. • No assumption of income from recovery of by-products has been made as there are no by-products. • Within each deposit, the spatial grade variability was modeled using variograms. Experimental semivariograms, correlograms and Gaussian variograms (for Boa Vista) were estimated using GSLIB and Isatis software based on the 2.5 – 5 m composites for oxide and fresh rock estimation domains and compounds P2O5, Nb2O5, CaO, Fe2O3, SiO2, and BaO and metallurgical variables. • The geologic interpretation models consist of a set of 3D solids one for each interpreted rock type. • The statistical review indicated that there were not outliers to the grade distributions, as a result no high grade cuts were applied. • Validation of the model included detailed comparison of composite grades and block grades by objects, by northing and easting and a section by section visual assessment of block grades and interpolation vs composite grades and interpretation of mineralisation. Validation plots showed good local correlation between the composite grades and the block model grades.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Various cut-off grade were applied for all rock type of all mines. (6%, 7%, and 5% for P_2O_5 of Chapadão Oxide OP, Coqueiros Oxide OP and Fresh Rock OP respectively; 0.5% for Nb_2O_5 of Mina I Oxide-OP, Mina II Fresh Rock OP, Boa Vista Oxide OP and Fresh Rock OP; 0.58% for Nb_2O_5 of Boa Vista Fresh Rock UG, Morro do Padre Fresh Rock UG; 0.67% for Nb_2O_5 of Mina II Fresh Rock UG, Area Leste. • RPM reviewed the preliminary financial model and considers input parameters and costs were reasonable and within the range of that which could be expected for this type of deposit and required mining and processing methods. RPM's analysis of the preliminary financial model and its experience of other similar projects were used to help determine the Mineral Resource reporting resource cut-off grade for each domain.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Both open cut and underground mining methods have been considered for reporting of resource. Boa Vista and Chapadão utilizes similar open cut mining methods due to the similar key characteristics of the mineralisation within the Project. • Material which is directly below the near surface mineralisation of the various deposit, considered small to medium term high recovery underground methods.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The Ore-Processing facilities comprise two phosphate concentrators and three niobium concentrators all located within the Catalão Complex I operations. The two phosphate concentrators combined have a throughput capacity of 5.8 mtpa (dry) and produce about 1.4 mtpa of concentrate at 37% P2O5. • Two of the niobium concentrators currently process ore from the Boa Vista mine, namely the Boa Vista Fresh Rock Concentrator ("BVFR") and the Boa Vista ("BV") concentrator, while the third processes tailings from the phosphate concentrators ("TA"). The BVFR and BV concentrators have a throughput rate of 2 mpta and produce approximately 11,000 tonnes of pure Nb2O5 per year in the form of concentrate at 55% Nb2O5. The TA concentrator has a throughput rate of 1.1 mtpa which typically has a grade of 0.7% Nb2O5 and produces about 2,300 tonnes of pure Nb2O5 per year in the form of concentrate grading about 44% Nb2O5.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• According to the ELO System, the Catalão and Ouvidor operations have 132 permits, including 30 environmental licenses (preliminary, installation and operation licenses) and 60 environmental authorizations (water abstraction, vegetation suppression, etc.) that have been granted for the mining and ore processing operations (Ouvidor Municipality), fertilizer production (Terminal in Catalão municipality), tailings dam and water intake from the tailings dam of Vale.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc),*	• Bulk densities were estimated using the ID2 method based on the data within the Boa Vista deposit while the densities for the Mina I and Area Leste deposits were assigned by material type. The densities for the Mina II and Chapadão deposits were estimated with OK.

Criteria	JORC Code explanation	Commentary
	moisture and differences between rock and alteration zones within the deposit. • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• To report the Mineral Resources and be co nsistent with the JORC requirement of 'Rea sonable Prospects for Eventual Economic E xtraction' RPM constrained the block estima tes by the topography and an economic pit which was estimated with Measured, Indica ted and Inferred resources and at a phosph ate and niobium prices of USD 320 per tonn e and USD 40.93 per pound respectively. Metallurgical recoveries and costs were set as per the Ore Reserve statements. • A scorecard system that weights the followi ng factors, drilling spacing, density measure ments, metallurgical sampling, slope regres sion, historical data and surveying along wit h kriging passes was utilised to classify res ources within Chapadão, Mina I and Mina II while the drill hole spacing was utilised for t he remainder of the deposits. • All relevant factors have been taken into ac count for classification. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Internal audits have been completed by RPM which verified the technical inputs, methodology, parameters and results of the estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The lode geometry and continuity has been adequately interpreted to reflect the applied level of Indicated and Inferred Mineral Resources. The data quality is good and the drill holes have detailed logs produced by qualified geologists. Recognised laboratories have been used for all analyses with analysis of assay QA/QC data determining no material issues. The application of geostatistical procedures was considered to quantify the relative accuracy in different parts of the resource, together with data quality and is represented by the classification applied. • The Mineral Resource statement relates to global estimates of tones and grade.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The independent Mineral Resources estimates completed by RPM have been utilised for the Ore Reserve estimate. • The JORC Measured and Indicated Mineral Resources quantities are inclusive and not additional to the Ore Reserves reported
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Mr. Tim J. Swendseid (On behalf of the CP)) visited the site from March 14th through March 17th, 2016. The outcome of those visits was an in-depth understanding of the Project.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• Ore Reserves were estimated using a suit of specialized open pit mine planning software packages, which includes the pit optimization program, the haul analyze program, and the production schedule program (OPMS). The input parameters selected by RPM are based on the review of the Feasibility level geotechnical, hydrological and mining studies completed by the Company, discussions with site personnel and site visit observations. • The estimation of JORC Ore Reserves were prepared based on studies of Feasibility level confidence and actuals from the current operations.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• RPM undertook a cut-off grade analysis based on the reserves parameters to assess the pit optimization sensitivity associated to different cut-off grade strategies. RPM verified that the current cutoff grades applied by the Company are higher than the economic internal cutoffs; however, such difference is justifiable due the low confidence associated to the concentration plants capability in recovering low-grade ores.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimization or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected*	• Two deposits are planned to be mined at Project in the current LOM plan through open pit mining methods which are currently employed. RPM has evaluated the block models used the estimate the Mineral Resources, using a pit optimization software package, which resulted in the identification of approximately 35.7 million tonnes of niobium material and 210 million tonnes of phosphate material that could currently be mined using reasonable assumptions for

Criteria	JORC Code explanation	Commentary
	mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimization (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	costs and metals prices estimate based on Feasibility level studies and actuals form recent operations. • Feasibility level geotechnical studies have been completed by the Company and have been utilised to derive the mine designs slope angles (**Section 9**). • The pit limits and phases were designed with suitable level of detail taking into account the recommended geotechnical and mining operation parameters. • During the development of the pits a number of phases or push back are planned. These phases are planned to ensure consistent ROM ore is produced and minimize long period of waste mining • Mining recovery and dilution were revised and were used with suitable level of detail taking into account the mining method applied and recent mining operations (as such at leave feasibility level study. • RPM reviewed the planned production rates and haulage profiles of the Company within the open pit and the resultant truck and shovel requirements to ensure the rate can be meet planned rates. • All design parameters and assumptions are outlined in ***Section 9*** of this report. • Inferred resources were assumed to be waste in the pit optimization and mine scheduling of the projects. • The mining method will require varying quantities of mining equipment throughout the mine life. These are outlined in ***Section 9*** and are the same as those currently employed.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such*	• The niobium operation consists of three operating floatation concentrators. The concentrates are feed into a single leach and pyro-metallurgical plant located adjacent. This plant produces ferroniobium product. This process is well understood and suitable for the forecast ore types. • The phosphate operations consists of two floatation concentrators. The concentrates are fed to two Fertilizer Plants • Both Fertilizer Plants comprise a number of models, each of which produce or is part of the production of a different products. The production of the various products changes dependent on the demand. As such not all modules are operating at any given point in time. Detailed descriptions of the plants are provided in Section 15 of this report. • Significant testwork has been undertaken of the various ore types, with the current operating plants suitable for the plant LOM ore feeds.

Criteria	JORC Code explanation	Commentary
	samples are considered representative of the orebody as a whole. • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• The Ore reserves are based on the ability of the current plants to produces the require product specifications. The plants have been in production for over 30 years (in some cases), with no issues with product quality to date. The ore types will not change over the mine life as such no issues are forecast to achieve the required product specifications.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• the Company's Phosphate and Niobium operations can be considered well managed, all sites incorporate corporate procedures and standards, legal requirements, and international certifications, such as ISO 9001: 2008 for Quality Management System, ISO 14001: 2004 for Environmental Management System, and Occupational Health & Safety Advisory Services (OHSAS) 18001: 2007 for Occupational Safety and Health Management System. To manage applicable permits, the Company implemented the Escritório de Licença para Operar ("ELO System" or license to operate office), which contains information on the existing permits, the technical requirements associated with each permit, and licensing risks
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The project is in operation and required no further infrastructure construction.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining*	• All costs were based on studies completed by the Company and actuals form recent mining, processing and maintenance. • RPM notes the major CAPEX is for sustaining capital with forecast based on current costs escalated over the LOM. • Metal prices were based on marketing studies by independent third parties, as well as information provided by the Company. • All exchange rates were provided by the Company, with all costs based on USD at an exchange rate of 3.59 reals/USD. • Transportation charges are based on actuals. • The company produces product direct to market, as such no further refining costs are required. • Royalties were based on annualized cost based on actual and known costs in the

Criteria	JORC Code explanation	Commentary
	charges, penalties for failure to meet specification, etc. • *The allowances made for royalties payable, both Government and private.*	future.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *the derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• All mining input parameters are based on the Ore Reserve estimate LOM production schedule. • RPM has based its prices on long term consensus forecast of US $40.93/kg Niobium and US $320.72/tonne Phosphate.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• There is a strong correlation between agricultural production and fertilizer consumption, and as such pricing is not only influenced by the international market supply pricing but also by a number of agriculturally related factors such as weather conditions, grain output and crop prices. Furthermore, fertilizer supply-demand balance, seaborne trade, exchange rates and government policies (funding; subsidies and tariff policies) are also factors that influence both current and future market prices to different extents and can be either seasonal and/or cyclical in nature as with other commodities. • The Company's mines also produce one of the highest quality phosphate concentrates in world, achieving a P_2O_5 concentration higher than 37% along with both high and low content fertilizer products (above and below 30% fertilizer content). This combined with the limited supply of high content fertilizer product domestically (70% is imported), the Company is well placed on the cost competitive curve, as a major market share holder, to not only compete with other domestic producers it is extremely well positioned given the geographic locations of the its operations to compete with international importers to the domestic Brazilian market. RPM highlights that the Company at this time does not export any of the fertilizer products. • The Niobium market is dominated by the production of the mineral pyrochlore (>97% world production). Production of pyrochlore is predominately from Araxá (CBMM) and Catalão (Anglo American Brazil) mines in Brazil and from Magris Resources' Saint-

Criteria	JORC Code explanation	Commentary
		Honoré operation in Canada. There is also some small-scale but intermittent pyrochlore production in Africa. Pyrochlore mined by the Company (Catalão) is all sold internationally and as with its other major supplies all mine production is converted to ferroniobium by the producers prior to sale using an aluminothermic reduction process as outlined in ***Section 9***. At CBMM, it is converted to ferroniobium, along with alloys, niobium metal and oxide products. Most ferroniobium entering the market originates, therefore, in either Brazil or Canada, with Brazil being by far the larger of the two producers.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• RPM derived the inputs for an economic analysis by review of project documentation, by evaluation of project during site visit, by interviews with employees and by own experience • RPM supplied technical input to a licensed Hong Kong Stock Exchange Competent Evaluator for the NPV calculation of discounted cash flows which is presented in Appendix VI of the Circular for reference.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• All licenses and permits are in place for continued production as the forecast rates
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a*	• The Company has short term contracts with all costumers. In addition the Company has a Niobium marketing department. • Maintenance of the aging plants is critical to allow no downtime of the plants. RPM is aware a detailed and systematic planning system is being implemented to ensure maintenance is carried out on time at cost to allow continued production • The market for ferroniobium is dominated by 3 Company of which the company is the number 2 supplier. There is a significant under capacity of supply from these companies and any new sources may impact price.

Criteria	JORC Code explanation	Commentary
	third party on which extraction of the reserve is contingent.	
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• RPM has Classified all the Indicated resource as Probable and Measured resources as Proved. • The classification is consistent with the Competent Person view of the deposits.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• Internal reviews of the Ore Reserves estimate followed RPM's standard internal peer review procedures.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not*	• All related confidence level work was undertaken based on the results of global estimates. • Confidence level for the reserves was tested performing sensitivity check based on economic model generated by RPM, after economically mineable portion of the mineral resource was defined through pit optimization, subsequent mine design and scheduling. Key elements found to be sensitive to the project economics are price of the products as well as operating costs. However, the reserve was found to be resilient to +/-20% variation in key parameters employed for sensitivity test.

Criteria	JORC Code explanation	Commentary
	be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

Appendix D – Data Verification Checks by RPM (Main Permits and Licenses)

Business Unit	Site	File Code	Description	Status	Process Number	Public Permission Number	Issued Date	Expire date
Phosphates	Ouvidor Mine	PH01	Water abstraction for Deep Well - P01	Valid	11021/2014	629/2015	1/06/2015	1/06/2027
Phosphates	Ouvidor Mine	PH02	Installation License renewal for Sterile Deposit - Ouvidor Mine	Valid	574/2011	1206/2015	11/06/2015	11/06/2021
Phosphates	Ouvidor Mine	PH03	Granting - Water abstraction for deep well P2	Valid	11022/2014	483/2015 646/2015	30/06/2015	30/04/2027
Phosphates	Ouvidor Mine	PH04	General operating license renewal for Phosphates Unit - Ouvidor Mine	Valid	9593/2010	11/2015	14/01/2015	30/05/2018
Phosphates	Ouvidor Mine	PH05	Installation License for the raising of Buraco Dam (860 meters).	Valid - under analysis by the environmental agency	19007/2013	108/2014	17/01/2014	17/01/2016
Phosphates	Ouvidor Mine	PH06	Renewal of operating license of fuel tanks from Ouvidor Mine	Valid	17653/2009	22/2014	7/01/2014	7/01/2018
Phosphates	Ouvidor Mine	PH07	Installation License for the construction of Barite Storage Shed	Valid	17985/2013	770/2014	2/04/2014	2/04/2020
Phosphates	Ouvidor Mine	PH08	Granting - Water abstraction at the Taquara I Creek Dam (Rampelotti)	Valid	12185/2013	3277/2013	5/12/2013	5/12/2025
Phosphates	Ouvidor Mine	PH09	Granting - Water abstraction of VALE's Tailings Dam	Valid	9972/2014	1816/2014	24/09/2014	24/09/2020
Phosphates	Ouvidor Mine	PH10	Installation License Renewal - Expansion of a gas station in the industrial complex	Valid	18448/2014	2084/2015	30/09/2015	30/09/2021
Phosphates	Ouvidor Mine	PH11	Granting - Water abstraction at São Marcos river (Maximum flow.: 2.000 m³/h)	Valid	02501.001034/2011-67	596	29/08/2011	29/08/2021
Phosphates	Ouvidor Mine	PH12	Permit for accumulation of water in the Buraco Dam	Valid	21637466/2002	335/2007	3/05/2007	3/05/2019
Phosphates	Ouvidor Mine	PH13	Operating License for water abstraction from VALE's tailings dam	Valid	9576/2014	2270/2015	29/10/2015	29/10/2021
Phosphates	Ouvidor Mine	PP00587	Granting for deep water well drilling	Valid	20526/2012	111/2013	14/01/2013	14/01/2025
Phosphates	Ouvidor Mine	PP00588	Granting for deep water use, through the	Valid	17003242/08	805/2008	23/09/2008	23/09/2020

Business Unit	Site	File Code	Description	Status	Process Number	Public Permission Number	Issued Date	Expire date
			pumping of water from the mine pit					
Phosphates	Ouvidor Mine	PH14	Installation License renewal for the raising of Buraco's Dam (860 meters)	Under Analysis	11084/2015	N/A	18/09/2015	N/A
Phosphates	Ouvidor Mine	PP00613	Granting renewal for water abstraction of Buraco's Creek.	Valid	20485/2012	1026/2015	24/08/2015	24/08/2021
Phosphates	Ouvidor Mine	PP00662	Authorization for the removal of vegetation for the raising of Buraco's Dam (870 meters)	Under Analysis	11864/2015	N/A	N/A	N/A
Phosphates	Ouvidor Mine	PH16	Granting - Deep Water Well Drilling	Valid	20522/12-28928	109/2013	14/01/2013	14/01/2025
Phosphates	Ouvidor Mine	PH17	Granting - Deep Water Well Drilling	Valid	20524/12 - 28929	110/2013	14/01/2013	14/01/2025
Phosphates	Ouvidor Mine	PH18	Granting - Deep Water Well Drilling	Valid	20527/12 - 28932	112/2013	14/01/2013	14/01/2025
Phosphates	Ouvidor Mine	PH19	Granting - Deep Water Well Drilling	Valid	17001594/06-10944	698/2006	25/09/2006	25/09/2018
Phosphates	Ouvidor Mine	PH45	Request for Extension - Construction of A4 Tailings Dam	Valid	9446/2010,	11602/2015	15/12/2015	N/A
Phosphates	Planta Catalão	PH20	General Operating License - Catalão Phosphates Site	Valid	5301.01708/1999-1	274/2009	9/07/2009	19/10/2018
Phosphates	Ouvidor Mine	PP00930	IBAMA's Federal Technical Registry (CTF) - Ouvidor - v.April/2016	Valid	11053	11053	11/04/2016	11/07/2016
Phosphates	Planta Catalão	PH21	Operating License Renewal - Fuel Tank of Catalão Site	Valid	17984/2013	908/2014	15/04/2014	15/04/2020
Phosphates	Planta Catalão	PH22	Granting - Water abstraction from Taquara I Creek Dam (Rampelotti)	Valid	12187/2013-31752	3278/2013	5/12/2013	5/12/2019
Phosphates	Planta Catalão	PH23	Granting - Water abstraction from Taquara II Creek	Valid	22052500/2002 - 5681	333/2011	8/07/2011	8/07/2017
Phosphates	Planta Catalão	PP00579	Granting - Water pumping from Macaúbas' Creek	Valid	9117/2013	885/2014	16/04/2014	16/04/2020
Phosphates	Planta Catalão	PP00612	Granting - Accumulation of Water from Macaúbas' Creek.	Valid	22888160/03 - 6250	784/2005	01/12/2005	01/12/2017
Phosphates	Planta Catalão	PH24	Granting - Deep Water Well Drilling	Valid	20529/12 - 9195	24/2013	4/01/2013	4/01/2025

Business Unit	Site	File Code	Description	Status	Process Number	Public Permission Number	Issued Date	Expire date
Phosphates	Planta Catalão	PH25	Granting - Deep Water Well Drilling	Valid	20532/12 - 28936	106/2013	15/01/2013	15/01/2025
Phosphates	Planta Catalão	PH26	Granting - Deep Water Well Drilling	Valid	20533-12 - 5225	2735/2012	20/12/2012	20/12/2024
Phosphates	Planta Catalão	PH27	Granting - Deep Water Well Drilling	Valid	17003213/08-14365	479/2011	22/08/2011	22/08/2023
Phosphates	Planta Catalão	PH28	Granting - Deep Water Well Drilling	Valid	20530/12 - 28934	955/2015 107/2013	15/01/2013	15/01/2025
Phosphates	Planta Catalão	PH29	Granting - Deep Water Well Drilling	Valid	21637288/02-5230	779/2007	15/08/2007	15/08/2019
Phosphates	Planta Catalão	PH30	Granting - Deep Water Well Drilling	Valid	20531/12 - 28935	105/2013	15/01/2013	15/01/2025
Phosphates	Planta Catalão	PH31	Granting - Deep Water Well Drilling	Valid	26780658/05 - 9167	496/2005	8/08/2005	8/08/2017
Phosphates	Planta Catalão	PP00929	IBAMA's Federal Technical Registry (CTF) - Catalão - v.April/2016	Valid	18236	18236	11/04/2016	11/07/2016
Phosphates	Planta Catalão	PP00845	Installation License for 5 inflatable warehouses	Valid	8/2016	240/2016	16/02/2013	16/02/20122
Phosphates	Planta Cubatão	PP00031	Operating License for the expansion of the superphosphates plant production	Under Analysis	25/00237/13	N/A	N/A	N/A
Phosphates	Planta Cubatão	PH36	Operating License for the phosphogypsum dispatch scale.	Valid	25/10092/14	25001031	29/06/2015	29/06/2017
Phosphates	Planta Cubatão	PH37	Operating License for the expansion of the Rock receiving area	Valid	25/00249/13	25000979	8/09/2014	8/09/2016
Phosphates	Planta Cubatão	PH38	General Operating License renewal - 2013	Valid - under analysis by the environmental agency	25/00331/04	25000910	26/06/2013	26/06/2015
Phosphates	Planta Cubatão	PH39	Preliminary and Installation License for 2 scales with 100 T capacity.	Valid	25/10174/14	25000226	18/09/2014	18/09/2017
Phosphates	Planta Cubatão	PH40	Granting renewal - Water abstraction and effluent discharge	Valid	99073748	2067/2014	4/09/2014	N/A
Phosphates	Planta Cubatão	PH41	Preliminary and Installation License - Expansion of the Rock receiving area	Valid	25/00249/13	25000209	20/02/2014	20/02/2017

Business Unit	Site	File Code	Description	Status	Process Number	Public Permission Number	Issued Date	Expire date
Phosphates	Planta Cubatão	PP00581	General Operating License Renewal - 2015	Valid	25/00331/04	25001090	23/06/2016	23/06/2018
Phosphates	Planta Cubatão	PP00674	Renewal of IBAMA's Federal Technical Registry (CTF) - v.May/2016	Valid	636878	636878	01/06/2016	01/09/2016
Phosphates	Planta Cubatão	PH43	Preliminary and Installation License - Gypsum Facilities	Valid	25/10092/14	25000219	7/07/2014	7/07/2017
Phosphates	Planta Cubatão	PH44	Preliminary and Installation License - Water demineralisation unit	Valid	25/10140/14	25000225	18/09/2014	18/09/2017
Niobium	Mina Catalão	PH46	Installation License - Explosives warehouse	Valid	9213/2014	1210/2015	12/06/2015	12/06/2021
Niobium	Mina Catalão	PH47	Installation License - Temporary warehouse for Boa Vista mine wastes	Valid	20140000826-2	0005/2015	12/01/2015	11/01/2017
Niobium	Mina Catalão	PH48	Installation License - Expansion of Boa Vista mine pit	Valid	22506/2013	1773/2014	8/08/2014	8/08/2020
Niobium	Mina Catalão	PH49	Operating License renewal - Boa Vista Mine	Valid	9377/2011	2755/2013	19/11/2013	19/11/2019
Niobium	Mina Catalão	PH50	Installation License - Ore Deposit (Marcos Area)	Valid	12665/2013	999/2014	5/05/2014	5/05/2020
Niobium	Mina Catalão	PH51	Installation and Operating License Request - ore deposit - Adelina Area	Valid	17972/2014	231/2016	15/02/2016	15/02/201622
Niobium	Mina Catalão	PH52	Installation License - Sterile Deposit - Paulo e Chico Area	Valid - under analysis by the environmental agency	17909/2013	438/2014	25/02/2014	25/02/2016
Niobium	Mina Catalão	PH53	Operating License - new crushing circuit and support units - Boa Vista Mine-BVFR Project	Valid	5659/2014	2124/2014	24/09/2014	24/09/2020
Niobium	Mina Catalão	PH54	Installation License for Scalp	Valid	5659/2014	2250/2015	27/10/2015	27/10/2021
Niobium	Mina Catalão	PH55	Granting - Water abstraction from Capoeira Creek	Valid	9845/2009	917/2010	23/12/2010	23/12/2016
Niobium	Mina Catalão	PH56	Granting - Water abstraction from Boa Vista Mine Pit	Valid	9856/2009	219/2011	20/05/2011	20/05/2017

Business Unit	Site	File Code	Description	Status	Process Number	Public Permission Number	Issued Date	Expire date
Niobium	Mina Catalão	PH57	Granting - Deep Water Well PA 10	Valid	382/2015	742/2015	29/06/2015	29/06/2027
Niobium	Mina Catalão	PP00444	Authorization for Mineral Research - RAC Coqueiros	Under analysis	5159/2015	N/A	N/A	N/A
Niobium	Mina Catalão	PP00663	Installation License for the expansion of the west sterile deposit (Wando area)	Under Analysis	14337/2015	N/A	N/A	N/A
Niobium	Mina Catalão	PP00664	Vegetation Removal Authorization - expansion of the west sterile deposit	Under Analysis	14041/2015	N/A	N/A	N/A
Niobium	Mina Catalão	PH58	Installation License Renewal - Paulo e Chico Sterile Deposit	Under Analysis	11817/2015	N/A	N/A	N/A
Niobium	Mina Catalão	PP00818	Vegetation Removal (Paulo area) - Boa Vista Mine	Under Analysis	14954/2015	N/A	N/A	N/A
Niobium	Mina Catalão	PP00852	Operating License - Explosives Warehouses	Valid	449/2016	391/2016	03/03/2016	03/03/201620
Niobium	Mina Ouvidor	PH59	Installation License - Niobium Extraction and Support Structures - Dome I (Mine II)	Under Analysis	18986/2014	N/A	N/A	N/A
Niobium	Planta Ouvidor	PH60	Installation License - Raising of IIA Tailings Dam (906 meters)	Valid	16790/2014	2700/2014	10/12/2014	10/12/2020
Niobium	Planta Ouvidor	PH61	Operating License for BVFR Plant	Valid	9508/2014	2767/2014	17/12/2014	17/12/2020
Niobium	Planta Ouvidor	PH62	Installation License - Optimization of FeNb Metallurgy and URL (Downstream)	Valid	12392/2014	2247/2015	27/10/2015	27/10/2021
Niobium	Planta Ouvidor	PH63	Operating License Renewal - Niobium Plant	Valid	8662/2011	2446/2013	9/04/2014	17/10/2023
Niobium	Planta Ouvidor	PH64	Operating License Renewal - Tailing	Valid	17364/2010	2707/2013	13/11/2013	13/11/2019
Niobium	Planta Ouvidor	PP00355	Granting - Deep Water Well - PA38	Valid	100/2015	071/2015	22/06/2016	20/06/2022
Niobium	Planta Ouvidor	PH68	Granting - Deep Water Well - PA40	Valid	99/2015-36532	017/2015 1128/2015	4/09/2015	N/A
Niobium	Planta Ouvidor	PH69	Granting - Water Abstraction - Niobium Plant	Valid	10468/2012-27184	1363/2014	16/07/2014	16/07/2026

Business Unit	Site	File Code	Description	Status	Process Number	Public Permission Number	Issued Date	Expire date
Niobium	Planta Ouvidor	PH70	Granting - Water Abstraction - Niobium Plant	Valid - under analysis by the environmental agency	10467/2012-27183	1349/2014	08/07/2014	08/07/2026
Niobium	Planta Ouvidor	PH71	Granting - Water Abstraction - Niobium Plant	Valid	11433/2014-35221	1850/2014	1/10/2014	1/10/2026
Niobium	Planta Ouvidor	PH72	Installation License - New Gas Scrubber	Valid	9214/2014	1784/2014	12/08/2014	12/08/2020
Niobium	Planta Ouvidor	PP00077	Granting - Water Abstraction from São Marcos River	Valid	02501.001090/2013-63	955	05/08/2013	05/08/2033
Niobium	Planta Ouvidor	PH73	Installation License renewal - BVFR Plant expansion	Valid	17901/2013	1618/2014	17/07/2014	17/07/2020
Niobium	Planta Ouvidor	PH74	Granting - Deep Water Well - PA 18	Valid	18247/2010	386/2011 961/2014	25/07/2011 08/05/2014	N/A
Niobium	Planta Ouvidor	PH75	Granting - Deep Water Well - PA 23	Valid	18250/2010-19309	343/2011	13/07/2011	13/07/2023
Niobium	Planta Ouvidor	PH76	Granting - Deep Water Well - PA 24	Valid	18254/2010-19245	965/2014	8/05/2014	N/A
Niobium	Planta Ouvidor	PH77	Granting - Deep Water Well - PA 26	Valid	18224/2010-19273	388/2011 937/2014	25/07/2011 07/05/2014	N/A
Niobium	Planta Ouvidor	PH78	Granting - Deep Water Well - PA 27	Valid - under analysis by the environmental agency	18246/2010	344/2011	13/07/2011	13/07/2023
Niobium	Planta Ouvidor	PH79	Granting - Deep Water Well - PA 28	Valid - under analysis by the environmental agency	18249/2010-19234	346/2011	13/07/2011	13/07/2023
Niobium	Planta Ouvidor	PH80	Granting - Deep Water Well - PA 29	Valid - under analysis by the environmental agency	18252/2010-19248	365/2011	25/07/2011	25/07/2023
Niobium	Planta Ouvidor	PH81	Granting - Deep Water Well - PA 31	Valid	18255/2010-19307	347/2011 963/2014	13/07/2011 08/05/2014	N/A
Niobium	Planta Ouvidor	PH82	Granting - Deep Water Well - PA 33	Valid	7490/2012-26016	386/2011 962/2014	25/07/2011 09/07/2012 08/05/2014	9/07/2024
Niobium	Planta Ouvidor	PP00468	Installation License for the raising of 2B Dam	Valid	6820/2015	818/2016	11/05/2016	11/05/2022

END

OF

REPORT

For China Molybdenum Co., Limited pertaining to the Niobium Business (as defined herein) and Phosphates Business (as defined herein) as at 30th June 2016

Censere Reference C00069-5-r1

8th September 2016

Letter of Transmittal

Censere (Far East) Limited
3/F, Tower Two, Tern Centre,
251 Queen's Road Central,
Hong Kong

Tel: +852 2511 2011
Fax: +852 2511 2005
Email: hk@censere.com
www.censere.com

Our reference: C00069-5-r1

8th September 2016

The Directors
China Molybdenum Co., Limited
Huamei Shan Road, Chengdong New District,
Luanchuan County, Luoyang City,
Henan Province, China

Dear Sirs/Madams,

In accordance with your instructions, we have undertaken an analysis to determine the Market Value of the niobium business which mines, processes and manufactures market ready ferroniobium ("**Niobium Business**") and the phosphates business which mines, processes and manufactures a myriad of fertilizer products ("**Phosphates Business**") (collectively the "**Project**"). China Molybdenum Co., Limited ("**CMOC"** or **"Company**") announced on 29th April 2016 that on 28th April 2016, an agreement (the "**Agreement**") was entered into with several wholly-owned subsidiaries of Anglo American plc ("**AA"** or **"Vendor**") to acquire the shares in Anglo American Nióbio Brasil Limitada ("**AANB**") and Anglo American Fosfatos Brasil Limitada ("**AAFB**") (together with certain other assets related to the business of AANB) (collectively the "**Target Group**"). The Company plans to acquire 100% interest of the Target Group for a consideration of USD1.5 billion (as adjusted in accordance with the terms of the Agreement).

CMOC is dual listed on the Main Board of the Stock Exchange of Hong Kong Limited (the "**HKEx**") and the Shanghai Stock Exchange (the "**SSE**"). The Company is headquartered in Luoyang, China. CMOC specialises in mining, dressing, smelting and processing of molybdenum and tungsten, integrating scientific research, production and trading. Currently its market value ranks in the top 30 mining companies globally, and is the world's fourth-largest molybdenum and second-largest tungsten producer. In Australia, CMOC is the fourth largest producer of copper.

Our date of valuation is 30th June 2016 ("**Valuation Date**") and our report which follows is dated 8th September 2016 ("**Report Date**"). The Effective Date of our report is the same at the Valuation Date.

Under Chapter 18 of Hong Kong Listing Rules ("**Chapter 18**"), CMOC is required to prepare a valuation report which is part of the Competent Person's Report ("**CPR**") for any major mineral asset acquisition that must form part of the relevant circular to shareholders. The purpose of our analysis is to determine the Market Value of the Project in accordance with Chapter 18. In that regard, we have been engaged as Competent Evaluator and have adopted the VALMIN Code (as defined herein) in arriving at our assessment.

This valuation has been undertaken on a Market Value basis. For the purposes of this exercise, Market Value is defined as the estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset (as defined herein) should exchange on the date of Valuation between a willing buyer and a willing seller in an arm's length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion.

Based on the analysis outlined in the report which follows, we are of the opinion that the Market Value of the Project as at the Valuation Date is as follows:

US$	**Low**	**Most Likely Outcome**	**High**
Value of the Niobium Business	660.5 million	715.5 million	780.0 million
Value of the Phosphates Business	763.3 million	876.9 million	1,030.6 million
Value of the Project	**1,400 million**	**1,600 million**	**1,800 million**

Note: Numbers in the table may not add due to rounding

The following pages outline the factors considered, methodologies and assumptions employed in formulating our opinions and conclusions. Any opinions are subject to the assumptions and limiting conditions contained therein.

Yours faithfully
For and on behalf of
Censere (Far East) Limited

Brett Shadbolt
Chief Executive Officer

1. VALUER'S BIOGRAPHY

Censere Group, comprising both Censere and Stratiqa, is a specialist valuation, forensic and advisory group head-quartered in Singapore with nineteen offices throughout Asia Pacific and the United States. Censere offices are located at Auckland, Bangkok, Beijing, Ho Chi Minh, Hong Kong, Houston, Jakarta, Kuala Lumpur, Maldives, Seoul, Shanghai, Singapore, Sydney, Taipei, Tokyo and Washington DC while Stratiqa has offices in New York, San Francisco and Singapore. Censere Group was established in 2002 and offers comprehensive technical asset, intellectual property and business valuation and advisory services to major corporates and leading SMEs in the Asia Pacific region. This engagement has been principally undertaken by Brett Shadbolt, Chief Executive Officer of Censere Group.

Brett Shadbolt is the Chief Executive Officer and Founder of Censere Group. He has over 30 years of dedicated valuation and advisory experience and has a MSc in Global Finance jointly conferred by NYU Stern and HKUST. Brett is a Professional Member of Royal Institute of Chartered Surveyors, Registered Business Valuer (HK), Member of the Hong Kong Securities Institute, Energy Risk Professional of GARP and Professional Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Brett has conducted numerous valuations for companies such as Advanced Micro Devices (AMD), China Molybdenum, ChinaSoft, DY Affluent, ERA Real Estate, Garena, Glamour Sales, KV Asia, L Capital, Multimedia Development Corporation, MyIPO, Navis Capital, Nikkei, Oriental Fortune Group, Panasonic, Quam, Southern Capital, Terratech Resources and UTAC. He has written numerous articles about valuation and financial due diligence in emerging markets and is a regular speaker at conferences on the same topics.

Dr. Francois Grobler is the lead of mining valuation in China United Assets Appraisal Group (Australia). He has more than 20 years' experience in the mining industry covering a wide number of disciplines including geology, mining engineering, mineral economics, mining finance and business optimisation. Francois has a BSc (Hons) degree in Geology (UOFS) and an MScEng in Mineral Economics (WITS). He completed post graduate diplomas in Financial Management (UNISA) and Financial Project Evaluation (Ecole des Mines). Francois completed his PhD thesis in Applied Mathematics (Curtin) focussing on Operations Research applied to Mining Schedule Optimisation. Francois is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) as well as a member of the South African Institute of Mining and Metallurgy (SAIMM). He is also a member of the South African Council for Natural Scientific Professions (SACNASP). He is a certified Pr.Sci.Nat (Professional Natural Scientist) with SACNASP and a qualified Certified Professional (CP Management) with AusIMM. Francois has the relevant experience and qualifications to serve as a "Specialist" or "Practitioner" under the VALMIN Code.

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3. DEFINITIONS AND GLOSSARY

For the purpose of this report, the following terms have, where appropriate, the following meanings:

Abbreviation	Meaning
"%"	Percent
"AAFB"	Anglo American Fosfatos Brasil Limitada
"AANB"	Anglo American Nióbio Brasil Limitada
"Argus Media"	Argus Media Ltd
"AusIMM"	The Australasian Institute of Mining and Metallurgy
"CAGR"	Compound annual growth rate
"CAPM"	Capital asset pricing model
"China", the "PRC" or the "People's Republic of China"	Mainland China, excluding, for the avoidance of doubt, Hong Kong and Macau
"Chapter 18"	Chapter 18 of the Hong Kong Listing Rules
"Comparables"	Comparable listed companies
"Consideration"	consideration of US$1.5 billion (as adjusted in accordance with the terms of the Agreement) which shall be satisfied by the Company to the Vendor for the purchase of the sale interest pursuant to the Agreement
"CMOC" or "Company"	CMOC Mining Pty Ltd
"D/E ratio"	Debt-to-equity ratio

Abbreviation	Meaning
"DCF"	Discounted cash flow
"Effective Date"	30th June 2016, also referred to as the Valuation Date
"FCFF"	Free cash flow to firm
"FP 2016"	The financial period 1st July 2016 to 31st December 2016
"FY"	Financial year ended 31st December
"ha"	Hectare
"HKEx"	Stock Exchange of Hong Kong Limited
"Competent Person" or "CP"	Runge Pincock Minarco
"Competent Person's Report" or "CPR"	Competent person report dated 8th September 2016 prepared by Runge Pincock Minarco in relation to the Project (as defined herein)
"Indicated Mineral Resource"	Part of a Mineral Resource (as defined herein) for which quantity, grade, (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of economic viability of the deposit
"Inferred Mineral Resource"	Part of a Mineral Resource (as defined herein) for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity
"IMF"	International Monetary Fund

Abbreviation	Meaning
"JORC Code"	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 edition), as published by the Australasian Joint Ore Reserves Committee, as amended from time to time
"Listing Rules"	Rules Governing the Listing of Securities on the Hong Kong Stock Exchange
"Management"	Management of CMOC
"Market Value"	Estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset should exchange on the date of Valuation between a willing buyer and a willing seller in an arm's length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion
"Measured Mineral Resources"	Part of a mineral Resource (as defined herein) for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit
"Mineral Assets"	Mineral assets or the equivalent as defined in the VALMIN Code
"Mineral Resources" or "Resources"	Concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction
"Mt"	Million tonnes
"Niobium Business"	Niobium business which mines, processes and manufactures market ready ferroniobium for international demand
"NPV"	Net present value

Abbreviation	Meaning
"Ore Reserves" or "Reserves"	Economically mineable part of a Measured and/or Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of modifying factors
"p.a."	Per annum
"Phosphates Business"	Phosphates Business which mines, processes and manufactures a myriad of fertilizer products for domestic demand
"Probable Reserve"	Economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the modifying factors applying to a Probable Reserve is lower than that applying to a Proved Reserve
"Project"	Niobium Business and Phosphates Business
"Proved Reserve"	Economically mineable part of a Measured Mineral Resource. A Proved Reserve implies a high degree of confidence in the modifying factors
"Reserves"	Economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of modifying factors
"Resources"	Concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction
"Report Date"	8th September 2016
"ROM"	Run-of-mine

Abbreviation	Meaning
"Roskill Consulting Group"	Roskill Consulting Group Limited
"Technical Value"	Technical Value is an assessment of a mineral asset's future net economic benefit at the Valuation Date under a set of assumptions deemed most appropriate by a practitioner, excluding any premium or discount to account for market considerations
"tpa"	Tonnes per annum
"VALMIN Code"	Code for the technical assessment and valuation of mineral and petroleum assets and securities for independent expert reports (2015 edition), as prepared by the VALMIN Committee, a joint committee of The Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Mineral Industry Consultants Association as amended from time to time
"Valuation Date"	30th June 2016
"WACC"	Weighted Average Cost of Capital
"US"	United States of America
"US$"	United States dollars, the lawful currency of the United States of America

4. PREAMBLE

4.1 Brief Description of Project

The Project is a vertically integrated Niobium and Phosphates Business which mines, processes and manufactures market ready ferroniobium and a myriad of fertilizer products. Its operation occurs in Catalão and Cubatão, Brazil. The mining project is currently undertaken via conventional open pit methods within two areas (Catalão Complex I and II) and is supported by various processing plants which produce the products.

The Niobium Business is operational and located approximately 15 km northeast of the regional cities of Catalão and Ouvidor and 115 km to the north of the major provincial city of Uberlândia. Its operation consists of 3 operating floatation concentrators which are currently fed from 2 sources, the Boa Vista open pit (oxide and fresh material) and tailing material from the phosphate concentrators. Combined, the 3 concentrators have a throughput capacity of 3.1 dry million tonnes per annum ("**mtpa**") ROM. The concentrates are fed into a single leach and pyro-metallurgical plant located adjacent to the concentrators. This plant produces approximately 13 kilo tonnes per annum ("**ktpa**") of ferroniobium. Ferroniobium is transported via trucks to the Santos port for shipment to international markets.

The Phosphates Business is operational and located near Catalão and Cubatão. It has one main mining area, namely Chapadão mine located in the Catalão Complex I. The phosphate operations include two floatation concentrators, which combined have a throughput rate of 5.8 mtpa ROM. The concentrators produce a slurry concentrate which is pumped via a 7 km pipeline to the separating station within the Catalão Fertilizer plant. This station separates the fine and coarse materials within the slurry. All fines and 55% of the coarse material are fed directly to the Catalão Fertilizer Plant, the remaining 45% coarse material is transported 750 km via rail to the Cubatão Fertilizer Plant.

The Catalão Fertilizer Plant and Cubatão Fertilizer Plant comprise a number of processes that produce various products. Chemical consumables such as sulphur, ammonia and lime are required to produce phosphate products. Chemicals are transported to the fertilizer plant by truck. Presently, phosphate products are sold to the domestic market only.

According to the CPR, all key mining tenements are currently valid for continued operation of the assets to support the planned production rates. Mining and exploration licenses and authorizations held are shown in the following table:

ID	Label	Area (ha)	Status	Legal Diploma	Date Protocol (M/D/Y)	Renewal Deadline	DNPM Application for	Potential Commodities
860.119/14	FFG-019	1,035.40	Exploration	728	26/02/2015	24/02/2017	phosphate	niobium & phosphate
861.103/13	FFG-008	1,704.22	Exploration	7,113	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.210/13	FFG-009	852.45	Exploration	7,153	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.211/13	FFG-010	1,100.70	Exploration	7,154	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.212/13	FFG-011	768.67	Exploration	7,155	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.379/13	FFG-015	1,950.53	Exploration	7,175	3/09/2015	1/09/2017	phosphate	niobium & phosphate
861.380/13	FFG-016	1,000.85	Exploration	7,176	3/09/2015	1/09/2017	phosphate	niobium & phosphate
801.560/68	FFG-001	166.76	Mine Concession	85	27/01/1984		niobium, phosphate, barite	niobium, phosphate, barite
804.513/68	AREA-05	40.94	Mine Concession	87	6/05/2004		niobium, phosphate, barite	niobium, phosphate, barite
860.402/01	FFG-004	455.91	Mine Concession Application	6,370	6/09/2004		phosphate	niobium, phosphate, barite
860.897/12	DGF-005	1,996.90	Application Claim – Ouction				niobium and phosphate	niobium & phosphate
860.898/12	DGF-004	1,958.31	Application Claim – Ouction				niobium and phosphate	niobium & phosphate
861.461/15	FFG-007/B	1,964.07	Application Claim	20	21/01/2016	21/01/2019	phosphate	niobium & phosphate
860.351/03	MCG-003	726.08	Mine Concession Application	4,883	13/03/2007		niobium	phosphate & niobium

More detailed information about the Project is contained in the section titled "The Project".

4.2 Purpose of VALMIN Valuation

The purpose of our investigation is to determine the Market Value of the Niobium Business and Phosphates Business for acquisition purposes in accordance with Chapter 18 of the Hong Kong Listing Rules ("**Chapter 18**"). In that regard, we have been engaged as Competent Evaluator and have adopted VALMIN Code in arriving at our assessment. This report outlines the information and assumptions upon which the valuation of the Project is based, the valuation model applied and the conclusions reached.

Our report should not be used or relied upon for any other purpose other than noted herein.

4.3 Basis of Valuation

We have conducted the valuation on a Market Value basis. The VALMIN Code states that Market Value is "the estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset should exchange on the date of Valuation between a willing buyer and a willing seller in an arm's length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion".

The Market Value comprises a technical value plus or minus, in some cases, a premium or discount to account for such factors as market, strategic considerations or special circumstances. However, it should be recognised that some assets, such as exploration areas may not have a technical value.

The VALMIN Code contains five main requirements:

- Competence
- Materiality
- Transparency
- Reasonableness
- Independence

Competence or being *Competent* requires that the report is based on work that is the responsibility of a suitably qualified and experienced person who is subject to an enforceable professional Code of Ethics.

Materiality or being *Material* requires that the report contains all the relevant information that investors and their professional advisors would reasonably require, and reasonably expect to find in the report, for the purpose of making a reasoned and balanced judgement regarding the technical assessment or mineral asset valuation being reported.

Transparency or being *Transparent* requires that the reader of the report is provided with sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by this information or by omission of Material information.

Reasonableness requires that an assessment that is impartial, rational, realistic and logical in its treatment of the inputs to a valuation or technical assessment has been used, to the extent that another practitioner with the same information would make a similar technical assessment or valuation.

Independence or being *Independent* requires that there is no present or contingent interest in the mineral asset(s), nor is there any association with the commissioning entity or related parties that is likely to lead to bias.

For this assignment, we have not carried out any work in the nature of a feasibility study nor are we required to express a viability opinion on any proposed transaction. We have relied on information provided by the Company and/or Runge Pincock Minarco in arriving at our valuation estimates. We have obtained written confirmation from the Company that full, accurate and true disclosure of all material information has been made available to us to facilitate our review and analysis to determine the Market Value of the Project.

We have conducted the necessary checks, enquiries, analyses and verification procedures to establish reasonable grounds for establishing the soundness of the contents and conclusions of this valuation report.

As part of our analysis we have received, reviewed and analysed, in accordance with the VALMIN Code, commercially sensitive information which is not able to be included in our report, but which is essential in reaching our conclusions. This includes, but may not be limited to:

- historical annual operating and processing costs, together with forecasts by Management or the CP;

- historical annual capital expenditure costs, together with forecasts by Management or the CP; and

- historical annual operating margins, together with forecasts by Management or the CP.

These underlying data has been provided to us by Management or the CP respectively, but due to the commercially sensitive nature of the information, we have either presented this in aggregate form, or only provided descriptive tags rather than the actual figures themselves. Despite the above, this report is prepared and presented in accordance with the VALMIN Code.

Our valuation is only an indicative quantum at which interests in the Project might be reasonably be expected to be sold at the Valuation Date and may be different from the actual transacted price.

4.4 Statement of Independence

We confirm that we have no present or contemplated interest in the assets which are the subject of the valuation and are acting independent of all parties. Further, our fees of US$98,000 are agreed on a lump sum basis and are not contingent on the outcome.

4.5 Limitation of Circulation

This valuation report has been prepared solely for inclusion in the circular of the Company and is not intended for any legal or court proceedings without our prior written consent. We will assume no responsibility or liability for any losses incurred by you or any third party as a result of unauthorised circulation, publication or reproduction of this report in any form and/or if used contrary to the purpose stated therein. Censere understands that the valuation will be incorporated into the Company's circular for public disclosure purposes and have provided a letter of consent for the inclusion of the valuation report into the circular.

5. SOURCES OF INFORMATION

In preparing our report, we have received and reviewed information from Management and held discussions with them. We have relied, in some instances, to a large extent, on such information in arriving at our valuation; including, but not limited to, the following:

- announcement made by the Company in relation to the Proposed Acquisition dated 29th April 2016;
- CPR prepared by Runge Pincock Minarco dated 8th September 2016;
- historical financial information of Niobium Business and Phosphates Business from FY2014 to 30th June 2016;
- discussion with the following personnel:
    - Mr. Chen Ching Yung – Chief Financial Officer of CMOC;
    - Mr. Fred Li – Business Development Director of CMOC;
    - Mr. Jeremy Clark – Manager of Runge Pincock Minarco; and
- all other information and representations provided by Management.

In addition, we have made reference to, and relied upon, other information such as:

- Risk free rate and market risk premium information for Brazil from Bloomberg;
- Chapter 18 of the Hong Kong Listing Rules;
- Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (2015 edition), as prepared by the VALMIN Committee in Australia ("**VALMIN Code**");
- The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 edition), as published by the Joint Ore Reserves Committee, as amended from time to time ("**JORC Code**");
- research report titled "Anglo American Niobium Industry Outlook" prepared by Roskill Consulting Group dated in January 2016;
- research report titled "Market Study on Brazilian Phosphates Final Report" prepared by Argus Media dated in January 2016;
- US inflation rate from International Monetary Fund ("**IMF**"); and
- historical financial information of the Comparable Companies from Bloomberg.

6. VALUATION CONSIDERATIONS

We have inspected the sites and processing facilities where the Project operates and note that the facilities are in good operating condition.

Dimensions, measurements and areas included in the valuation report are based on information contained in the documents provided to us by the Company.

We have also considered the information in the CPR and the specialists (where applicable) who contributed to the findings within this CPR have each consented to the matters based on their information in the form and context in which it appears in the CPR.

Censere has engaged Dr. Francois Grobler to review the CPR and to identify any material issues with the methodology adopted by RPM in preparing the CPR used to derive the Mineral Resources and Ore Reserves figure in accordance with the JORC Code. Francois has reviewed the CPR and concluded that all of the methodologies followed in the compilation of the CPR is in compliance with the JORC Code.

We have no reason to doubt the truth and accuracy of the information provided to us by the Company.

7. KEY CAVEATS AND ASSUMPTIONS

In preparing our assessment, we have made the following key limitations and assumptions as of the Valuation Date in our valuation model and these apply throughout unless otherwise stated:

- the mining and production schedules reflect the operational status and life of mine production plan for the Project;
- the time period between production/processing and sales is reasonably short;
- forecasts for capital cost and production costs throughout the forecast period is based on CPR and have been provided to Censere. The Company is responsible for the contents, estimations, and assumptions used in the forecast;
- the Project shall have sufficient financial liquidity and working capital to achieve the financial forecast and projections;
- there are no other liabilities including any contingent liabilities or unusual contractual obligations or substantial commitments which would have a material effect on the value of the Project;
- there will be no material change in the existing political, legal or regulatory (including changes in legislation, laws or regulations, government policies or rules), fiscal, market, logistic and shipping or economic conditions in Brazil and elsewhere;
- there will be no material changes to inflation, interest rates or exchange rates from those prevailing as at the Valuation Date;
- there will be no material change in the bases or rates of taxation or duties in Brazil and elsewhere;
- operation of the Project will not be severely interrupted by any force majeure event or unforeseeable factors or any unforeseeable reasons that are beyond the control of Management, including but not limited to, the occurrence of natural disasters or catastrophes, epidemics or serious accidents; and
- other assumptions specific to a particular valuation approach or certain observations and conclusions are outlined in the ensuing sections of the report.

Any deviation from the above key limitations and assumptions may significantly vary the valuation of the Project. Our valuation is largely based on information provided by the Company and the Company is responsible for their contents and accuracy. Nevertheless, we have conducted the necessary checks, enquiries, analyses and verification procedures to establish reasonable grounds for establishing the soundness of the contents and conclusions of this valuation report. We have also considered the information in the CPR and information provided by the specialist(s) who contributed to the findings in the CPR. The specialist(s) has/have consented to matters based on their information, in the form and context in which it appears in the CPR.

For this exercise, we have obtained, and considered, published market data and other publicly available information relating to comparable companies from sources which we regard to be reputable and reliable. We make no representations as to the accuracy of the content in such published market data and other publicly available information in deriving parameters used for the financial forecasts and valuations models, and have accepted such information without detailed verification.

8. STANDARD LIMITING CONDITIONS

Our assessment is subject to the following standard limiting conditions and these apply throughout unless otherwise stated:

- we shall not be required to give testimony or attendance in court or to any government agency by reason of this valuation, with reference to the property described herein, unless prior arrangements have been made; and

- our report is for the use of the party to whom it is addressed and no responsibility is accepted from any third party for the whole or any part of the contents of our report.

9. THE PROJECT

9.1 Background

CMOC announced on 29th April 2016 that on 28th April 2016, an agreement was entered into with several wholly-owned subsidiaries of AA to acquire the shares in AANB and AAFB (together with certain other assets related to the business of AANB) (collectively the "**Target Group**"). The Company plans to acquire 100% interest of the Target Group for a consideration of USD1.5 billion (as adjusted in accordance with the terms of the Agreement).

Censere has been instructed by CMOC to undertake an independent valuation of the Niobium Business and Phosphates Business that are expected to be acquired by CMOC, both of which are located in state of Goiás, Brazil, as at the Valuation Date.

9.2 Niobium Business

The Niobium Business is located near the town of Catalão and Ouvidor in the state of Goiás, Brazil. The mines are approximately 25 km away from the Catalão Concentrators and serviced by sealed roads. The nearest major city is Uberlândia at a distance of approximately 115 km south of Catalão. The nearest port is the Santos port, approximately 750 km from the Catalão Concentrators, for shipment to international markets.

The Niobium Business operates under a mining concession, which is valid for the life of mine period and a production operation license. It has been in production continuously since 1970's.

Conventional open pit mining is currently underway in parts of the mine concession, using contractors to remove the overburden and to extract the niobium. The current ROM niobium production rate is 3.1 dry million tonnes per annum.

The mine has three defined resource areas, namely Boa Vista, Mina I and Mine II. Niobium is crushed at the processing facility and hauled some 750 km to the port of Santos.

Niobium produced by the Niobium Business is sold (through a separate marketing function) as ferroniobium (65% Niobium) to international markets including Europe, United States ("**US**"), China, South Korea and Japan. Management is planning to reach total annual capacity to 9.0 ktpa of niobium by the second half of year 2016.

Based on the CPR, the Ore Reserves and Mineral Resources were prepared and reported in accordance with the JORC Code and are shown as follows:

Mineral Resources (inclusive of Ore reserves)

Deposit Area	**Resource Classification**	**Million tonnes** *(Mt)*	**Nb2O5** *(%)*
BOA VISTA OXIDE OP	Measured	0.3	0.86
	Indicated	0.1	0.74
	Inferred	1.3	0.83
	BV Oxide OP Total	**1.7**	**0.83**
BOA VISTA FRESH ROCK OP	Measured		
	Indicated	27.1	0.95
	Inferred	13.1	1.06
	BV Fresh Rock OP Total	**40.2**	**0.99**
BOA VISTA FRESH ROCK UG	Measured		
	Indicated	0.2	0.89
	Inferred	6.3	1.24
	BV Fresh Rock UG Total	**6.5**	**1.23**
MINA I OXIDE OP	Measured		
	Indicated	7.9	0.97
	Inferred	5.5	0.92
	Mina I Oxide Total	**13.4**	**0.95**

Deposit Area	Resource Classification	Million tonnes *(Mt)*	Nb2O5 *(%)*
MINA II FRESH ROCK OP	Measured	0.1	1.19
	Indicated	3.2	1.19
	Inferred	2.6	1.06
	Mina II Fresh Rock OP Total	**5.9**	**1.13**
MINA II FRESH ROCK UG	Measured		
	Indicated		
	Inferred	2.2	1.07
	Mina II Fresh Rock UG Total	**2.2**	**1.07**
Total	**Measured**	**0.4**	
	Indicated	**39**	
	Inferred	**31**	
	Grand Total	**70**	

Note: Numbers in the table may not add due to rounding, Source: CPR

Ore Reserves

Description	kilo tonnes (kt)	Nb2O5 (%)
Proved	500	0.90
Probable	35,000	0.92
Total	**35,500**	**0.92**

Note: Numbers in the table may not add due to rounding, Source: CPR

The above information related to the quantity and quality of Ore Reserve and Mineral Resources was extracted from CPR. We have reviewed it and we are of the opinion that it is reasonable.

For the purpose of the valuation exercise, we have not considered the amount of Inferred Mineral Resources in accordance with Chapter 18. However, we have illustrated a value that includes the Inferred Mineral Resources in section 11.1.6 as one of the scenarios which may not necessarily represent an achievable Market Value.

9.3 Phosphates Business

The Phosphates Business is located near the town of Catalão and Ouvidor in the state of Goiás, Brazil. The Phosphates Business is in the Catalão Complex I and also consists of two flotation concentrators. A railroad link allows access from Catalão to the heavily industrialised coastal southeastern area of Brazil with a direct line to Cubatão fertilizer plant which supports the Catalão operation. The Cubatão plant is located in the city of Cubatão, the state of São Paulo, 12 km away from Santos seaport.

The Phosphates Business is governed by a mining concession, which is valid for the life of mine period and a production operation licence. It has been in production continuously since 1976.

Open cut mining is currently underway in parts of the mine concession, using contractors to remove the overburden and to extract the phosphate. The ROM phosphate throughput rate is 5.8 million tonnes per annum.

The mine has one defined resource area, namely Chapadão. The feed for the plants is oxide material from the adjacent Chapadão pit. Based on the CPR, the Chapadão pit has a mine life of 37 years. There are two phosphate concentrators namely Plant 47 and Plant 76. Concentrators produce a slurry concentrate which is pumped via a 7 km pipeline to the separating station within the Catalão Fertilizer plant. This station separates the fined and coarse materials within the slurry, all fines and 50% of the coarse material are fed directly to the Catalão Fertilizer Plant, the remaining 50% coarse material is transported 750km via rail to the Cubatão Fertilizer Plant.

The Catalão Fertilizer Plant and Cubatão Fertilizer Plant comprise a number of processes that produce various products. Chemicals such as sulphur, ammonia and lime are required to produce phosphate products. Chemicals are transported to the fertilizer plant by truck. Presently, phosphate products are sold to the domestic market only.

Based on the CPR, the Ore Reserves and Mineral Resources were prepared and reported in accordance with the JORC Code and are shown as follows:

Mineral Resources (inclusive of Ore Reserves)

Deposit Area	**Resource Classification**	**Million tonnes** *(Mt)*	**P_2O_5** *(%)*
CHAPADÃO OXIDE OP	Measured	75	13.2
	Indicated	230	11.9
	Inferred	65	9.9
	Chapadão Oxide Total	**370**	**11.8**

Note: Numbers in the table may not add due to rounding, Source: CPR

Ore Reserves

Description	kilo tonnes (kt)	P_2O_5 (%)
Proved	56,000	13.2
Probable	150,000	12.0
Total	**206,000**	**12.3**

Note: Numbers in the table may not add due to rounding, Source: CPR

The above information related to the quantity and quality of Ore Reserve and Mineral Resources was extracted from CPR. We have reviewed it and we are of the opinion that it is reasonable.

For the purpose of the valuation exercise, we have not considered the amount of Inferred Mineral Resources in accordance with Chapter 18. However, we have included a scenario that includes the Inferred Mineral resources in section 11.8 as one of the scenarios for illustration purposes only. We are not implying that the value could be achieved.

9.4 Site Visits

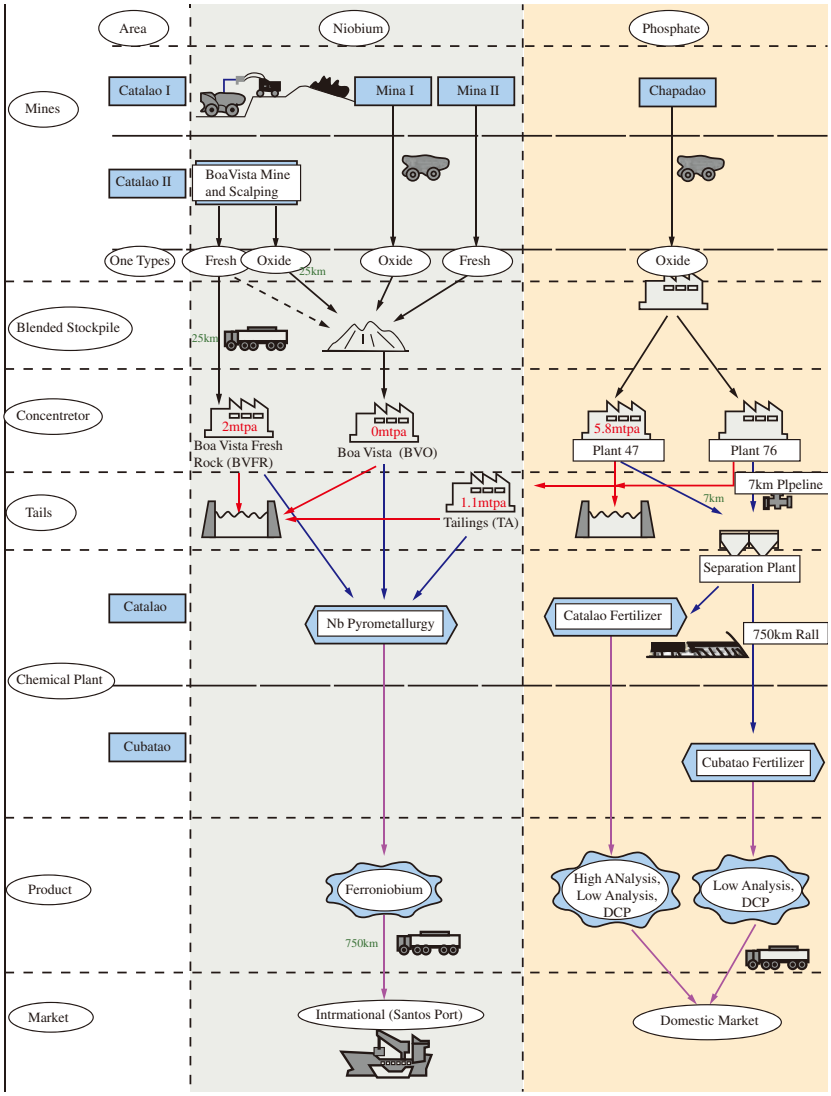
Mr. Brett Shadbolt and other Censere team members conducted site visits in 5th to 7th July 2016 and 22nd to 24th August 2016 for both the Niobium Business and Phosphates Business. Please refer to the map and photographs of the site in Appendices 1 and 2 respectively.

We note that the Company has appointed Pinheiro Neto Advogados to conduct legal due diligence as to the validity of licences, permits and approvals which CMOC requires to carry on its operations. As stated in the report from Pinheiro Neto Advogados, the Company has obtained the material licences, permits and approvals for its operations and has complied with the conditions imposed thereunder.

9.5 The Mining Methods

The mining method currently used for both the Niobium Business and Phosphates Business, is conventional open pit mining.

All mining operations are conducted by contractors via conventional truck and shovel open pit mining methods. Waste material from the pits is delivered through a series of haul roads to onsite waste dumps for storage at each of the current operations. Ore is hauled via trucks and tipped directly into one of two primary crushers which are located adjacent to each pit. Following crushing, the ore is transported to the respective Niobium or Phosphate concentrator (via a 25 km haul road from Boa Vista). The ferroniobium is loaded onto sea-going vessels for delivery to customers and a myriad of fertilizer products are sold to domestic customers. Below is a detailed flow-chart illustrating the main production process.



Source: CPR

10. VALUATION METHODOLOGY

For both the Niobium Business and the Phosphates Business we have utilised the Discounted Cash Flow method. The reason for using this method is to capture the cash flows of future periods throughout the Project; it is also a fundamental approach that is widely used within the extractive minerals industry for valuing operational, or soon to be operational, mine(s).

For the Niobium Business, other valuation methodologies such as transaction multiples, market multiples and all methods under the cost approach were considered but discarded. With regards to market multiples, there are insufficient publicly traded companies suitable to use as comparables in order to conduct a meaningful comparison. Similarly, we could not find sufficient market transactions of similar assets in order to assess value under the transaction multiples method. The cost approach is not suited to producing or developed mineral assets as it ignores the costs, benefits and risks associated with operating assets. Therefore we have relied solely on the Discounted Cash Flow method.

For the Phosphates Business, in addition to the Discounted Cash Flow method, we have also considered the Market Multiples method. However, for the same reasons as for the Niobium business, we have not adopted the transaction multiples method or any of the cost based methods.

10.1 Discounted Cash Flow Method

The DCF method involves Projecting a series of periodic cash flows to an operating property. A discount rate is then applied to the cash flow series to arrive at a present value of the income-producing property.

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \cdots + \frac{CF_n}{(1+r)^n}$$

where:

CF = cash flow
r = discount rate
n = time period (year)

To use discounted cash flow to value the Project, it is necessary to:

- Consider the riskiness of the Project and estimate an appropriate discount rate reflecting the riskiness of the assets and time value of money; and

- Estimate expected cash flows on the Project for the life of the operations.

10.1.1 Assumptions

The valuation is subject to the following assumptions:

- the time period between production and sales is reasonably short;
- working capital forecast for the Project is based on the historical trends of the Niobium Business and Phosphates Business from FY2013–2015 which are as follows:

Niobium Business	**Average number of days turnover**
Accounts receivables	34 days
Accounts payables	27 days
Inventory	129 days

Phosphates Business	**Average number of days turnover**
Accounts receivables	38 days
Accounts payables	44 days
Inventory	72 days

- royalties of US$1.1 to US$1.4 million for the Project are based on CPR;
- income tax rate of 34% is based on Brazil corporate tax rate;
- niobium revenue is derived from sales of ferroniobium, where niobium is priced on US$ per kg of Nb (i.e. ferroniobium is converted to niobium content using a 65% conversion factor) with pricing mainly a function of market conditions and customer type;
- The niobium price (real 2015) and the price for fertilizer products (real 2015), production quantity and escalation rates for inflation, are based on Roskill Consulting Group, Argus Media, CPR and IMF respectively for the period commencing from FY2016. Niobium price is determined by escalating Roskill Consulting Group niobium price (real 2015) using IMF's published forecast US inflation rate;

- for the period commencing from FY2016, Argus Media forecast MAP price (real 2015) is escalated with IMF's published forecast US inflation rate;

- prices for other fertilizer products are based on historical product selling price;

- capital cost and operating cost is escalated based on IMF's published forecast US inflation rate.

10.1.2 Discounted Cash Flow Valuation

Net Cash Flow

Cash flow refers to flow or movement of cash into or out of the asset. The DCF method is based on periodic net cash flows discounted by the discount rate. Net cash flow is defined as cash inflows minus cash outflows.

Net Cash Flow = EBIT – Tax + Depreciation & Amortization – Working Capital Additions – Capital Cost

where

EBIT = Sales revenue – total operating cost

Revenue

Niobium revenue is derived from sales of ferroniobium, where niobium is priced on US$ per kg of Nb (i.e. ferroniobium is converted to niobium content using a 65% conversion factor) with pricing mainly a function of market conditions and customer type. Phosphate revenue is derived from the sale of fertilizer products and non-fertilizer products; principally Dicalcium Phosphate ("**DCP**"), phosphoric acid and sulphuric acid.

Operating Cost

Cash outflows include operating costs and SG&A.

Discount Rate

To discount the future cash flows to their present value, we have used the weighted average cost of capital ("**WACC**") as the discount rate. The discount rate reflects the expected rate of return for the investment given its risk profile.

Net Present Value

Net present value can be calculated by summing up periodic net cash flows multiplied by the respective present value factor.

To ascertain the valuation range of the Niobium Business and the Phosphates Business based on DCF, we have performed the following:

- reviewed the operating, environmental and social practices extract from CPR;
- conducted comparison of historical versus proposed production plan, product quality and quantity, operating expenses and capex extracted from CPR; and
- reviewed the proposed production plan, product quality and quantity, operating expenses and capex.

Based on the above, we are of the view that, the financial projections (i.e. operating expenses and capex), production forecasts (i.e. production plan, product quality and quantity), operating, environmental and social practices for both the Niobium Business and Phosphates Business are reasonable.

10.2 Market Multiples (For Phosphates Business)

For Market Multiples, we have considered the following Market Multiples:

- Enterprise Value/EBITDA ("**EV/EBITDA**");
- EV/EBIT ("**EV/EBIT**"); and
- Price/Earnings ("**P/E**").

EV/EBITDA and EV/EBIT

The EV/EBITDA multiple is the EV for each comparable divided by its corresponding EBITDA. Similarly, the EV/EBIT multiple is the EV for each comparable divided by its corresponding EBIT. The median of the EV/EBITDA multiples or EV/EBIT multiples from the comparables is applied to the subject business. Other adjustments are then made to reflect differences between the comparables and the subject company, such as lack of marketability, length of establishment, quality of earnings, etc.

P/E Multiples

The P/E Multiple for each comparable company is found by dividing the Share Price by the trailing twelve months earnings per share. The median of the P/E multiples from the comparables is then applied to the subject business. Other adjustments are then made to reflect the material differences between the comparables and the subject business, such as lack of marketability, length of establishment, quality of earnings, etc.

11. VALUATION OF NIOBIUM BUSINESS

11.1 Income Approach – DCF

Based on our findings and analysis presented in previous sections, we have adopted the following key parameters for the valuation of Niobium Business.

11.1.1 Cash inflows

Prices of niobium

According to the Management and CPR, revenue was generated from the sale of ferroniobium to various markets such as Europe (48%), US (15%), China (13%), South Korea (12%) and Japan (12%) in FY2015. Revenue is derived from sales of ferroniobium, where niobium is priced on US$ per kg of Nb (i.e. ferroniobium is converted to niobium content using a 65% conversion factor) with pricing mainly a function of market conditions and customer type. For the financial projections from FY2016 to FY2044, niobium prices are based on historical data from Management of

CMOC and real 2015 price forecasts prepared by Roskill Consulting Group for similar characteristics as that produced by the Niobium Business escalated with the IMF's published forecast US inflation rates as at the valuation date, are as follows:

Year	(Real 2015 US$/kg)*	IMF US inflation rate for Revenue**	(Nominal US$/kg)
HY2016	33.0	NA	33.0
FY2017	35.0	1.54%	35.5
FY2018	36.4	2.37%	38.2
FY2019	36.5	2.49%	39.2
FY2020	36.6	2.34%	40.2
FY2021	36.8	2.16%	41.3
FY2022	36.9	3.00%	42.7
FY2023	37.1	3.00%	44.2

Source: Roskill Consulting Group and IMF***

Quantity of ferroniobium

The CPR estimates the amount of ferroniobium to be produced for the financial period 1st July 2016 to 31st December 2016 ("**FP2016**") to be approximately 7.9 ktpa. For FY2017 and FY2018, the amount of ferroniobium to be produced is estimated to be 13.1 ktpa and 10.7 ktpa respectively based on the CPR. From FY2019 to FY2044, the estimated production quantity of ferroniobium is forecast to range from 2.5 ktpa to 15.1 ktpa. As such, during the whole projected production period, 243.7 ktpa of ferroniobium is expected to be extracted from 35.0 million tonnes of Ore Reserves and 38.9 million tonnes of Measured and Indicated Mineral Resources.

11.1.2 Cash outflows

Operating Costs

During LOM, the expected operating cost is based on the average operating cost adopted from the CPR. Then the operating costs are escalated with IMF's published forecast US inflation rate. Due to the commercially sensitive nature of the information, we do not enclose the details in this report. However, we have reviewed and conducted a comparison of historical versus proposed operating cost extracted from CPR. We are of the opinion that the proposed operating cost is reasonable. Please reference to the CPR for further details.

Capital Cost

For FP2016 to FY 2044, the forecast annual capital costs (mainly for sustaining working capital, purchase of fixed assets, re-alignment of roads and land compensation) have been provided to us by Management and CP respectively. We have reviewed and conducted a comparison of historical versus proposed capital cost extracted from CPR. We are of the opinion that the proposed capital cost is reasonable. For the period commencing from FY2016, capital costs are escalated with IMF's published forecast US inflation rate. Due to the commercially sensitive nature of the information, we have presented the average capital costs for the projected period as follows:

Average	Unit	FP2016–FY2020	FY2021–FY2025	FY2026–FY2035	FY2036–FY2045
CAPEX	US$'000	29,510	18,576	24,285	32,090

Source: CPR and IMF

11.1.3 Discount rate

To discount the future cash flows to their present value, we have used an annual discount rate of 15.0% for the Niobium Business. The discount rate reflects the required rate of return on the investment and is based on its WACC. Please refer to Appendix 3 for details of computation of the discount rate.

11.1.4 Net Present Value of Cash Flows (NPV)

With cash flows multiplied by the present value factor for each period, we can derive the present value of the cash flow for each year as at the Valuation Date. The NPV is determined by summation of all present values during the projection period plus the present value of the annuity to represent cash flow from the final projection year through to the end of mine life.

11.1.5 Valuation Range

We have set the upper and lower limits of the valuation range at 1.5% higher, and 1.5% lower against the WACC. The valuation range for Niobium Business is set out below:

US$	**Low**	**Most Likely Outcome**	**High**
Niobium Business	660.5 million	715.5 million	780.0 million

11.1.6 Scenario/Sensitivity Analyses

Sensitivity analyses have been performed to illustrate the NPV of Niobium Business under various scenarios. The sensitivity analyses are meant for illustration purposes only and do not necessarily imply that the NPV of the Niobium Business could be achieved as stated below. The parameters that are considered for the sensitivity analyses are:

- changes to the discount rate(s);
- changes in niobium prices;
- changes in production volumes;
- changes in operating costs; and
- changes in capital costs.

Discount rate

Shown below is the sensitivity analysis for a 5% increase or decrease in discount rates with other parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
-5%	982.3 million
Most Likely Outcome	715.5 million
+5%	559.5 million

Niobium prices

Shown below is the sensitivity analysis for a 15% increase or decrease in niobium prices with the remaining parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
+15%	957.0 million
Most Likely Outcome	715.5 million
-15%	538.3 million

Production volumes

Shown below is the sensitivity analysis for a 15% increase or decrease in the targeted production volumes with other parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
+15%	828.4 million
Most Likely Outcome	715.5 million
-15%	602.7 million

Operating costs

Shown below is the sensitivity analysis for a 15% increase or decrease in the operating costs (excluding depreciation and amortisation) with the other parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
-15%	619.0 million
Most Likely Outcome	715.5 million
+15%	812.0 million

Capital cost

Shown below is the sensitivity analysis for a 15% increase or decrease in the capital costs with the other parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
-15%	745.4 million
Most Likely Outcome	715.5 million
+15%	685.6 million

Concurrent effects of the parameters

Shown below is the sensitivity analysis for the total effects of all the parameters moving together towards the directions which result in the highest value and lowest value, respectively.

Sensitivity Analysis	**Highest value**	**Lowest value**
Discount rate (-/+5%)	10%	20%
Price (+/-15%)	115%	85%
Production (+/-15%)	115%	85%
Operating cost (-/+15%)	85%	115%
Capital cost (-/+15%)	85%	115%
Value		
Value of Niobium Business (100%)	US$1.64 billion	US$0.26 billion

Scenario Analysis

We have also considered the valuation of the Niobium Business based on the extraction of the Inferred Mineral Resources. We note that the inclusion of the Inferred Mineral Resources in the valuation is not permitted under Chapter 18. Such scenario is considered as the best case scenario which the Niobium Business is able to achieve.

	Best-case Scenario value *(US$ million)*		
US$	**Low**	**Mid-point**	**High**
Value of the Niobium Business	674.1 million	740.3 million	822.3 million

Concurrent effects of the parameters

Further, shown below is the sensitivity analysis for the total effects of all the parameters moving together towards the directions which result in highest value and lowest value, respectively.

Sensitivity Analysis	**Highest value**	**Lowest value**
Discount rate (-/+5%)	10%	20%
Price (+/-15%)	115%	85%
Production (+/-15%)	115%	85%
Operating cost (-/+15%)	85%	115%
Capital cost (-/+15%)	85%	115%
Value *(in '000 US$)*		
Value of Oxide Operation (100%)	1.90 billion	0.25 billion

11.2 Most Likely Outcome

For purposes stated herein and subject to the limitations and assumptions set out in this report, the NPV of Niobium Business as at Valuation Date is in the range of US$660.5 million to US$780.0 million. The most likely outcome of Niobium Business is US$715.5 million.

Further details of the valuation of Niobium Business can be found in the Appendix 5.

12. VALUATION OF PHOSPHATES BUSINESS

12.1 Income approach – DCF

Based on our findings and conclusions presented in previous sections, we have adopted the following key parameters for the valuation of the Phosphates Business.

12.1.1 Cash inflows

Prices of Fertilizer Products

According to Management, revenue will be generated from the sale of fertilizer products and non-fertilizer products such as DCP, phosphoric acid and sulphuric acid to customers domestically. For the financial projection from the Valuation Date to FY2052, prices for fertilizer products are as below:

Prices of MAP 11-52-00

MAP 11-52-00 prices are based on real price forecasts prepared by Argus Media and escalated with the IMF's published forecast US inflation rates which, as at the valuation date, are as follows:

Year	(Real US/t)*	US Inflation Rate**	(Nominal US/t)
HY2016	384	Not applicable	384
FY2017	448	1.54%	455
FY2018	437	2.37%	454
FY2019	477	2.49%	508
FY2020	503	2.34%	548
FY2021	535	2.16%	596
FY2022	541	3.00%	621
FY2023	547	3.00%	646

Source: Argus Media and IMF***

Prices of Other Products

Prices for other fertilizer products are based on the historical average selling price. Prices from FY2017 to FY2052 are escalated with the IMF's published forecast US inflation rates as at the valuation date. We set out below the historical average price used for FY2016. In view of the confidentiality policy of the Company, average selling prices for fertilizer products are grouped by high analysis fertilizer products and low analysis products.

Prices (US$/t)

Catalão		**Cubatão**	
High Analysis Fertilizer*	402	Low Analysis Fertilizer	222
Low Analysis Fertilizer	214	Others	671
Other	528		

Note:

* Excluding MAP11-52-00.

Source: Management

Quantity of Fertilizer Products

We have obtained the average production for each fertilizer product from Management and CP. We have reviewed and used this information in our valuation. According to the CPR, the average forecast production volume is likely to represent long term averages over the life of the phosphate project. In view of the confidentiality policy of the Company, average forecast production for fertilizer products are grouped by high analysis fertilizer products and low analysis products as shown in the table below:

(t product)

Catalão		**Cubatão**	
High Analysis Fertilizer*	296,000	High Analysis Fertilizer*	62,000
Low Analysis Fertilizer	620,000	Low Analysis Fertilizer	541,000
		Phosphoric	102,000
		Sulphuric	–

* Includes DCP, it is noted that DCP is not regarded as a high analysis product however has been included in this aggregate form.

Source: CPR

12.1.2 Cash outflows

Operating Costs

During LOM, the expected operating cost is based on the average operating cost adopted from the CPR. Then the operating costs are escalated with IMF's published forecast US inflation rate. Due to the commercially sensitive nature of the information, we do not enclose the details in this report. However, we have reviewed and conducted a comparison of historical versus proposed operating cost extracted from CPR. We are of the opinion that the proposed operating cost is reasonable. Please reference to the CPR for further details.

Capital Cost

For FP2016 to FY 2052, the forecast annual capital costs (mainly for sustaining working capital for Catalão and Cubatão, closure costs and other costs) have been provided to us by Management and CP respectively. We have reviewed and conducted a comparison of historical versus proposed capital cost extracted from CPR. We are of the opinion that the proposed capital cost is reasonable. We have reviewed the information provided. For the period commencing from FY2016, capital costs is escalated with IMF's published forecast US inflation rate. Due to the commercially sensitive nature of the information, we have presented the average capital costs for the projected period as follows:

Average	Unit	FP 2016–FY2020	FY2021–FY2025	FY2026–FY2035	FY2036–FY2045	FY2046–FY2052
CAPEX	US$'000	37,726	55,147	57,680	68,263	110,780

Source: CPR and IMF

12.1.3 Discount rate

To discount the future cash flows to their present value, we have used an annual discount rate of 13.0% for the Phosphates Business. The discount rate reflects the required rate of return of the investment based on its WACC. Please refer to Appendix 3 for details of computation of the discount rate.

12.1.4 Net Present Value of Cash Flows (NPV)

With cash flows multiplied by the present value factor for each period, we can derive the present value of the cash flow for each year as at the Valuation Date. The NPV is determined by summation of all present values during the projection period plus the present value of the annuity to represent cash flow from the final projection year through to the end of mine life.

12.1.5 Valuation Range

We have set the upper and lower limits of the valuation range at 1.5% higher, and 1.5% lower against the WACC. The valuation range for the Phosphates Business is set out below:

US$	Low	Most Likely Outcome	High
Phosphates Business	763.3 million	876.9 million	1,030.6 million

12.1.6 Scenario/Sensitivity Analysis

Sensitivity analyses have been performed to illustrate the NPV of the Phosphates Business under various scenarios. The sensitivity analyses are meant for illustration purposes and do not necessarily imply that the NPV of the Phosphates Business could be as stated below. The parameters that are being considered for the sensitivity analyses are:

- changes to the discount rate(s);
- changes in fertilizer products prices;
- changes in production volumes;
- changes in operating costs; and
- changes in capital costs.

Discount rate

Shown below is the sensitivity analysis for a 5% increase or decrease in discount rates with other parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
-5%	1,683.3 million
Most Likely Outcome	876.9 million
+5%	591.1 million

Fertilizer product prices

Shown below is the sensitivity analysis for a 15% increase or decrease in fertilizer products prices with the remaining parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
+15%	1,632.5 million
Most Likely	876.9 million
-15%	118.3 million

Production volumes

Shown below is the sensitivity analysis for a 15% increase or decrease in the targeted production volumes with other parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
+15%	1,121.0 million
Most Likely Outcome	876.9 million
-15%	632.8 million

Operating costs

Shown below is the sensitivity analysis for a 15% increase or decrease in the operating costs (excluding depreciation and amortisation) with the other parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
-15%	1,391.4 million
Most Likely Outcome	876.9 million
+15%	362.4 million

Capital cost

Shown below is the sensitivity analysis for a 15% increase or decrease in the capital costs with the other parameters and assumptions remaining unchanged. The valuation for each scenario is computed and presented in the following table:

	US$
-15%	947.3 million
Most Likely Outcome	876.9 million
+15%	806.4 million

Concurrent effects of the parameters

Shown below is the sensitivity analysis for the total effects of all the parameters moving together towards the directions which result in the highest value and lowest value, respectively.

Sensitivity Analysis	**Highest value**	**Lowest value**
Discount rate (-/+5%)	8%	18%
Price (+/-15%)	115%	85%
Production (+/-15%)	115%	85%
Operating cost (-/+15%)	85%	115%
Capital cost (-/+15%)	85%	115%
Value		
Value of Phosphates Business (100%)	US$5.11 billion	US$-0.33 billion

Scenario Analysis

We have also considered the valuation of the Phosphates Mine based on the extraction of the Inferred Mineral Resources. We note that the inclusion of the Inferred Mineral Resources in the valuation is not permitted under Chapter 18. Such scenario analysis is considered as a best case scenario which the Phosphates Mine is able to achieve and it is a form of illustration which does not necessarily imply that the Technical Value of the Project are as stated below:

	Best-case Scenario value (US$ million)		
US$	**Low**	**Mid-point**	**High**
Value of the Phosphates Business	764.8 million	880.3 million	1,038.1 million

Concurrent effects of the parameters

Shown below is the sensitivity analysis for the total effects of all the parameters moving together towards the directions which result in highest value and lowest value, respectively.

Sensitivity Analysis	**Highest value**	**Lowest value**
Discount rate (-/+5%)	8%	18%
Price (+/-15%)	115%	85%
Production (+/-15%)	115%	85%
Operating cost (-/+15%)	85%	115%
Capital cost (-/+15%)	85%	115%
Value		
Value of Phosphates Business (100%)	US$5.32 billion	US$-0.33 billion

12.2 Market Multiples Methods – Phosphates Business

As mentioned in section 10.2 of the Report, the Market Multiples that are considered are EV/EBITDA, EV/EBIT and P/E. The median of respective multiples for the comparables selected after removing outliers have been used as reference. We have applied Marketability Discount of 0%. The challenge in applying the market multiple methods is to find truly comparable listed companies so that the average multiple applied to the subject company accurately represent its future prospects. In this valuation exercise, the listed comparables we found are more diversified in terms of products offered and markets reached. Some comparables selected are bigger size in term of revenue as compared to Phosphates Business. Generally, adjustment needs to be made to the multiples based on differences between Comparables and the target business. We have tried to adjust for these differences. However, it is difficult to accurately adjust for numerous parameters in a single multiple factor.

In addition to the challenge faced in obtaining truly comparable listed companies, the market multiples methodology tends to be influenced by temporary market condition or non-fundamental factors. The Market Multiples method is a less appropriate used methodology for valuations of operating mining asset. This method assumes an indefinite life for the asset being valued. For operating mining asset, DCF method can incorporate the life, timing and capex aspects more accurately than Market Multiples method.

For the purpose of the valuation of the Phosphate Business, we have adopted the results of the DCF.

12.3 Most Likely Outcome

For purposes stated herein and subject to the limitations and assumptions set out in this report, based on the DCF method, the NPV of the Phosphates Business as at Valuation Date is in the range of US$763.3 million to US$1,030.6 million. The most likely outcome of Phosphates Business is approximately US$876.9 million.

Further details of the valuation of Phosphates Business can be found in the Appendix 5.

13. STATEMENT OF VALUE

13.1 Technical Value

For purposes stated herein and subject to the limitations and assumptions set out in this report, the Technical Value of the Project as at 30th June 2016 is in the approximate range of US$1,400 million to US$1,800 million as shown in the table below. The most likely outcome of the Project is approximately US$1,600 million.

US$	Low	Most Likely Outcome	High
Value of the Niobium Business	660.5 million	715.5 million	780.0 million
Value of the Phosphates Business	763.3 million	876.9 million	1,030.6 million
Value of the Project	**1,400 million**	**1,600 million**	**1,800 million**

Note: Numbers in the table may not add due to rounding

13.2 Technical Value versus Market Value

The Market Value comprises a technical value plus or minus, in some cases, a premium or discount to account for such factors as market, strategic considerations or special circumstances. A marketability discount is usually required to convert Technical Value to Market Value. According to the International Glossary of Business Valuation Terms, marketability means the relative ease and promptness with which a security or commodity may be sold when desired, at a representative current price, without material concession in price merely because of the necessity of the sale. Investors will price in a discount for the additional costs and risks of liquidation when valuing equity in privately held companies. For this exercise, we are of the opinion that no marketability discount is applicable for the purpose of this valuation. This is an operating mine that has been in operation for many years and has been profitable. We believe that this asset could be listed with relative ease by itself in most markets in the world and hence we concluded that no marketability discount needs to be allowed.

Based on the above mentioned, we are of the view that there is no need to apply any market adjustment to the Technical Value of this Project. Hence, the Market Value of the Project is the same as its Technical Value.

14. KEY RISK FACTORS

The Project is subject to risk relating to its business activities and also risks relating to the industry. Individually, or in combination, these might adversely affect the future operating and financial performance of the Company. This section describes some, but not all, of the risks which may be associated with the Project.

14.1 Specific Risk Factors

14.1.1 Mineral development and mining

Potential investors should understand that mineral development and mining activities are unpredictable in nature. The success of any mineral development and mining depends on various factors including, but not limited to (i) whether the mining of such mineral is economically viable; (ii) whether appropriate mining and processing facilities can be economically constructed; and (iii) whether necessary governmental permits, licences and consents can be obtained.

The operating cost and capital expenditure of Project described in the above section are based on certain estimates and assumptions with respect to the mining method used as at Valuation Date. These estimates and assumptions are subject to significant uncertainties and, accordingly, the actual costs may materially differ from these estimates and assumptions. Accordingly, no assurance can be given that the cost estimates and the underlying assumptions will be realised in practice.

14.1.2 Fluctuation in niobium prices and/or phosphate fertilizer prices

The profitability and the value of the Niobium Business and Phosphates Business reserves depend on the prices that the Project receives for its final product. The contract prices it may receive in the future for niobium and phosphate fertilizer depend upon factors beyond our control, including the following:

- the supply and demand of ferroniobium and phosphate fertilizer;
- the quantity and quality of ferroniobium and phosphate fertilizer available from competitors;

- adverse weather, climatic or other natural conditions, including natural disasters;
- action taken by major ferroniobium and phosphate fertilizer producing and consuming countries;
- domestic and foreign government regulations;
- domestic and foreign economic conditions, including economic slowdowns; and
- the proximity to, capacity of and cost of transportation and port facilities.

As such, a substantial or extended decline in the prices it receives for its future sales contracts could materially and adversely affect the Project by decreasing its profitability and the value of its reserves.

14.1.3 Funding

While the Project seems to have sufficient funds to meet its capital requirements for its proposed exploration program and other expenses, it may need additional funds, or may seek to develop opportunities of a kind that will require it to raise additional capital from equity or debt sources. It is difficult to predict the level of funding required with accuracy. Any additional equity financing may be dilutive and debt financing, if available, may involve restrictions on financing and operating activities. There can be no assurance that the Project will be able to raise such financing on acceptable terms or at all. If the Project is unable to obtain such additional financing, it may be required to reduce the scope of its anticipated activities, which could adversely affect its business, financial condition and operating results.

14.1.4 Performance of Mining Contractors

All mining operations are undertaken by contractors via conventional truck and shovel open pit methods, and during the LOM, ore is planned to be sourced from two separate open pits. The Company relies on third party contractors for the mining and process of its Niobium and Phosphate ore. There is also a very strong reliance on contractors for the planning and execution of large maintenance works, performance of contractors could be crucial to the success of maintenance programs. There is a risk that contractors (including technical personnel) may under-perform and this may affect the progress of the Project and in turn could have a material adverse effect on the operation, business and financial condition of the Company.

14.1.5 Disruption to Business Operations

The Project is also subject to a range of operational risks. Such operational risks include equipment failures, IT system failures, external services failure (including energy or water supply), industrial action or disputes and natural disasters. While the Company will endeavour to take appropriate action to mitigate these operational risks or to insure against them, one or more of these risks may have a material adverse impact on the performance of the Project.

14.1.6 Occupational Health and Safety

Given the Project mining activities, it will face the risk of workplace injuries which may result in workers' compensation claims, related common law claims and potential occupational health and safety prosecutions. The Company has, and intends to maintain, a range of workplace practices, procedures and policies which will seek to provide a safe and healthy working environment for its employees, visitors and the community.

While the Company intends to maintain appropriate safeguards in its mining activities, serious injury to an employee or another person could occur and give rise to liability under occupational health and safety laws and regulations and also under the general law.

14.1.7 Provision of uninterrupted supplies of water and fuel

Water and diesel supplies are important part of the mining operations. Currently, the water supplies are from various sources including local wells, Chapadão phosphates open-pit sump and Buraco phosphate tailings dam. Furnaces and boilers at Catalão Fertilizer plant are woodchip fired. There can be no assurance that supply of water and fuel will not be disrupted in the future. Any disruption of the water and fuel supplies will adversely affect the production, cash flow and profitability.

14.2 Environmental, Other Regulations and Legal Risk

14.2.1 Extensive environmental regulations

The mining industry is subjected to increasingly strict regulation by federal, state and local authorities with respect to environmental matters such as:

- limitations on land use;
- mine permitting and licensing requirements;
- reclamation and restoration of mining properties after mining is completed;
- management of materials generated by mining operations;
- the storage, treatment and disposal of wastes;
- remediation of contaminated soil and groundwater;
- water pollution;
- protection of human health, plant-life and wildlife, including endangered or threatened species; and
- the discharge of materials into the environment.

The costs, liabilities and requirements associated with the laws and regulations related to these and other environmental matters may be costly and time-consuming and may delay commencement or continuation of production operations. Failure to comply with these laws and regulations may result in the assessment of administrative, civil and criminal penalties, the imposition of cleanup and site restoration costs and liens, the issuance of injunctions to limit or cease operations, the suspension or revocation of permits and other enforcement measures that could have the effect of limiting production from the operations. The Project may incur material costs and liabilities resulting from claims for damages to property or injury to persons arising from our operations.

14.2.2 Mining permits

The failure to obtain and renew permits necessary for the mining operations could negatively affect the Project. Mining companies must obtain numerous permits that impose strict regulations on various environmental and operational matters in connection with Niobium and Phosphate mining. These include permits issued by various federal, state and local agencies and regulatory bodies. The permitting rules, and the interpretations of these rules, are complex, change frequently and are often subject to discretionary interpretations by the regulators, all of which may make compliance more difficult or impractical, and may possibly preclude the continuance of ongoing operations or the development of future mining operations. The public, including non-governmental organizations, anti-mining groups and individuals, have certain statutory rights to comment upon and submit objections to requested permits and environmental impact statements prepared in connection with applicable regulatory processes, and otherwise engage in the permitting process, including bringing citizens' lawsuits to challenge the issuance of permits, the validity of environmental impact statements or performance of mining activities. Accordingly, required permits may not be issued or renewed in a timely fashion or at all, or permits issued or renewed may be conditioned in a manner that may restrict the ability to efficiently and economically conduct its mining activities, any of which would materially reduce its production, cash flow and profitability.

14.2.3 Changes in the legal and regulatory environment

The conduct of the Project is subject to various Brazilian laws and regulations. These laws and regulations may change, sometimes dramatically, as a result of political, economic or social events or in response to significant events. Certain recent developments may cause changes in the legal and regulatory environment in which the Project operates and may impact the results or increase its costs or liabilities. Such legal and regulatory environment changes may include changes in; the processes for obtaining or renewing permits; costs associated with providing healthcare benefits to employees; health and safety standards; accounting standards; taxation requirements and competition laws.

14.3 General Risk Factors

14.3.1 Economic Conditions

The performance of the Project may be influenced by the general condition of Brazil and global economy. Changes in interest rates, employment rates, exchange rates, inflation, consumer spending, access to debt and capital markets and government fiscal, monetary and regulatory policies may affect customer's sentiment and may result in the reduction of demand for ferroniobium and phosphate fertilizer which will have an adverse effect on the Project's financial performance and growth.

Thus, the Project is and will continue to be, dependent on the economic growth, foreign exchange movement, political stability, social conditions of Brazil and any other countries in which it intend to operate in the future. Its growth and expansion plans may also be undermined by any labour disputes, political unrest, economic or financial crisis or disturbances occurring in Brazil and any of such countries.

15. POTENTIAL UPSIDE

Our assessed Market Value of the Project represents the most likely value based on VALMIN Code. Our sensitivity analyses show both possible upside and downside outcome. In addition to these are structural synergistic values which we have not modelled.

15.1 Strategic Benefit

The Niobium Business complements the Company's existing molybdenum and tungsten operations, enhancing its leadership in special alloys. Niobium and molybdenum are both used in the production of specialty steel. Adding the Niobium Business would broaden the Company's product offering to downstream steel mill customers. Given a similar target client base, the Board expects to extract synergies in potential cross selling between the Company and the Niobium Business' customer networks, marketing and after-sales technical support. The Management also expects that the Niobium Business could leverage the Company's current network of value-added steel customers to support the Niobium Business to continue its client base optimization by shifting toward direct sales. Furthermore, with its substantial marketing capabilities, customer relationships and market leading position in China, the Company could enhance the Niobium Business' potential sales expansion in China. Similarly, the Company could leverage the Niobium Business' sales network and customers based in Europe and other western countries towards the Company's molybdenum business expansion into overseas markets.

16. EXCLUSIONS AND LIMITATION OF LIABILITY

Our work has been performed in accordance with and subject to our Standard Conditions of Engagement, a copy of which has been previously provided. For your reference, we highlight some of the more pertinent points:

- we have used due skill and care in the provision of the services set out in this report;

- we shall not under any circumstances be liable for damages, or for losses, that are not a direct result of breach of contract, or negligence, on our part in respect of services provided in connection with, or arising out of, the engagement set out in this letter (or any variation or addition thereto), or for any consequential losses or loss of profits of whatsoever nature. In any event, the liability of Censere, its related companies, partners, directors and staff (whether in contract, negligence or otherwise) shall in no circumstances exceed the fees paid specifically for the work in question which allegedly entailed a breach of contract or negligence on our part;

- in no event shall Censere, its related companies, partners, directors and staff be liable for any loss, damage, cost or expense arising in any form or in connection with the fraudulent acts or omissions, or any misrepresentations or any default on the part of the directors, employees or agents of the management of the Company and its subsidiaries;

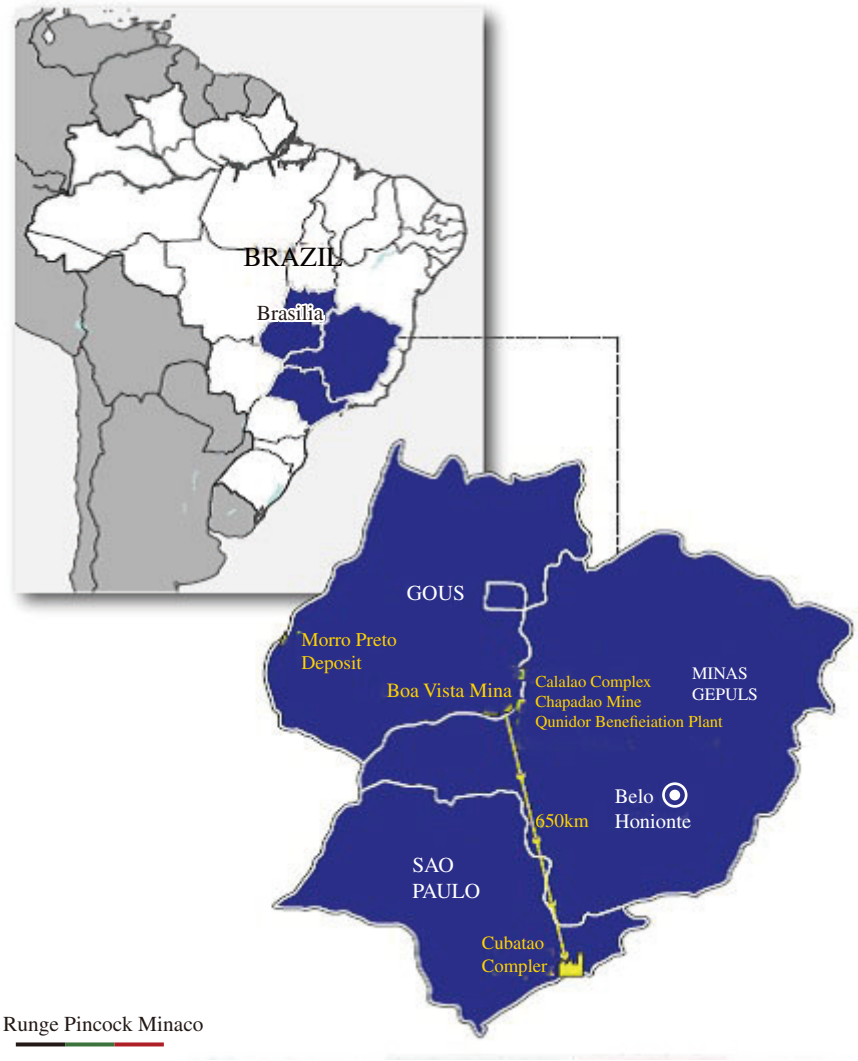
- without derogating from the aforesaid provisions, we shall not under any circumstances whatsoever, be liable to any third party, whether or not they are shown a copy of any work that we have done pursuant to the terms of our engagement, and whether or not we have consented to such work being shown to them, save and except where we specifically agreed in writing to accept such liability;

- except as a result of our own negligence or wilful default, in the event that we find ourselves subject to a claim or incur legal costs from another party as a result of false or misrepresented information provided by Management in connection with this engagement, any claim established against us and the cost we necessarily incur in defending it would form part of the expenses we would look to recover from the management of the Company.

17. APPENDICES

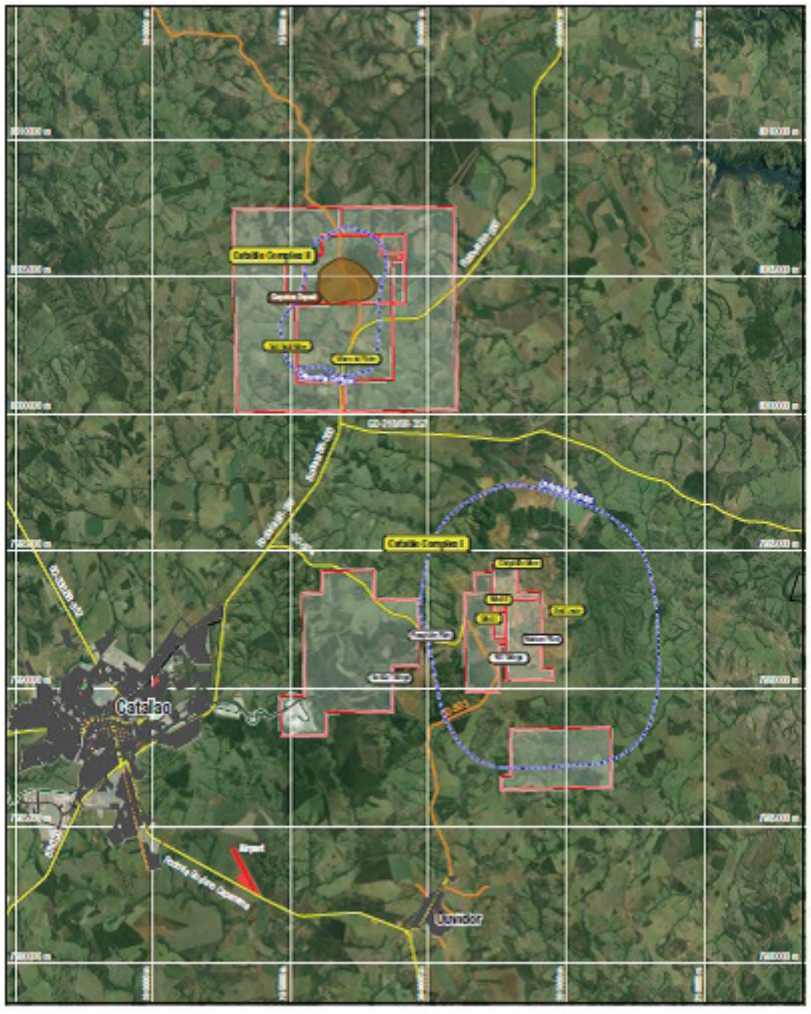
Appendix 1 – Map

Niobium Business and Phosphates Business



Source: CPR

Niobium Business and Phosphates Business



Source: CPR

Appendix 2 – Photographs

Niobium Business

Boa Vista Mine

Boa Vista Mine

Source: Censere

Niobium Business

BV Processing Plant

BVFR Processing Plant

Source: Censere

Niobium Business

BV Mine Crusher and scalping (induding. scalped waste)

BVFR Stacker/Reclaimer area

Source: Censere

Phosphates Business

Chapadao Mine

Finish Product – Catalão

Source: Censere

Phosphates Business

Cubatão Chemical Plant

Cubatão Chemical Plant

Source: Censere

Phosphates Business

Sulphur stockpile – Catalão

Catalão Phosphoric Acid Plant

Source: Censere

Appendix 3 – Derivation of Discount Rate

The income approach requires the application of an appropriate discount rate that reflects the inherent risks relating to the cash flows. The discount rate for future Free Cash Flows to the Project is the return on investments required by investors.

Weighted Average Cost of Capital (WACC)

WACC is the minimum acceptable return on investments required by lenders and shareholders. It is the weighted cost of debt and equity funded capital and is the appropriate rate to discount the free cash flows to the Project. The formula for calculating WACC is:

$$WACC = K_e * W_e + K_d * (1 - t) * W_d$$

where:
K_e = Cost of equity
K_d = Cost of debt
W_e = Equity weight (value of equity divided by invested capital)
W_d = Debt weight (value of debt divided by invested capital)
t = Effective tax rate

After taking into consideration the exposure of the Project to both local and global risk, we have assigned a 50/50 weight on Brazil WACC and US WACC to determine the WACC used in valuing the Project. Detailed information on WACC computation is as below:

Cost of Equity

The return on equity is the minimum acceptable return on investment required by shareholders. The Capital asset pricing model ("**CAPM**") is a model which indicates what should be the expected or required rate of return on risky assets. CAPM characterizes the relationship between a common stock's expected return and risk as:

$$K_e = R_f + \beta [R_x - R_f] + \varepsilon$$

where
K_e = Cost of equity
R_f = Risk-free rate of return
β = Beta on firm that measures the co-movement of that firm's returns with those of the overall market
R_x = Expected return of the overall market
ε = Epsilon, a measure of project or company specific risk which cannot be quantified directly

Derived cost of equity for Niobium Business and Phosphates Business are as below:

Niobium Business:

Cost of Equity	**Ref:**	**Brazil**	**US**
Risk Free Rate	a	5.07%	1.48%
Market Risk Premium	b	9.40%	6.00%
Average Unlevered Beta	c	0.90	0.90
Relevered Beta	d	0.93	0.93
Estimated Return of Equity	e = a+d*b	13.83%	7.07%
Add: Epsilon	f	5.00%	5.00%
Cost of Equity		18.83%	12.07%
	Weightage	50.00%	50.00%
		9.41%	6.03%
	Cost of Equity	**15.45%**	

Remarks:

a: Reference to one 10-year sovereign bond of Brazil and US

b: Damodaran Brazil and US equity risk premium

c: Average of unlevered betas from comparables

d: Management expects the Niobium Business will be operated on a industrial average debt to equity ratio basis

f: Epsilon is a measure of company specific risk, i.e. start up premium, operation premium, risk of modifying factors to convert from Resources to Reserves and quality of earnings discount associated with the Niobium Mine which cannot be quantified directly

Phosphates Business:

Cost of Equity	**Ref**	**Brazil**	**US**
Risk Free Rate	a	5.07%	1.48%
Market Risk Premium	b	9.40%	6.00%
Average Unlevered Beta	c	0.83	0.83
Relevered Beta	d	1.03	1.03
Estimated Return of Equity	e =a+d*b	14.7%	7.7%
Add: Epsilon	f	5%	5%
Cost of Equity	g =e +f	19.74%	12.65%
	Weightage	50.0%	50.0%
		9.9%	6.3%
	Cost of Equity	16.2%	

Notes:

a: Based on the US and Brazil risk free rate:10-year reference yield as at Valuation Date respectively (Source: Bloomberg)

b: The US and Brazil market premium respectively（Source: Damodaran）

c: Average of Unlevered Betas

d: Relevered beta from comparable companies debt/equity ratio and respective corporate tax rate

f: Epsilon is a measure of company specific risk, i.e. start up premium, operation premium, risk associated with the modifying factors to convert Resources to Reserves and quality of earnings discount associated with the Phosphate Business which cannot be quantified directly

Beta

Beta is derived by taking the unlevered betas of the comparable listed companies and then re-levering by the optimal debt-equity ratio and the tax rate of the Project. Please refer to Appendix 4 for a description of the comparable companies. The comparable company beta factors are as follows:

Niobium Business

	Comparable Listed Companies	Equity Ratio	Loan Ratio	Cost of Debt before Tax	1-Tax Rate	Cost of Debt After Tax
		%	%	%	%	%
1	NioCorp Developments Ltd	94%	6%	2.62%	74%	1.93%
2	Alkane Resources Ltd	100%	0%	0.00%	70%	0.00%
3	Avalon Advanced Materials Inc	100%	0%	0.00%	74%	0.00%
4	Commerce Resources Corp	100%	0%	0.00%	74%	0.00%
5	Critical Elements Corp	100%	0%	0.00%	74%	0.00%
6	Mineral Resources Ltd	87%	13%	3.93%	66%	2.59%
7	Xiamen Tungsten Co Ltd	83%	17%	2.96%	100%	2.96%
8	Lynas Corp Ltd	38%	62%	3.96%	100%	3.96%
9	China Minmetals Rare Earth Co Ltd	100%	0%	0.00%	100%	0.00%
10	China Northern Rare Earth Group High-Tech Co Ltd	94%	6%	0.83%	100%	0.83%
11	Merafe Resources Ltd	74%	26%	8.47%	100%	8.47%
12	Cia Ferro Ligas da Bahia – FERBASA	97%	3%	14.76%	100%	14.76%
	Average	0.93	0.07	3.13%	86%	2.96%

Expected Capital Structure (excluding outliers)	95%	5%

	Comparable Listed Companies	30-Jun-16 Beta Levered	Market D (%)/E(%) Ratio	Tax Rate	30-Jun-16 Beta Unlevered
1	NioCorp Developments Ltd	0.91	7%	27%	0.87
2	Alkane Resources Ltd	0.86	7%	30%	0.82
3	Avalon Advanced Materials Inc	1.26	0%	27%	1.26
4	Commerce Resources Corp	1.34	0%	27%	1.34
5	Critical Elements Corp	1.07	0%	27%	1.07
6	Mineral Resources Ltd	1.54	16%	30%	1.39
7	Xiamen Tungsten Co Ltd	1.12	21%	25%	0.96
8	Lynas Corp Ltd	1.16	166%	24%	0.51
9	China Minmetals Rare Earth Co Ltd	1.22	0%	25%	1.22
10	China Northern Rare Earth Group High-Tech Co Ltd	1.09	6%	25%	1.04
11	Merafe Resources Ltd	1.08	35%	28%	0.86
12	Cia Ferro Ligas da Bahia - FERBASA	0.50	3%	34%	0.49
	Average	1.09	22%	27%	0.99
	Expected D/E ratio & Tax Rate (excluding outliers)		5%	34.0%	0.90

Phosphates Business

	Comparable Listed Companies	Equity Ratio	Loan Ratio	Cost of Debt before Tax	1-Tax Rate	Cost of Debt After Tax
		%	%	%	%	%
1	Agrium Inc	70.30%	29.7%	2.4%	72.4%	1.76%
2	Coromandel International Ltd	63.88%	36.1%	7.0%	67.8%	7.01%
3	FMC Corp	71.99%	28.0%	1.3%	60.0%	0.81%
4	Israel Chemicals Ltd	60.37%	39.6%	2.1%	75.8%	1.61%
5	K+S AG	69.45%	30.6%	1.3%	72.7%	0.93%
6	Mosaic Co/The	71.00%	29.0%	3.3%	60.0%	1.96%
7	Potash Corp of Saskatchewan Inc	74.56%	25.4%	3.1%	76.0%	2.35%
8	Sociedad Quimica y Minera de Chile SA	76.83%	23.2%	4.9%	72.2%	3.52%
9	Stonegate Agricom Ltd	85.56%	14.4%	1.8%	79.3%	1.46%
10	Vale SA	41.08%	58.9%	16.8%	70.0%	11.73%
11	Yara International ASA	87.23%	12.8%	1.2%	79.3%	0.95%
	Average	70.2%	29.8%	4.1%	71.4%	3.1%
	Expected Capital Structure				70%	30%

	Comparable Listed Companies	30 June 2016 Beta Levered	Market D (%)/E (%) Ratio	Tax Rate	30 June 2016 Beta Unlevered
1	Agrium Inc	1.002	42.2%	27.6%	0.77
2	Coromandel International Ltd	1.016	56.5%	32.2%	0.73
3	FMC Corp	1.112	38.9%	40.0%	0.90
4	Israel Chemicals Ltd	0.868	65.6%	24.3%	0.58
5	K+S AG	1.017	44.0%	27.4%	0.77
6	Mosaic Co/The	1.098	40.8%	40.0%	0.88
7	Potash Corp of Saskatchewan Inc	1.011	34.1%	24.0%	0.80
8	Sociedad Quimica y Minera de Chile SA	1.050	30.1%	27.8%	0.86
9	Stonegate Agricom Ltd	1.864	16.9%	26.5%	1.66
10	Vale SA	1.861	143.4%	40.0%	1.00
11	Yara International ASA	0.810	14.6%	20.8%	0.73
	Average	1.16	0.48	30.0%	0.88
	Expected D/E ratio & Tax Rate (excluding outliers)		0.43	34.0%	0.80

Epsilon

We estimate epsilon to be 5% to take into consideration company specific risk such as start-up premium, operation premium, risk of modifying factors to convert from Mineral Resources to Ore Reserves and quality of earnings discount associated with the Project which cannot be quantified directly.

Cost of Debt

Derived cost of debt for both Niobium Business and Phosphates Business are as below:

Weighted Average Cost of Capital			**Brazil**	**US**
Cost of Debt (Pre-tax)	a	8.90%	14.30%	3.50%
	Weightage		**50.0%**	**50.0%**
			7.2%	**1.8%**
	Cost of Debt (pre-tax)		**8.9%**	

Note:

a. Based on the US and Brazil prime lending rate respectively.

Derived WACC

Capital Structure

We have made reference to the Comparable Companies for estimates of the average capital structure. For Niobium Business, it consists of 95% of equity and 5% of debt. For Phosphates Business, it consists of 70% of equity and 30% of debt.

Based on the above inputs for cost of equity and cost of debt, WACC is derived as follows:

Niobium Business

$$WACC = K_e * W_e + K_d * (1 - t) * W_d$$
$$= 15.5\% * 95\% + 8.9\% * (1 - 34\%) * 5\%$$
$$= 15.0\% \text{ (rounded)}$$

Phosphates Business

$$WACC = K_e * W_e + K_d * (1 - t) * W_d$$
$$= 16.2\% * 70\% + 8.9\% * (1 - 34\%) * 30\%$$
$$= 13.0\% \text{ (rounded)}$$

Appendix 4 – Comparable Companies

Niobium Business

No.	Company	Ticker	Country	Description
1	NioCorp Developments Ltd	NB CN	Canada	NioCorp Developments Ltd. is developing the Elk Creek Carbonatite, a primary niobium deposit in the United States.
2	Alkane Resources Ltd	ALK AU	Australia	Alkane Resources Ltd. explores for and produces metals and minerals. The Company produces gold in the Wyoming I, II and III projects, and the Caloma, Peak Hill and Wellington properties in New South Wales; and zirconium, hafnium, niobium, tantalum, yttrium and rare earths at the Dubbo project in New South Wales.
3	Avalon Advanced Materials	AVL CN	Canada	Avalon Rare Metals, Inc. is a Canadian mineral development company with a primary focus on the rare metals and minerals. The Company mines a variety of metals and minerals including lithium, tin, indium, tatalum, niobium, and zirconium.
4	Commerce Resources Corp	CCE CN	Canada	Commerce Resources Corporation is an exploration and development company. The Company focuses on deposits of tantalum, niobium, and rare earth elements in Canada.
5	Critical Elements Corp	CRE CN	Canada	Critical Elements Corp is a mining exploration company. The Company searches for rare metals and rare earths, particularly tantalum, lithium, and niobium.

No.	Company	Ticker	Country	Description
6	Mineral Resources Ltd	MIN AU	Australia	Mineral Resources Ltd. offers contract crushing services to the mining industry in Australia. The Company serves gold, iron ore, tantalum, and coal companies.
7	Xiamen Tungsten Co Ltd	600549 CH	China	Xiamen Tungsten Co., Ltd. smelts and processes tungsten products. The Company's products include ammonium paratungstate, blue tungsten oxide, yellow tungsten oxide, tungsten powder, and tungsten alloy products. Xiamen Tungsten also produces battery and operates in real estate development and management.
8	Lynas Corp Ltd	LYC AU	Malaysia	Lynas Corporation Limited explores and mines for rare earth minerals such as cerium and neodymium.
9	China Minmetals Rare Earth Co Ltd	000831 CH	China	China Minmetals Rare Earth Co Ltd engages in south ionic rare earth separation and processing. The Company mainly focuses on the production and distribution of rare earth oxide, rare earth metal, and highly processed products of rare earth, as well as the research and consult service of rare earth techniques.

No.	Company	Ticker	Country	Description
10	China Northern Rare Earth Group High-Tech Co Ltd	600111 CH	China	China Northern Rare Earth Group High-Tech Co. Ltd. is the consolidation of mining, smelting, separation and utilization companies in the northern region of Inner Mongolia.
11	Merafe Resources Ltd	MRF SJ	South Africa	Merafe Resources Limited is a mining and exploration company in South Africa. The Company currently mines chrome reserves. The Company also operates in the hydraulic mining props field.
12	Cia Ferro Ligas da Bahia – FERBASA	FESA4 BZ	Brazil	Cia de Ferro Ligas da Bahia – Ferbasa explores for and mines mineral deposits, and manufactures different types of iron metals. The Company explores iron deposits, mines chromium, and markets chromium products through its plant in Pojuca, Bahia.It also operates in the area of reforestation, coal mining, and environmental engineering.

Phosphates Business

No.	Company	Ticker	Description
1	Agrium Inc	AGU US	Agrium Inc. supplies nitrogen, potash and phosphate for agricultural, industrial, and specialty use. The company operates throughout the Americas while it markets its products globally.
2	Coromandel International Ltd	CRIN IN	Coromandel International Ltd. manufactures fertilizers and pesticides. The company produces both chemical and organic fertilizers, insecticides, fungicides, herbcides, and plant biostimulant.

No.	Company	Ticker	Description
3	FMC Corp	FMC US	FMC Corp operates as a diversified research company in the chemical industry. The company offers technology solutions for agricultural, industrial, and consumer markets. FMC Corp offer an array of technologies in research and development to improve delivery of medications, enhance foods and beverages, power batteries, protect crop yields, and advance textile manufacturing.
4	Israel Chemicals Ltd	ICL US	Israel Chemicals Limited, through its subsidiaries, develops, manufactures, and markets chemical and fertilizer products in Israel. The company markets its products in Israel, Europe, and the Americas. Products include bromine specialty chemicals, potash, fertilizers, and specialty performance and industrial products.
5	K+S AG	SDF GR	K+S AG manufactures and markets within the fertilizer division standard and speciality fertilizers to the agricultural and industrial industries worldwide. In its salt business, the company produces de-icing salt, food grade salt, industrial salt and salt for chemical use.
6	Mosaic Co/The	MOS US	The Mosaic company produces and distributes crop nutrients to the agricultural communities located in North America and other countries. The company's principal products include concentrated phosphates, and potash.
7	Potash Corp of Saskatchewan Inc	POT US	Potash Corporation of Saskatchewan Inc. produces potash, phosphate, and nitrogen to the agricultural and industrial industries worldwide. The company conducts operations in Canada, Chile, the United States, Brazil, and Trinidad.

No.	Company	Ticker	Description
8	Sociedad Quimicay Minera de Chile SA	SQM US	Sociedad Quimica y Minera de Chile SA produces and markets specialty fertilizers including potassium nitrate, sodium nitrate, and potassium sulfate for the agricultural industry. The company also produces industrial chemicals, iodine and lithium. SQM markets its products in over 100 countries.
9	Stonegate Agricom Ltd	ST CN	Stonegate Agricom Ltd. acquires, explores, and develops agricultural nutrient projects. The company produces phosphate mineral products to supply regional and international markets for the use in creating fertilizers. Stonegate Agricom offers its products to the agricultural industry.
10	Vale SA	VALE US	Vale SA produces and sells iron ore, pellets, manganese, alloys, gold, nickel, copper, kaolin, bauxite, alumina, aluminum, and potash. The Company is based in Brazil, where it owns and operates railroads and maritime terminals.
11	Yara International ASA	YAR NO	Yara International ASA produces, distributes, and sells nitrogen-based mineral fertilizers and related industrial products. The companyalso distributes and sells a range of phosphate and potash-based mineral fertilizers, as well as complex and specialty mineral fertilizer products.

Appendix 5 – Valuation of the Project

Due to the commercially sensitive nature of the information, we have presented the average expected FCFF for projected period as below:

Average	Unit	FP2016–FY2020	FY2021–FY2025	FY2026–FY2035	FY2036–FY2045
Expected FCFF (100%)	US$'000	72,527	127,811	79,149	85,059

Niobium Business

Discount Rate	Variance Analysis	Adjusted Discount Rate	A DCF	B PV of the terminal value at June 16	C= A + B Enterprise Value
15.0%	1.5%	16.5%	591,648	0	591,648
	0.0%	15.0%	646,640	0	646,640
	-1.5%	13.5%	711,102	0	711,102

Discount Rate	Variance Analysis	Adjusted Discount Rate	D Outstanding Debt	E= C -D Enterprise Value
15.0%	1.5%	16.5%	0	591,648
	0.0%	15.0%		646,640
	-1.5%	13.5%		711,102

Discount Rate	Variance Analysis	Adjusted Discount Rate	D Marketability Discount Rate	G = C*(1 – D) Enterprise Value
15.0%	1.5%	17%	0.0%	591,648
	0.0%	15%		646,640
	-1.5%	14%		711,102

Discount Rate	Variance Analysis	Adjusted Discount Rate		H Cash & Cash Equivalents	I = G + H Market Value as at 30 June 2016
15.0%	1.5%	17%		68,870	660,518
	0.0%	15%			715,510
	-1.5%	14%			779,972

		Market Value	
	Min	Mid-point	Max
	660,518	715,510	779,972

Phosphates Business

Average	Unit	FP2016–FY2020	FY2021–FY2025	FY2026–FY2035	FY2036–FY2045	FY2046–FY2052	Annuity Value
Expected FCFF (100%)	US$'000	62,916	72,100	121,008	229,875	421,659	210,127

Discount Rate	Variance Analysis	Adjusted Discount Rate	A DCF	B PV of the terminal value at June 16	C= A + B Enterprise Value
13.0%	1.5%	14.5%	655,289.39	11,848.82	667,138
	0%	13.0%	759,869.59	20,870.32	780,740
	-1.5%	11.5%	897,256.15	37,192.64	934,449

Discount Rate	Variance Analysis	Adjusted Discount Rate	D Outstanding Debt	E= C -D Enterprise Value – Debt
13.0%	1.5%	14.5%	0	667,138
	0%	13.0%		780,740
	-1.5%	11.5%		934,449

Discount Rate	Variance Analysis	Adjusted Discount Rate		Marketability Discount Rate (D)	NPV Adjusted for Marketability Discount (G = C*(1 – D))
13.0%	1.5%	15%		0.0%	667,138
	0%	13%			780,740
	-1.5%	12%			934,449

Discount Rate	Variance Analysis	Adjusted Discount Rate		Cash & Cash Equivalents (H)	Market Value as at 30 June 2016 (I = G + H)
13.0%	1.5%	15%		96,156	763,294
	0%	13%			876,896
	-1.5%	12%			1,030,605

	Min	Market Value Most Likely Outcome	Max
	763,294	876,896	1,030,605

All of the operations of the Niobium and Phosphates Businesses are based in Brazil and the Niobium and Phosphates Businesses are required to comply with a range of laws and regulations including exploration, exploitation, production safety, environmental protection and taxation.

We are subject to a wide range of governmental regulations in all the jurisdictions in which we operate worldwide. Set out below is a summary of the types of regulations that have the most significant impact on our operations.

REGULATION OF MINING ACTIVITIES

The legal framework for the development and use of mineral resources in Brazil was established by the Brazilian Federal Constitution, which was enacted on October 5, 1988. According to the Brazilian Constitution, all mineral resources in Brazil belong to the Federation (União). Mining companies are required to be incorporated under Brazilian law and must be domiciled within Brazil. Mining companies are also subject to various obligations under the Brazilian Constitution and the mining code, including those relating to:

- the exploitation of mineral deposits;
- health and safety;
- environmental protection and remediation; and
- pollution prevention.

In general, there are no restrictions to foreign investment in mining companies in Brazil, except for those companies that operate or hold mineral properties in the border area within 150km-wide strip of land parallel to Brazilian terrestrial borders, where the government currently requires that such properties be majority Brazilian-owned.

The National Department of Mineral Production (Departamento Nacional de Produção Mineral "**DNPM**") of Brazil's Federal Ministry of Mines and Energy is responsible for regulating and implementing the Brazilian mining code. Mineral exploration licenses and mining concessions are administered by the DNPM which also monitors exploration, mining, and mineral processing. Mineral exploration licenses are issued by DNPM and mining concessions by the Ministry of Mining and Energy. To apply for and acquire mineral rights, a company must be incorporated under Brazilian law and have its head office and administration in Brazil. The process of acquiring title to a mineral property is a phased procedure involving progressive steps as exploration and development work on a property advances. Tenure is secure as long as the titleholder meets clearly defined obligations over time, but the process of acquiring a mineral right can be lengthy.

Mining companies in Brazil may only prospect and mine mineral resources pursuant to, among others, exploration licenses (autorizações de pesquisa) or mining concessions (concessões de lavra), as granted by the DNPM and the Ministry of Mines, respectively. Brazil currently follows an open access approach to mining rights, which means that those that first apply for the exploration license have priority in receiving title to explore and – at a later stage – exploit a mining site (i.e. the first-come, first-served system).

During the period where a formal application for an exploration license (i.e. an exploration claim) has been submitted by a company for an area, but not yet granted, no exploration work is permitted.

Exploration licenses are granted for a maximum period of three years, provided that all requirements are met and the area of interest does not overlap with an existing mineral right. There is an annual fee on exploration rights ranging from $0.90 to $1.45 per hectare to be paid to the Brazilian government during the period the license is in force. Exploration licenses can be extended for a second period no longer than the initial period. The renewal is left at the DNPM's discretion. Subsequent renewals may be granted on an extraordinary basis, for example when a titleholder has been unable to access the land despite having taken all action necessary.

Surface rights in Brazil are distinct from mining rights and must be acquired separately. The land owner has no title to the sub-soil or minerals contained therein. The Brazilian mining code provides for some form of use of privately held surface rights subject to fair compensation. The holder of a mineral right is entitled to occupy the surface to conduct mining operations, including the construction of facilities required for such operations. The access to the land and reclamation of disturbed areas must be negotiated with each individual surface right holder. However, mining title holders have the right to institute mining servitudes and other mechanisms to enter the areas required for mining activities, always subject to the fair indemnification of the land owner, as provided by the Court. If an agreement cannot be reached by negotiation there are legal mechanisms in place to allow courts to dictate an arrangement. Surface owners are entitled to receive compensation for damages and rent for occupation of the property by the mining company.

Experimental mining authorization can be applied for and is granted by the DNPM on an exceptional basis for the purpose of conducting large scale bulk sampling (by a plant), funding exploration campaign or when the mineral is short of supply in the market. It may be allowed before a mining concession is granted. It is also subject to receiving an underlying environmental license to be granted by the relevant environmental agency. The experimental mining authorization is not designed for commercial production purposes.

Mining concessions can be applied for up to one year following the submission and approval of a final exploration report by the DNPM. The report must conclude and demonstrate that an economic mineral resource has been delineated and measured. Normally, an application for the mining concession along with a mining plan and feasibility study must be presented within a year from the approval. A preliminary license and a license of installation must then be obtained before the applicable environmental agency as a prerequisite to the granting of the mining concession.

A mining concession is granted for a period covering the mine life until the mineral reserves of the deposit are exhausted. A mining concession does not convey title to a mineral deposit but provides the holder with the right to extract, process, and sell minerals extracted from the deposit in accordance with a plan approved by the DNPM. The concession remains in good standing subject to generally complying with mining code requirements, submission of annual production reports and payments of royalties to Brazil's federal government.

TAXATION

Mineral production is affected mainly by two types of fees: royalties and regular taxes.

Royalties (Compensação Financeira pela Exploração de Recursos Minerais), or CFEM, are charged monthly as a percentage of net revenue obtained from mineral production and sale. Certain deductions such as external transportation, insurance and taxes that levy on commercialization are allowed. The rate charged for phosphate and niobium is 2% on top of the net revenue, being divided as follows:

- the federal government collects 12% of the charged amount;
- the government of the state where the deposit is located collects 23% of the charged amount; and
- the government of the city where the deposit is located receives 65%.

The Brazilian Congress is in the process of reviewing the royalty rates for mining companies which means that the rates and percentages of distribution of royalties may change.

In addition, a royalty must be paid to the landowner if the surface rights do not belong to the mining titleholder. This royalty amounts to 50% of CFEM. However, it is common practice to negotiate a separate compensation agreement that is satisfactory to both parties as this amount may not be sufficient for the land owner.

The primary regular taxes that apply to niobium and/or phosphate mining activity are:

- ICMS (State Tax on Circulation of Goods and Services), which varies from state to state, but usually ranges between 12% and 19%;

- COFINS (Social Security Financing Contribution), is similar to a value-added tax and is charged on purchases at a rate of 7.6%; and

- PIS (Social Integration Program), is similar to a value-added tax and charged on purchases at a rate of 1.65%.

BUSINESS PERMITS AND OTHER REQUIREMENTS

There is no requirement for approval of a specific investor to do business or acquire assets/companies in Brazil.

Requirements for a corporation carrying out business operations in Brazil through a subsidiary or controlled company include the following:

- Brazilian companies and their foreign shareholders must be registered with the Central Bank of Brazil, or the BACEN, and comply with regulations regarding foreign direct investment. In particular, all international transfers of funds or foreign direct investments related to Brazilian companies (including their shares) must be registered with BACEN.

- Brazilian companies must be registered with the boards of trade of the states in which such company is incorporated and any state in which the company has a branch office. A board of trade is a governmental authority responsible for the approval, registration, filing and publication of certain corporate information and functions as the Brazilian registry of commerce.

- Each foreign shareholder of a Brazilian company must appoint a legal representative, who is resident in Brazil, to act on behalf of such foreign shareholder, including to receive service of process and subpoenas. A power of attorney or equivalent document in respect of such appointment must be filed with the board of trade of the state in which the relevant company is incorporated. The document appointing such representative must be certificated by the Brazilian consulate in the foreign shareholder's jurisdiction of residence or incorporation, and translated into Portuguese by an official translator.

- Brazilian companies must be registered with the federal and state revenue authorities.

- Brazilian companies shall obtain a "functioning permit" issued by city hall, as well as a "fire department certificate" issued by the local fire department in each jurisdiction in which a Brazilian company has a head or branch office.

Environmental Licenses

According to Brazilian Constitution and Law 6938/81, companies engaged in potentially polluting activities are subject to environmental licensing. The general criteria for environmental licensing is defined and regulated by CONAMA – National Council of the Environment, under Resolution No. 237, of 19 December 1997, which establishes that the Government may issue the following licenses: (i) Preliminary License, (ii) Installation License, and (iii) Operation License.

In addition, when issuing a license the Environmental Agency may establish technical requirements to be complied with by the licensed company further to the requirements provided by law, and may also establish compensations for the damages caused and mitigation actions for those that could be avoided or reduced. Thus, the company must maintain compliance with the legal and technical requirements set forth in these environmental licenses, as well as keep its activities within the licensed production limits/capacity, so as not to incur in administrative sanctions and/or fines.

Installation, operation or enlargement of operations and/or activities without proper environmental licenses, or non-compliance with technical requirements set forth in the environmental license, may subject companies to administrative penalties, such as warnings, penalties and/or suspension of activities. Lack of environmental licensing may also give rise to criminal liability against the company and its management, as per Federal Law No. 9605/1998. Criminal sanctions may include imprisonment and/or a penalty, imposed either on the person actually responsible for the act, fact or omission that typifies the crime, and/or on the person or entity's representative responsible for the decision that perpetrated the act, fact or omission.

Furthermore, the Public Prosecutor's Office can also initiate a civil investigation or a civil public action pursuing the companies to submit the potentially polluting activities to environmental licensing, as well as to repair any environmental damages that may have been caused.

Controlled Substances

Certain substances have its use, consumption, storage, transportation, among other activities, subject to the control of Federal and Civil Police in addition to the Ministry of Defense.

Lack of compliance with the requirements established by the applicable legislation (e.g. obtainment of certificates, submission of periodical reports) may give rise to penalties such as warnings, suspension of the activities and/or fines.

Occupation Health and Safety

In general, non-compliance with occupational, health and safety standards may subject companies to penalties. Whenever an imminent and serious risk for employees is identified, a total or partial suspension of the activity, sector or machine may apply up to the moment the respective risk is neutralized (i.e. risks of occupational accidents, noncompliance with regulations).

The exception refers to the Building Clearance Certificate (Certificado de Aprovação de Instalações – CAI). Establishments may only operate once the CAI is obtained, which is issued by the Occupational Health and Safety Division of the Ministry of Labor. If an establishment does not meet such requirement, there is a remote possibility that it may be barred from operations.

Nuclear Commission

A radiological establishment/sector/machine may only operate once a National Commission of Nuclear Energy (Comissão Nacional de Energia Nuclear – CNEN) permit is obtained.

CNEN-NN-4.01 Regulation establishes Safety and Radiological Protection Requirements for mining and industrial facilities. According to the Regulation, facilities are classified by CNEN under categories I, II and III, depending on specific concentration of radioactive substances presented on the industrial process. Depending on the category the establishment is classified, there are specific requirements to comply with.

It is worth stressing that CNEN is not authorized to apply fines. However, should there be noncompliance with its standards, CNEN may draw the public prosecutor office's attention to the issue for purposes of civil and criminal investigation. Lack of such permit may also give rise to an embargo, should it be considered that an imminent and severe risk is evidenced. Consequently, lack of CNEN permit and/or noncompliance with CNEN requirements may subject the companies to a risk that the establishment/sector/machine be barred from operating until the requirement is observed.

Archeological Heritage

In the event of a discovery of archeological heritage, the company must take the necessary action and obtain the authorization from the heritage authority to preserve and collect such heritage. Intervening in archeological sites or destroying archeological heritage is subject to administrative penalties in addition to other administrative sanctions (e.g. embargo/suspension of activities).

Indigenous Lands

The Brazilian Constitution provides that mining activities may only be carried out within indigenous lands subject to the prior obtainment of authorization from the National Congress, and must fulfill special conditions as provided for in an ordinary law. Consultation to the indigenous people and payment of a royalty to the indigenous people are also required by the Constitution.

The law that would regulate mining in indigenous lands has not been passed by the Brazilian Congress yet and, since 1988, no mineral rights were granted in indigenous peoples lands.

1. RESPONSIBILITY STATEMENT

This circular, for which the Directors collectively and individually accept full responsibility, includes particulars given in compliance with the Listing Rules for the purpose of giving information with regard to the Company. The Directors, having made all reasonable enquiries, confirm that to the best of their knowledge and belief the information contained in this circular is accurate and complete in all material respects and not misleading or deceptive, and there are no other matters the omission of which would make any statement in this circular misleading.

2. INFORMATION ON SHARE CAPITAL OF THE COMPANY

As at the Latest Practicable Date, the registered share capital of the Company is RMB3,377,439,739.80 divided into 3,933,468,000 H Shares of RMB0.20 each and 12,953,730,699 A Shares of RMB0.20 each. As at the Latest Practicable Date, all share capital of the Company have been issued and fully paid up.

3. DISCLOSURE OF INTERESTS

(a) Directors', chief executives' and supervisors' interests and short positions in the securities of the Company and its associated corporations

As at the Latest Practicable Date, the following Directors, supervisors and chief executives of the Company had an interest or short position in the Shares and underlying shares of the Company or its associated corporations which would fall to be disclosed to the Company under the provisions of Part XV of the SFO, as recorded in the register required to be kept by the Company pursuant to Section 352 of the SFO, or as otherwise notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers contained in the Listing Rules:

Name	Number of Shares held	Capacity	Class of Shares	Approximate percentage of shareholding in relevant class of Shares
Li Chaochun	529,564	Director	A Shares	0.012%
Li Faben	354,800	Director, Chief Executive	A Shares	0.008%
Yuan Honglin	350,200	Director	A Shares	0.008%
Zhang Zhenhao	354,500	Supervisor	A Shares	0.008%

Save as disclosed above, so far as is known to the Directors, as at the Latest Practicable Date, none of the Directors, supervisors nor chief executive of the Company had or was deemed to have any interests and short positions in the Shares, underlying shares and debentures of the Company and its associated corporations (within the meaning of Part XV of the SFO) which were required (i) to be notified to the Company and the Hong Kong Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which they were taken or deemed to have under such provisions of the SFO); or (ii) pursuant to section 352 of the SFO, to be entered in the register referred to therein; or (iii) pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers contained in the Listing Rules, to be notified to the Company and the Hong Kong Stock Exchange.

(b) Substantial Shareholders' interests and short positions in the Shares and underlying shares

As at the Latest Practicable Date, as far as is known to the Directors, supervisors and the chief executive of the Company, the following persons (other than a Director, supervisor or chief executive of the Company) had an interest or short position in the Shares or underlying shares of the Company which would fall to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO or who are directly or indirectly interested in 5% or more of the nominal value of any class of share capital carrying rights to vote in all circumstances at general meetings:

Name	Number of shares held	Capacity	Class of Share	Approximate percentage of shareholding in relevant class of shares
LMG	5,329,780,425	Beneficial owner	A share	41.14%
Luoyang Guohong Investment Group Co., Ltd.	5,329,780,425	Interest in controlled corporation	A share	41.14%
CFC	5,030,220,000	Beneficial owner	A share	38.83%
	303,000,000(L)	Interest in controlled corporation	H share	7.7%
Cathay Fortune Investment Limited ("**Cathay Hong Kong**")[(1)]	303,000,000(L)	Beneficial owner	H share	7.7%
Yu Yong	5,030,220,000	Interest in controlled corporation	A share	38.83%
	303,000,000(L)	Interest in controlled corporation	H share	7.7%

(L) – Long position

Notes:

(1) Cathay Hong Kong is a wholly-owned subsidiary of CFC in Hong Kong.

(2) Mr. Yu Yong holds 99% interest in CFC.

Save as disclosed above, so far as is known to the Directors, supervisors or chief executives of the Company, no other person (not being a Director, supervisor or chief executive of the Company) who had any interests or short positions in the shares or underlying shares of the Company (as the case may be) which would fall to be disclosed to the Company and the Hong Kong Stock Exchange, under the provisions of Divisions 2 and 3 of Part XV of the SFO, or who was, directly or indirectly, interested in 10% or more of the nominal value of any class of share capital carrying rights to vote in all circumstances at general meetings of any other member of the Group or held any option in respect of such capital.

None of the Directors or supervisors of the Company had any direct or indirect interest in any assets which had since 31 December 2015, being the date to which the latest published audited financial statements of the Company were made up, been acquired or disposed of by or leased to any member of the Enlarged Group, or are proposed to be acquired or disposed of by or leased to any member of the Enlarged Group.

None of the Directors or supervisors of the Company was materially interested in any contract or arrangement entered into by any member of the Enlarged Group since 31 December 2015, being the date to which the latest published audited financial statements of the Company were made up, and which was significant in relation to the business of the Group.

4. DIRECTORS' AND SUPERVISORS' SERVICE CONTRACTS AND LETTERS OF APPOINTMENT

As at the Latest Practicable Date, none of the Directors or supervisors of the Company had any existing or is proposed to have a service contract with the Company or any of its associated corporations which will not expire or is not determinable by the Company within one year without payment of compensation other than statutory compensation.

5. MATERIAL CHANGES

The Directors confirm that there was no material adverse change in the financial or trading position of the Group since 31 December 2015, being the date to which the latest published audited financial statements of the Company were made up.

6. COMPETING INTEREST

As at the Latest Practicable Date, none of the Directors or their respective associates had any competing interest (as would be required to be disclosed under Rule 8.10 of the Listing Rules if each of them was a controlling shareholder of the Company for the purpose of the Listing Rules).

7. LITIGATION

As at the Latest Practicable Date, neither the Company nor any of its subsidiaries was engaged in any litigation or arbitration of material importance and, as far as the Directors were aware, no litigation or claim of material importance was pending or threatened against the Group.

8. MATERIAL CONTRACTS

The following material contracts (not being contracts entered into in the ordinary course of business) were entered or to be entered into by any member of the Group within the two years immediately preceding the Latest Practicable Date:

(a) the Sale and Purchase Agreement; and

(b) the stock purchase agreement dated 9 May 2016 entered into between Phelps Dodge Katanga Corporation, Freeport-McMoRan Inc., the Purchaser and the Company in relation to the proposed acquisition of all of the issued and outstanding ordinary shares of Freeport-McMoRan DRC Holdings Ltd.

9. EXPERTS

(a) The following sets out the qualifications of the expert which has given its opinion or advice as contained in this circular:

Name	Qualification
Censere (Far East) Limited ("**Censere**")	Independent Valuer
Deloitte Touche Tohmatsu ("**Deloitte Brazil**")	Auditores Independentes, Brazil
Deloitte Touche Tohmatsu Certified Public Accountants LLP ("**Deloitte PRC**")	Certified Public Accountants, PRC
RPM	Independent technical adviser

(b) As at the Latest Practicable Date, Deloitte Brazil, RPM and Censere did not have any shareholding, direct or indirect, in any member of the Group or any right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for securities in any member of the Group.

(c) As at the Latest Practicable Date, Deloitte Brazil, RPM and Censere did not have any interest, direct or indirect, in any assets which had been acquired or disposed of by or leased to any member of the Enlarged Group, or which were proposed to be acquired or disposed of by or leased to any member of the Enlarged Group since 31 December 2015, the date to which the latest published audited financial statements of the Company were made up.

(d) As at the Latest Practicable Date, Deloitte Brazil, RPM and Censere had given and had not withdrawn their written consents to the issue of this circular with the inclusion of their letters, reports and recommendations to its name in the form and context in which they were included.

(e) The letters, reports and recommendations given by Deloitte Brazil, RPM and Censere are given as of the date of this circular for incorporation herein, and no material change has occurred since the effective dates of such letters, reports and recommendations.

10. MISCELLANEOUS

(a) The Company's registered office is at North of Yihe, Huamei Shan Road, Chengdong New District, Luanchuan County, Luoyang City, Henan Province, the PRC.

(b) The company secretary of the Company is Ms. Ho Siu Pik (FCS, FCIS). Ms. Ho Siu Pik is a fellow member of both The Institute of Chartered Secretaries and Administrators and The Hong Kong Institute of Chartered Secretaries.

(c) Save as otherwise indicated, the English text of this circular shall prevail over the Chinese text in the case of any inconsistency.

11. DOCUMENTS AVAILABLE FOR INSPECTION

Copies of the following documents are available for inspection at the principal place of business in Hong Kong of the Company at Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong during normal business hours (from 8:30 a.m. to 5:30 p.m., Monday to Friday, excluding public holidays) from the date of this circular for a period of 14 days and at the EGM:

(a) the articles of association of the Company;

(b) the written consents referred to in the paragraph headed "Experts" to this Appendix;

(c) the material contracts referred to in the paragraph headed "Material Contracts" to this Appendix;

(d) the consolidated audited accounts of the Group for the years ended 31 December 2014 and 2015;

(e) the accountants' reports of the Niobium Business and the Phosphates Business, the texts of which are set out in Appendices IIA and IIB to this circular;

(f) the pro-forma financial information of the Enlarged Group as set out in Appendix IV to this circular;

(g) the Competent Person's Report, the text of which is set out in Appendix V to this circular;

(h) the Valuation Report, the text of which is set out in Appendix VI to this circular; and

(i) this circular.

洛陽欒川鉬業集團股份有限公司
China Molybdenum Co., Ltd. *

(a joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 03993)

NOTICE OF THE 2016 FIRST EXTRAORDINARY GENERAL MEETING

NOTICE IS HEREBY GIVEN that the 2016 first extraordinary general meeting ("**EGM**") of China Molybdenum Co., Ltd.* (the "**Company**") will be held at 1:00 p.m. on Friday, 23 September 2016 at the International Conference Room of Mudu-Lee Royal International Hotel at No. 239, Kaiyuan Street, Luolong District, Luoyang City, Henan Province, the People's Republic of China (the "**PRC**") for the purposes of considering and, if thought fit, passing (with or without modifications) the following special resolutions. Unless otherwise indicated, capitalized terms used herein have the same meanings as those defined in the announcement of the Company dated 2 May 2016.

SPECIAL RESOLUTIONS

1. "To consider and approve the "Resolution in relation to the Material Asset Acquisition (Acquisition of Overseas Niobium and Phosphates Businesses) of the Company Satisfying Conditions of Material Asset Reorganization of Listed Companies"."

2. "To consider and approve the "Resolution in relation to the Plan of Material Asset Acquisition (Acquisition of Overseas Niobium and Phosphates Businesses) of the Company"."

3. "To consider and approve the "Resolution in relation to the "Material Asset Acquisition Report (Acquisition of Overseas Niobium and Phosphates Businesses) (Draft) of China Molybdenum Co., Ltd.*" and its Summary"."

4. "To consider and approve the "Resolution in relation to the Material Asset Acquisition (Acquisition of Overseas Niobium and Phosphates Businesses) of the Company not Constituting a Reverse Takeover as Stipulated in Article 13 of the "Administrative Measures for Material Asset Reorganization of Listed Companies" (《上市公司重大資產重組管理辦法》)"."

5. "To consider and approve the "Resolution in relation to the Material Asset Acquisition (Acquisition of Overseas Niobium and Phosphates Businesses) of the Company Satisfying the Requirements under Article 4 of the "Regulations Concerning the Standardization of Certain Issues of Material Asset Reorganization of Listed Companies" (《關於規範上市公司重大資產重組若干問題的規定》)"."

6. "To consider and approve the "Resolution in relation to the Explanation of Whether the Fluctuation in Share Price as a Result of the Material Asset Acquisition (Acquisition of Overseas Niobium and Phosphates Businesses) of the Company Reached the Relevant Standards under Article 5 of the "Notice Concerning the Standardization of Information Disclosure of Listed Companies and Behaviour of Each Relevant Party" (《關於規範上市公司信息披露及相關各方行為的通知》) (Zheng Jian Gong Si Zi [2007] No. 128)"."

7. "To consider and approve the "Resolution in relation to the Material Asset Acquisition (Acquisition of Overseas Niobium and Phosphates Businesses) of the Company not Constituting a Connected Transaction"."

8. "To consider and approve the "Resolution in relation to the Proposed Authorization to the Board at the General Meeting to Handle All Matters Relating to the Material Asset Acquisition (Acquisition of Overseas Niobium and Phosphates Businesses)"."

For details of the above resolutions, please refer to the announcement(s) of the Company dated including 8 August 2016. A circular containing further information in respect of, among other things, the Transaction, will be despatched to the Shareholders as soon as practicable.

By Order of the Board
China Molybdenum Co., Ltd.*
Li Chaochun
Chairman

Luoyang City, Henan Province, the PRC, 8 August 2016

* *For identification purposes only*

Notes:

(1) All resolutions at the meeting will be taken by poll except where the chairman, in good faith, decides to allow a resolution which relates purely to a procedural or administrative matter to be voted on by a show of hands pursuant to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "**Hong Kong Listing Rules**"). The results of the poll will be published on the websites of The Stock Exchange of Hong Kong Limited and the Company in accordance with the Hong Kong Listing Rules.

(2) H Shareholders who intend to attend the EGM in person or by proxy should return the reply slip to the office of the Board at the Company's principal place of business in the PRC 20 days before the meeting, i.e. before Friday, 2 September 2016 by hand, by post or by fax. The contact details of the Company's office of the Board are set out in note (9) below.

(3) Each H Shareholder of the Company who has the right to attend and vote at the EGM is entitled to appoint in writing one or more proxies, whether a Shareholder or not, to attend and vote on his/her behalf at the EGM. The instrument appointing a proxy must be in writing under the hand of the appointor or his/her attorney duly authorized in writing. In case that an appointor is a body corporate, the instrument must be either under the common seal of the body corporate or under the hand of its director or other person, duly authorized. If the instrument appointing a proxy is signed by an attorney of the appointor, the power of attorney authorizing that attorney to sign, or other documents of authorization, must be certified by a notary public. For H Shareholders, the form of proxy and the notarially certified power of attorney or other documents of authorization must be delivered to the Company's H Share registrar at the address stated in note (8) below by post or facsimile (for H Shareholders only), not less than 24 hours before the time appointed for holding the EGM or any adjournment thereof (as the case may be).

(4) Completion and return of the form of proxy will not preclude a Shareholder from attending and voting at the EGM or any adjournment should he/she so wish.

(5) H Shareholders or their proxies must present proof of their identities upon attending the EGM. Should a proxy be appointed, the proxy must also present his/her proxy form, or appointing instrument and power of attorney, if applicable.

(6) In order to determine the list of H Shareholders who will be entitled to attend and vote at the EGM, the Company's register of members of H Shares will be closed from Wednesday, 24 August 2016 to Friday, 23 September 2016 (both days inclusive) during which period no transfer of shares will be effected. H Shareholders whose names appear on the register of members of H Shares of the Company at 4:30 p.m. on Tuesday, 23 August 2016 shall be entitled to attend and vote at the EGM. In order for the H Shareholders to qualify for attending and voting at the EGM, Shareholders whose H Shares are not registered in their names should complete and lodge their respective instruments of transfer with the relevant H Share certificates with Computershare Hong Kong Investor Services Limited, the Company's H Share registrar in Hong Kong, at Shops 1712–1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong, and in any case no later than 4:30 p.m. on Tuesday, 23 August 2016.

(7) A vote given in accordance with the terms of an instrument of proxy shall be valid notwithstanding the death or loss of capacity of the appointor, or the revocation of the proxy or of the authority under which the proxy was executed, or the transfer of shares in respect of which the proxy is given, provided that no notice in writing of these matters shall have been received by the Company prior to the commencement of the EGM.

(8) The address and contact details of the H Share registrar of the Company, Computershare Hong Kong Investor Services Limited, are as follows:

17M Floor
Hopewell Centre
183 Queen's Road East
Wanchai
Hong Kong
Telephone No.: (+852) 2862 8555
Facsimile No.: (+852) 2865 0990/(+852) 2529 6087

(9) The address and contact details of the Company's office of the Board at its principal place of business in the PRC are as follows:

North of Yihe
Huamei Shan Road
Chengdong New District
Luanchuan County
Luoyang City
Henan Province
People's Republic of China
Postal code: 471500
Telephone No.: (+86) 379 6865 8017
Facsimile No.: (+86) 379 6865 8030

(10) The EGM is expected to last not more than one day. Shareholders or proxies attending the EGM are responsible for their own transportation and accommodation expenses.

The Circular ("**Circular**") in Chinese and English version has been published on the Company's website (www.chinamoly.com). Shareholders that choose to receive the corporate communications of the Company (including but not limited to annual reports, summary financial reports (if applicable), interim reports, interim summary reports (if applicable), notice of meeting, listing documents, circulars and proxy forms) and have difficulties in receiving corporate communications published on the Company's website for any reason can request for the free printed Circular sent by post. Shareholders can change the way of receiving the corporate communications of the Company and the selection of language version at any time.

Shareholders can request for the printed Circular or to change the way of receiving the corporate communications of the Company and the selection of language version by giving a written notice to the Company within a reasonable period of time. Such a written notice should be given to the share registrar for H shares of the Company, i.e. Computershare Hong Kong Investor Services Limited (address: 17M Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong), or e-mail to chinamoly@computershare.com.hk.