

## **Zanaga Iron Ore Company – 2017 Annual Report and Accounts**

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## Table of Contents

<b>BUSINESS OVERVIEW .....</b>	<b>2</b>
<b>HIGHLIGHTS 2017 AND POST BALANCE SHEET EVENTS TO JUNE 2018.....</b>	<b>2</b>
<b>CHAIRMAN’S STATEMENT.....</b>	<b>4</b>
<b>STRATEGIC REPORT .....</b>	<b>7</b>
<b>FINANCIAL REVIEW .....</b>	<b>13</b>
<b>RESERVES &amp; RESOURCE STATEMENT .....</b>	<b>15</b>
<b>PRINCIPAL RISKS &amp; UNCERTAINTIES.....</b>	<b>17</b>
<b>CORPORATE SOCIAL RESPONSIBILITY .....</b>	<b>23</b>
<b>CORPORATE GOVERNANCE .....</b>	<b>27</b>
<b>BOARD OF DIRECTORS .....</b>	<b>27</b>
<b>DIRECTORS’ REPORT .....</b>	<b>28</b>
<b>CORPORATE GOVERNANCE REPORT .....</b>	<b>32</b>
<b>REMUNERATION REPORT.....</b>	<b>36</b>
<b>STATEMENT OF DIRECTORS’ RESPONSIBILITIES.....</b>	<b>40</b>
<b>FINANCIAL STATEMENTS .....</b>	<b>ERROR! BOOKMARK NOT DEFINED.</b>
<b>INDEPENDENT AUDITOR’S REPORT.....</b>	<b>ERROR! BOOKMARK NOT DEFINED.</b>
<b>GLOSSARY .....</b>	<b>65</b>
<b>RESOURCE APPENDIX.....</b>	<b>66</b>
<b>RESERVE APPENDIX.....</b>	<b>81</b>
<b>ADVISORS.....</b>	<b>90</b>

# Business Overview

28 June 2018

## 2017 Highlights and post balance sheet events to June 2018

- Early Production Project (“EPP”)
  - Further positive product test results received in Q2 2018
    - Recent pellet feed concentrate results confirm a premium product is capable of being produced from the Zanaga Iron Ore Project (“Zanaga Project”) haematitic iron ore with an iron ore grade of 67.4% and low impurities
    - Cold pelletisation technology tests successfully achieve production of a pellet of sufficient quality to meet industry standards as determined by third party laboratories. Process underway to undertake further product testing before engaging with a leading European steel mill to ascertain commercial acceptability
  - Logistics routes to two potential exit ports further defined – seeking to secure firm cost estimates in H2 2018
  - Further study work commenced to ascertain overall project feasibility and scope of operations with the objective of defining the EPP’s economics
  - Updates to be provided in H2 2018
- 30Mtpa staged development project (12Mtpa Stage One, plus 18Mtpa Stage Two expansion)
  - Positive results from review of the 12Mtpa Stage One development project as outlined in the 2014 Feasibility Study (“FS review”)
    - High level analysis of capital and operating cost estimates completed in May 2017
    - Results indicated significant savings achievable across both capital and operating cost estimates for the 12Mtpa Stage One development project
    - The Project Team are engaging with third party contractors and consultants to evaluate options to investigate savings achievable on the 30Mtpa staged development project to a higher degree of confidence
  - Environmental Permit awarded in November 2017
- Port
  - Non-binding Letter of Intent (“LOI”) submitted to China Road and Bridge Corporation (CRBC) by Mining Project Development Congo SAU (“MPD Congo”) and other mining companies to support CRBC’s current discussions with Chinese funding institutions for the development of the new bulk mineral port at Pointe-Indienne, Republic of Congo
- Work programme and budget for 2018 and 2018 Funding Agreement agreed with Glencore Projects Pty Ltd (“Glencore”), a subsidiary of Glencore plc
- Cash balance of US\$3.7m as at 2017 year end, and a cash balance of US\$3.1m at 31 May 2018

### Clifford Elphick, Non-Executive Chairman of ZIOC, commented:

*“Despite the continued challenge of securing funding for large scale developments, The Zanaga Project continues to progress and achieve significant major milestones. In 2017 we were pleased that the Zanaga Project was awarded an Environmental Permit and we would like to thank the Ministry of Environment of the Republic of Congo for its diligence in reviewing the extensive work completed by the Zanaga Project team.*

*Furthermore, in June 2018 we have been pleased by the significant progress in product test work which is aimed at determining the viability of producing either a high grade pellet feed concentrate product or even an industry acceptable pellet using a new technological process which continues to show signs of viability.*

*In order to assist in advancing the development of a New Mineral Port dedicated to the iron ore and potash/phosphate industries in the Republic of Congo MPD Congo has increased its engagement with China Road and Bridge Corporation, a division of one of the largest Chinese state construction companies, currently engaged in a dialogue with Chinese institutions on the financing of this significant port development. If the proposed "New Mineral Port" can be financed and constructed, it would unlock the potential of the mining companies in the RoC and be pivotal in unlocking larger projects in particular, such as the Zanaga Project.*

*Achieving further success in Jumelles' product test work continues to support the Zanaga Project team's interest in the Early Production Project, while obtaining the Environmental Permit and increasing engagement on the proposed New Mineral Port assist us in our efforts to support Jumelles in advancing the Zanaga Project and attracting finance to enable the Zanaga Project to be brought into production.*

*We look forward to providing further updates to shareholders as results are received from the current study work programs"*

The 2017 Annual Report and Accounts will be available on the Company's website [www.zanagairon.com](http://www.zanagairon.com) today.

The Company will post its Annual Report and Accounts for the year ended 31 December 2017 ("2017 Annual Report and Accounts") to shareholders on 30 June 2018.

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**About us:**

Zanaga Iron Ore Company Limited (AIM ticker: ZIOC) is the owner of 50% less one share in the Zanaga Iron Ore Project based in the Republic of Congo (Congo Brazzaville) through its investment in associate. The Zanaga Iron Ore Project is one of the largest iron ore deposits in Africa and has the potential to become a world-class iron ore producer.

## **Chairman's Statement**

Dear Shareholder,

We continue to witness ongoing reassurance that the iron ore market is in a robust position and that the mining industry has underinvested in new development projects in the years that have followed since the commodity crisis of 2014. The strong current levels of consumption of steel and iron ore in China, the world's largest consumer of these materials, provides confidence in the future of demand for iron ore as a critical raw material in the Chinese economy as well as those economies following in China's footsteps to secure high growth through infrastructure development and urbanisation programmes.

In spite of the challenges of securing funding for large scale developments, the Zanaga Iron Ore Project continues to progress and achieve significant major milestones. In 2017 we were pleased that the Zanaga Project was awarded an Environmental Permit covering the Project's 12Mtpa Stage One development as outlined in its Mining Licence and Mining Convention. In addition, Jumelles, the joint venture between the Company and Glencore plc, launched a process to evaluate the potential of a smaller scale start up project capable of accelerating initial production from the Zanaga Project using existing road and rail infrastructure that has been improved in the last few years.

More recently, we have been pleased by the significant progress in the product test work programme which is aimed at determining the viability of producing either a high grade pellet feed concentrate product or even an industry acceptable pellet, using a new technological process which continues to show signs of viability. These encouraging results have been assembled from highly regarded independent laboratories and now the team is moving quickly to undertake a programme to commission confirmatory tests on the new polymer pellet product and to ascertain its viability with a leading European steel mill.

The Zanaga Project Team continue to advance study work in an effort to improve their understanding of the viability of the EPP project with an aim to determining capital and operating cost estimates as soon as possible in order to allow a view to be taken on the economic viability of this project.

In order to assist in advancing the development of a New Mineral Port dedicated to the iron ore and potash/phosphate industries in the Republic of Congo ("RoC") the Zanaga Project Team has increased its engagement with China Road and Bridge Corporation, a division of one of the largest Chinese state construction companies, and is currently engaged in a dialogue with Chinese institutions on the financing of this significant port development. This New Mineral Port would unlock the potential of the mining companies in the RoC and be pivotal in unlocking larger projects in particular, such as Zanaga. It is encouraging to see that the Chinese government is engaging with the RoC government on potential infrastructure development opportunities, and recent discussions have confirmed that the RoC forms part of China's 'One Belt One Road' development strategy which has infrastructure at the forefront of its objectives.

Iron ore markets remain stable while the continuing trend towards demand for high quality iron ore products reaffirms the significance of Zanaga in the future of the iron ore industry. This evolution of consumption towards higher quality products has been driven by a strong push from China to reduce pollution and improve efficiency in its energy consumption and steel production operations. The sustained level of significant premiums being paid for higher quality products similar to the type of product anticipated from ZIOC reassures us that this is a structural, rather than a cyclical, shift in industry pricing dynamics.

In these exciting times for the iron ore industry and the Zanaga Project we look forward to providing further updates to shareholders as results are received from the current study work programmes.

### **New Mineral Port in Pointe-Indienne**

In March 2013, the RoC signed a Memorandum of Understanding with China Communications Construction Company ("CCCC") and its subsidiary China Road and Bridge Corporation ("CRBC") for the development of a new port at Pointe Indienne. The port development is proposed to include a deepwater export facility for the iron ore industry and a dedicated quay for the potash and phosphate industry.

Encouraged by the Congolese State, various exchanges took place in 2014 and 2015 between CRBC and a number of mining companies in order to allow CRBC to better understand each mining project and their progress in order to integrate these different projects in the design of the future mineral port.

CRBC has now completed a feasibility study outlining the development plan for the future ore port, including the phased development of the iron ore and potash terminals. The Federation of Mines, of which MPD Congo is a member, is increasingly working with CRBC in determining the optimal solution for the development of the New Mineral Port.

While the CRBC feasibility study does provide for the possibility of exporting different types of ores and plans a phasing of the port development, further discussion is required between the parties relating to the inclusion of already approved development schemes and transport corridors of the mining companies. A number of technical considerations need to be discussed in depth. Moreover, it is necessary that information on economic and financial aspects of the port development are advanced between the parties.

The mining companies have been informed that CRBC is engaged in discussions with Chinese funding institutions, particularly China EXIM Bank, in respect of the financing of the proposed new port development.

As a result of the increased engagement between a number of the mining companies and CRBC, on 8 June 2018 a non-binding LOI was signed between five mining companies, including MPD Congo, the local operating entity of Jumelles Limited. In this letter, which was delivered to China Road and Bridge Corporation (CRBC), these mining companies expressed their support in principle for the development of the New Mineral Port at Pointe-Indienne 9km kilometres north of the existing port of Pointe-Noire in the RoC and confirmed their intention to continue discussions with CRBC so as to arrive at a port solution which would take account of the needs of their respective projects.

### **Permitting**

On 6 November 2017 the Zanaga Iron Ore Project was awarded an Environmental Permit ("the Environmental Permit") by the Ministry of Environment of the RoC.

The Environmental Permit covers the Zanaga Project's first phase of development pursuant to its Mining Licence granted in August 2014, as outlined in the Zanaga Project's Feasibility Study ("Feasibility Study").

A Social and Environmental Impact Assessment study (SEIA) was lodged with the Ministry of Environment of the RoC in April 2014. Following comments received from the Ministry of Environment an amended SEIA was transmitted in June 2017 which was approved through the award of the Zanaga Project's Environmental Permit.

### **Iron Ore Market**

Iron ore products are not homogenous in nature and product pricing is affected significantly as a result of iron content as well as impurity levels. For more than a year now the global iron market has witnessed pricing developments of an unprecedented nature.

These developments include the crackdown by the Chinese government on the level of pollution resulting from the domestic steel production process. A number of inefficient and high polluting Chinese steel producers have been forced to close. This has led to a reduction in the overall supply of steel products, a rise in steel prices, and improved profitability of China's remaining steel production base. This has allowed Chinese steel producers to afford higher grade iron ore products that would result in greater production levels without expanding the processing capacity of their existing operations. At the same time, Chinese steel producers have been faced with higher prices for coking coal and have sought to increase production efficiencies from their existing operations while achieving lower pollution levels.

This has led to a substantial increase in prices of high quality iron ore products, with high iron content itself (improving yield in a steel plant) and lower impurity levels, requiring less coking coal and having a significantly reduced environmental impact.

The scale of the price premiums being paid for these high quality iron ore products has significantly exceeded market expectations. This underlines the importance of projects with ores capable of producing premium products at costs that result in the achievement of high margins. This is explained in more detail in ZIOC's project update announcement on 8 March 2018.

### **Cash Reserves and Project Funding**

ZIOC is pleased with the current operating budget expectations for the Project for 2018 and expects the Project Team to continue to deliver on work programmes as planned.

Similar to the Funding Agreement for 2017 project expenditure, Glencore and ZIOC have agreed a 2018 Project Work Programme and Budget for the Project of US\$1.3m plus US\$0.2m of discretionary spend dependent on certain workstreams requiring capital. ZIOC has agreed to contribute towards this work programme and budget an amount comprising US\$0.6m plus 49.99% of all discretionary items approved jointly with Glencore. Ignoring any entitlement to savings, ZIOC's potential contribution to the Project in 2018 is US\$0.8m in total. In the event that a decision is taken to allocate capital to more extensive product tests or study work additional funding may be required.

Based on the current cost base at the Zanaga Project, as well as the current low corporate overheads of ZIOC, we are well positioned to support our operations going forward in the near future. The board of directors of ZIOC (the "Board") is of the view that ZIOC has sufficient funds to meet its working capital requirements up to, and beyond, twelve months from the approval of these accounts. The Company had cash reserves of US\$3.1m as at 31 May 2018 and continue to take a prudent approach to managing these funds.

### **Outlook**

In 2017 the Zanaga Project Team commenced the process of actively investigating the potential for the early development of a small-scale, low capex project utilising road and potentially rail transportation solutions as well as existing port infrastructure. Significant progress has been made in determining the viability of this option, particularly as regards the capability of delivering an iron ore product from this small scale solution.

We remain encouraged by improving iron ore market conditions for premium products. The Zanaga Project Team is moving forward with study work on the EPP Project as well as evaluating the potential to update the cost estimates of the 30Mtpa Project in accordance with the current pricing environment.

The receipt of the Environmental Permit is a significant milestone in the advancement of the Zanaga Project, together with the Zanaga Project's Mining Convention and Mining Licence. The Zanaga Project Team is now seeking to advance the appropriate port and power arrangements with the relevant bodies in the RoC.

Furthermore, in June 2018 MPD Congo, Jumelles' subsidiary in the RoC, signed a non-binding Letter of Intent with other mining companies relating to continuing discussions with China Road and Bridge Corporation, a division of one of the largest Chinese state construction companies, in order to advance discussions regarding the development of a New Mineral Port dedicated to the iron ore and potash industries in the RoC.



**Clifford Elphick**  
Non-Executive Chairman

# Strategic Report

## Business Review

A number of factors have shifted to the Zanaga Project's benefit in the last few years, including (a) robust iron ore demand in China and increased pricing for benchmark iron ore; (b) record price premiums for high quality iron ore products above benchmark price level; (c) upgrading of rail, road and port infrastructure, particularly across the border from Zanaga in Gabon; (d) reductions in third party contractor pricing in the mining industry globally; and (e) reduced energy costs.

The Zanaga Project Team has considered these factors in developing its strategy for assessing the options available for the development of the Zanaga Project and has made significant progress in this regard.

Since early 2017 the Zanaga Project Team has been actively investigating the potential for the development of an EPP which would entail a small-scale, low capital cost operation utilising road and potentially rail transportation solutions as well as existing port infrastructure. This strategy is aligned with the Jumelles Shareholders' desire to seek a low capital cost initial production phase, derisking the operation, delivering a first product into the seaborne market, and potentially assisting the objective to position the 12Mtpa Stage One project for the raising of finance from investors.

The Zanaga Project Team have worked to assess a number of revised scale options for the initial development of the EPP project, and critical to this work is determining a viable product and suitable logistics solution for transportation to an exit port at reasonable cost. Further background and information is provided in ZIOC's "Project Update Announcement" on 8 March 2018.

The objectives of the Zanaga Project Team are to determine the feasibility of the following project:

- a) A viable EPP that demonstrates attractive economics in the current, and long term, iron ore price environment by producing a high quality iron ore product.
- b) Produce a pellet feed iron ore concentrate from the enriched near surface, hematite dominated Zanaga ores with a target final grade of minimum 65% Iron, approximately 5% combined silica plus alumina, and <0.05% phosphorus that can attract price premiums similar to those being achieved by similar products from other mining companies.
- c) Seek to secure additional margin by establishing the viability of producing pellets from the Zanaga pellet feed concentrate using polymer based binders ("Cold Pelletisation"), to produce pellets with physical and chemical properties that will be attractive to global iron ore markets, attract price premiums similar to those being achieved by conventional pellets, and be produced at a low cost.

## Early Production Project (EPP) Update

### 1. Product test results

Following ZIOC's announcement on 8 March 2018, further test work has been conducted by independent third party experts on the viability of producing pellet feed concentrate from Zanaga's surface ores.

The results of this test work confirm that simple gravity based processing of the friable enriched, hematite dominated, near surface Zanaga iron ore can produce an even higher quality pellet feed iron ore concentrate product than that which was announced in March 2018. The latest test results achieved a pellet feed concentrate grading 67.4% iron, combined silica plus alumina of 5.9%, and 0.03% phosphorus.

As previously indicated, a significant test work programme has been conducted on the potential to further advance the desirability of the Zanaga product by processing Zanaga's iron ore to produce a pellet feed concentrate product and to then pelletise this product. While conventional pellets are typically manufactured in plants that require high capital cost which is not normally viable for smaller scale operations, the Zanaga Project Team have been working with a technology company that has been developing an



alternative solution of pelletising iron ore concentrate by utilising a polymer binding agent capable of converting pellet feed into a pellet (Cold Pelletisation) at lower cost than conventional pelletisation processes.

Independent technical experts were commissioned to conduct a series of trial tests on various batches of Zanaga pellets, produced by the technology provider using Zanaga pellet feed concentrate. Cold Pelletisation using polymer binders is not a “one size fits all” solution and the test work required numerous iterations of Zanaga pellet feed concentrate and various chemical compositions of the polymers in order to identify the optimum polymer formula for the ore being processed. The objective of this pelletisation test work is to ascertain the viability of utilising this technology to produce pellets from Zanaga pellet feed and the viability of incorporating a Cold Pelletisation process into the Zanaga project’s EPP Project, or even the larger 30Mtpa project.

The results show that the Zanaga EPP project’s pellet feed concentrate has the potential to be pelletised using a Cold Pelletisation process. These positive laboratory results indicate that the Zanaga pellets would withstand the duress of transportation and should be attractive for purchase by a steel mill.

The team is now engaging in a process where confirmatory tests will be undertaken and then to engage with a leading European steel mill to ascertain the acceptability of this product. This is a very encouraging opportunity which could provide helpful additional economic margin to the business across both the EPP project solution as well as potentially being viable for the larger 30Mtpa project.

## *2. Cold Pelletisation overview*

Cold Pelletisation is a relatively new technology that has been enabled by advancements in the development of industrial polymers.

The viability of Cold Pelletisation in relation to the development of any significant iron ore prospect or any operating iron ore mine has still to be demonstrated and tested. Whether Cold Pelletisation will emerge as a real competitor to, and advance on, conventional pelletisation is still unknown. The advocates of Cold Pelletisation will need to demonstrate to steel mills and end users that pellets produced by this novel process can successfully achieve, and if possible surpass, the specifications and performance of pellets produced by conventional methods. In particular, the advocates of this process would need to show on a consistent basis by reference to operations of a reasonable scale that polymer bound pellets are able to demonstrate the potential for strong physical characteristics which would result in minimal degradation resulting from road, rail and shipping transport (assessed using tumble, drop and cold crush strength tests), while also meeting the performance requirements of a steel mill customer.

The perceived potential benefits of Cold Pelletisation, as advocated by the technology providers are low capital cost, low incremental operating costs and low environmental footprint. The extent to which the proposed benefits are achievable is still to be tested and established. The application of Cold Pelletisation techniques to actual commercial operations are still in the early stages of development.

It is important for shareholders to understand that there is a difference between the products that the team is considering. Based upon test work carried out so far, any Zanaga pellet feed concentrate product would be a traditional product of a kind which is regularly provided by mining companies today. By contrast, the polymer based pellet that would be envisaged to be produced as part of the EPP initiative, is a novel product that has very little track record in the marketplace. Ascertaining the acceptability of this polymer pellet product with steel mills is key to determining the viability of incorporating this solution into any development plans for the EPP project. In fact it may be the case that the EPP project is considered best suited to a pure pellet feed concentrate production scenario until such time as polymer pelletisation is developed to an acceptable degree of market acceptance.

## *3. Transportation and Logistics*

The Zanaga Project Team has been evaluating potential road and rail routes from the Zanaga mine site to an exit port either in Pointe-Noire (PAPN), RoC or Owendo (close to Libreville), Gabon which would be used for the EPP project. A number of service providers have been approached to ascertain the cost of exporting via these routes.

### *Gabon logistics solution for the EPP Project*

The Zanaga EPP project envisages trucking approximately 170km from the Zanaga mine site to the Transgabonais rail siding in Franceville, Gabon. From there the ore would be loaded into wagons and railed to the new port of Owendo in Libreville for export.

In terms of the rail logistics component, in 2016 the International Finance Corporation (“IFC”), a member of the World Bank Group, and Proparco, the private sector financing arm of the French Development Agency provided US\$58 million of financing to Société d’Exploitation du Transgabonais (“SETRAG”), the operator of the 650 kilometre Transgabonais rail line (“Transgabonais”) between Franceville and Libreville to increase capacity and improve efficiency of the railway line. The Transgabonais serves Gabon’s main central economic corridor and connects the country’s iron ore and manganese mines to international markets. SETRAG has used the funds to increase the railway’s transport capacity while also improving its reliability.

Our understanding is that the railway line currently has approximately 300ktpa excess capacity to service the EPP project following the upgrades that have been completed. In addition, this excess rail capacity is expected to be expanded in stages to approximately 1MTPA by 2020. Further engagement with SETRAG is expected to result in a higher degree of understanding on the potential to secure access to this railway line and determine pricing for its usage.

Regarding a port solution in Gabon, the Project Team have engaged with the Gabon Special Economic Zone (“GSEZ”), the management company and developer of the new port infrastructure located at Owendo. GSEZ is the outcome of the public-private partnership between Olam International, a leading global agri-corporation the Gabonese Republic and Africa Finance Corporation. More than US\$ 500 million has been invested in the construction and development of the new port infrastructure, including a minerals harbour of 45 hectares which was completed in October 2017. It is understood that that more than 1MTPA of capacity is available at the port today. The Zanaga Project Team are engaging with GSEZ in an effort to understand the potential pricing associated with this option.

### *RoC logistics solution for the EPP Project*

In RoC the Project Team are investigating the viability of trucking material from the mine site to the Port of Pointe-Noire, or pursuing a combination of transportation solutions including road transportation to the railway line in Mossendjo, whereby it would be taken by rail to the port of Pointe-Noire. One of Zanaga’s neighbouring exploration projects has commenced operations in May 2018 to transport iron ore along this railway line to the Port of Pointe Noire.

Significant study work has already been conducted and published by Zanaga and its neighbouring exploration and development mining projects into the viability of the rail route. It is encouraging to see progress being made to deliver operating capability of a small scale on this rail line for bulk materials. The continuous operation of this rail route remains challenging however and some progress is still required in order to manage the challenges of establishing a reliable rail operation. We remain encouraged by the determination of the current operator and look forward to a viable rail route being established to the port of Pointe Noire. However, our understanding is that a viable rail route option would still require significant upgrading and the provision of finance to achieve this.

#### *4. EPP Project next steps*

Port access remains a key consideration for the Zanaga Project Team. Discussions have taken place with both authorities at the Port of Libreville in Gabon and Port of Pointe Noire in Congo but additional work and discussions are required to establish a conclusive outcome. Key to the assessment of the solution will be the ability to secure port access and ensure capacity of the road and rail routes.

The Zanaga Project Team continue to evaluate the options available and intend on reaching a conclusive decision on the best transportation route to market during H2 2018.

The team has outlined a number of next steps, including the following:

- a) Complete the extensive product test work program in relation to the pellet feed concentrate

- b) Continue the product test work program to assess the viability of using a Cold Pelletisation process to produce a pellet product using Zanaga pellet feed concentrate
- c) Advance study work on mining, process, power and logistics solutions in order to define capital and operating cost elements of the EPP project
- d) Conduct preliminary assessment of the marketing of the product
- e) Present the outcomes to the Jumelles board of directors (the “Jumelles Board”) and to the shareholders of Jumelles, ZIOC and Glencore for further consideration

The purpose of these steps is to establish whether the EPP project is a viable proposition. If the Jumelles Board and the shareholders of Jumelles (ZIOC and Glencore) conclude that the EPP is a viable proposition, and support taking the EPP initiative forward, that would enable the Zanaga Project Team to then engage with governmental bodies, regulators and contractors as to the permitting process and contractual structures. At the same time, the Zanaga Project would then be in a position to commence discussions with various parties on potential financing solutions for the development of the EPP project.

### **30Mtpa staged development project**

Since the 2014 Feasibility Study (“FS”) was produced, based on a 12Mtpa Stage One Project, industry input costs have dropped significantly. During 2015 and 2016 the Project Team, and the Jumelles shareholders, considered it premature to consider a re-costing of the FS. However, in light of developments in the market, it was considered sensible to obtain a “high level” indicative review of certain costs of the Project (including costs generated by exchange rate movements) by an external consultancy firm.

As a result, a decision was taken by Jumelles to commission an internationally recognised technical consulting group, to carry out a “high level” capex and opex review with no re-engineering. The review, which was considered in detail by the Jumelles Board in May 2017 indicated that as regards the costs of the 12Mtpa Stage One Project, there was potential scope for capital cost savings of between 8% and 19% (US\$153m to US\$371m) and for operating cost savings of between 15% and 20%. This outcome was driven by potential reductions in costs of steel, oil, labour, contractor rates, freight, and weaker forex rates for key input cost items versus the US Dollar.

To have better defined these potential savings to feasibility study levels of confidence, using cost estimates from the full suite of technical consultants who were engaged on the 2014 FS, would have cost an estimated US\$180,000. The possibility of proceeding with such a workstream is kept under review as an option. Various inputs would of course have changed since Q2 2017, so the outcomes would be different from those referred to above. Any decision to proceed with such FS re-costing is largely dependent on whether industry sentiment is conducive to new partner investors entering into a serious dialogue on financing the 12Mtpa Stage One Project.

While it is encouraging to see the potential positive impact on the Zanaga Project’s FS, and ultimately the potential improvement in the economic returns of the Project, it is important to recognise that these numbers are not yet costed to a high level of definition and are high level estimates that only indicate potential savings. In order to better define these estimates the Project Team would require further work to be conducted ahead of considering a full re-estimate of the 2014 Feasibility Study to updated feasibility study level. It is also important to be reminded that the quantum of capital required for the development of the Zanaga Project, even if significantly reduced, is still a significant financing challenge and requires a substantial level of conviction in the stability of long term iron ore prices.

As a result, the Project Team believe there are significant advantages available to the larger project by first pursuing the potential development of the EPP project and establishing its viability. Delivering a viable EPP project would result in benefits such as:

- a) Derisking of a number of logistical matters which are required for the larger project, including export and import solutions
- b) Establishment of product acceptance in the iron ore industry

- c) Operating cash flows, some of which might be available for financing part of the equity component of the Stage One mining project
- d) Development of operating skills and a larger operating presence at the Zanaga mine site

Furthermore, the Zanaga Project Team will continue to engage in activity to ascertain opportunities for optimisation and improvement of the 30Mtpa staged development project and will update the market as these improvements develop.

### **New Mineral Port Update**

In March 2013, the RoC signed a Memorandum of Understanding with China Communications Construction Company (“CCCC”), and its subsidiary China Road and Bridge Corporation (“CRBC”), for the development of a new multi-user port facility 9km north of the existing port of Pointe-Noire at Pointe Indienne, including a deepwater bulk export facility for the iron ore industry. CRBC has conducted a significant amount of work on this major project, including a feasibility study on the port development.

ZIOC notes that there is still discussion between the RoC Government, China EXIM Bank and China Road and Bridge Corporation (CRBC) on the financing and development plan for the new bulk materials port development north of Pointe Noire.

Advancement of the new port development could provide a key catalyst in allowing the Zanaga 12Mtpa Stage One development project to derisk and proceed towards seeking finance.

CRBC has confirmed to the Zanaga Project team that it is engaged in discussions with Chinese funding institutions on the development of the New Mineral Port at Pointe-Indienne. ZIOC confirms that a non-binding LOI has been provided to CRBC by Jumelles’ subsidiary, MPD Congo and four other mining companies to support the development of this port; such LOI outlines the need to hold discussions with CRBC to determine an economically and technically viable development of the new port in alignment with the needs of the mining companies.

### **Power**

The Project Team are engaging on a variety of solutions for off-grid power suitable for the EPP project, including a particular focus on sourcing a solar power solution combined with fuel and or battery backup power.

As regards the staged 30Mtpa Project the strategy is to connect the Project to the national network. The Project’s 100MW power requirement would be supplied by existing and planned power generation capacity in the country, particularly the Mourala dam project and the different dam projects in the Louessé valley (close to Mossendjo).

Power would be delivered to the mine site through two connection points to the current 220kV transmission network within 160km and 200km of a proposed new transmission line to the east and south of the mine site respectively. The Zanaga Project team has been engaging with potential IPPs and Government departments in order to develop a power supply for the Project. The team will be conducting further work during the remainder of 2018 on the potential for a power solution to be defined.

The Project’s Stage Two ramp up to 30Mtpa is expected to increase power demand to approximately 230MW at the mine site and 16MW for the Project’s facilities at the proposed new port. The increased mine site demand is sufficient to support independent power generation from locally available energy sources and we will plan this development in coordination with other planned regional power infrastructure developments.

The Project Team have also been working with a number of third parties to investigate the potential for optimisation of the power solution designed for the staged 30Mtpa Project outlined in the 2014 Feasibility Study. A number of projects in the RoC are under investigation and could form part of the power solution for the Project. In addition, a number of areas of optimisation of the initial design are under investigation today.

## Permitting

In November 2017 ZIOC announced that the Zanaga Project had been awarded an Environmental Permit by the Ministry of Environment of the RoC. The Environmental Permit covers the Zanaga Project's first phase of development pursuant to its Mining Licence granted in August 2014, as outlined in the Zanaga Project's Feasibility Study.

The receipt of the Environmental Permit was a significant milestone in the advancement of the Zanaga Project, together with the Zanaga Project's Mining Licence granted in August 2014, and Mining Convention (promulgated as a law of the RoC, following ratification by the Parliament of the RoC and publication in the Official Gazette in May 2016).

## Product Pricing for benchmark iron ore products (Delivered to North China Port)

As part of the work being undertaken by the Zanaga Project Team, close attention is paid to prices which iron ore products currently achieve. The following Table includes the prices and premiums that are available where iron ore is beneficiated so as to produce a high grade pellet feed concentrate. The Table also illustrates the prices and premiums that can be achieved by converting high grade pellet feed concentrate into pellets, using conventional pelletisation processes.

	Average Price (last 12 months)	Price premium per tonne (above 62% Fe Benchmark Iron Ore Product)	
62% Fe CFR Benchmark Iron Ore Product	US\$67.5	–	–
65% Fe CFR Pellet Feed Concentrate Premium	US\$87.2	US\$19.8	29.3%
Pellet Premium (65% Fe)	US\$131.9	US\$64.5	95.6%

Source: Beijing CU Steel, 26 June 2018

This information is purely by way of illustration of the current situation in the world market for iron ore. The extent to which production from the Zanaga Project could achieve comparable prices and premiums is uncertain and speculative. Moreover, there is no certainty what the level and structure of prices and premiums would be at the time that the Zanaga Project is developed.

## Next Steps

The Project Team remains encouraged by improving iron ore market conditions for premium products and the support this provides to advancing the Zanaga Iron Ore Project.

During 2018, the Zanaga Project Team will be progressing a number of important value-adding activities. Advancement of the EPP Project's product test work and logistical solutions is a key near term objective and the Company intends to provide further updates on its study work in H2 2018 as milestones are achieved. In addition, the team will be further assessing the opportunity for potential reductions to capital and operating costs of the 30Mtpa staged development project.

## Financial Review

### Results from operations

The financial statements contain the results for the Group's seventh full year of operations following its incorporation on 19 November 2009. The Group made a total comprehensive loss in the year of US\$1.4m (2016: total comprehensive loss US\$3.06m). The total comprehensive income for the year comprised:

	2017 US\$000	2016 US\$000
General expenses	(943)	(1,257)
Net foreign exchange (loss)/gain	366	(1,083)
Share-based payments	–	(2)
Share of loss of associate (including impairment by associate)	(824)	(619)
Interest income	8	16
Loss before tax	(1,393)	(2,945)
Tax	–	(15)
Currency translation	52	(103)
Share of other comprehensive income of associate –foreign exchange	(48)	7
Total comprehensive income	(1,389)	(3,056)

General expenses of US\$0.9m (2016: US\$1.3m) consists of US\$0.4m professional fees (2016: US\$0.2m), US\$0.3m Directors' fees (2016: US\$0.3m) and US\$0.2m (2016: US\$0.8m) of other general operating expenses.

The share-based payment charge reflects the expense associated with the grant of share options to ZIOC's Directors and senior managers under ZIOC's long-term incentive plan ("LTIP") and to the expense associated with the grant of share options to three of ZIOC's consultants. Further details of the LTIP and share options granted can be found in the notes to the financial statements.

The share of loss of associate reflected above relates to ZIOC's investment in the Project, through the Jumelles group, which, generated a loss of US\$1.6m in the year to 31 December 2017 (2016: loss US\$1.2m). During the year Jumelles spent a net US\$1.7m (2016 US\$1.2m) on exploration, net of a currency translation loss US\$0.1m (2016: gain US\$0.07m).

### Financial Position

ZIOC's Net Asset Value (NAV) of US\$41.3m (2016: US\$42.6m) comprises of US\$37.6m (2016: US\$37.8m) investment in Jumelles, US\$3.7m (2016: US\$4.9m) of cash balances and US\$0.3m (2016: US\$0.05m net current liabilities) of other net current liabilities.

	2017 US\$000	2016 US\$000
Investment in Associate	37,589	37,873
Fixed Assets	–	–
Cash	3,721	4,852
Net current assets/(liabilities)	(27)	(53)
Net assets	41,283	42,672

### Cost of investment

The Investment in Associate relates to the carrying value of the investment in Jumelles which as at 31 December 2017 continued to own 100% of the Project. During 2017, under the existing 2017 Funding Agreement between the Company and Glencore, the Company contributed a further US\$0.6m (2016: US\$0.7m). Though a long term project, in the light of currently forecast market conditions, the carrying value of the exploration asset continues to be held in Jumelles at US\$80m (2016 US\$80m). The Company accounts for 50% less one share of Jumelles.

As at 31 December 2017, Jumelles had aggregated assets of US\$81.9m (2016: US\$82.6m) and aggregated liabilities of US\$0.8m (2016: US\$0.8m). Assets consisted of US\$80.0m (2016: US\$80m) of capitalised exploration assets, US\$1.5m (2016: US\$1.8m) of other fixed assets, US\$0.3m cash (2016: US\$0.7m) and

US\$0.1m other assets (2016: US\$0.1m). Net of a currency translation loss of US\$0.1m (2016: gain US\$0.1m) a net total of US\$1.6m (2016: US\$1.2m) of exploration costs were capitalised during the year.

#### **Cash flow**

Cash balances decreased by US\$1.1m during 2017 (2016 decrease US\$2.8m), net of interest income US\$0.01m (2016 US\$0.02m) and a foreign exchange gain of US\$0.36m (2016 loss US\$1.08m) on bank balances held in UK Sterling. Additional investment in Jumelles required under the 2017 Funding Agreement (outline details in Note 1 to the financial statements) utilised US\$0.6m (2016: US\$0.7m) and operating activities utilised US\$0.5m (2016: US\$1.1m).

#### **Fundraising activities**

There were no fundraising activities during 2017 (2016: nil).

## Reserves & Resource Statement

The Zanaga Project has defined a 6.9bn tonne Mineral Resource and a 2.1bn tonne Ore Reserve, reported in accordance with the JORC Code (2012), and defined from only 25km of the 47km orebody identified.

### Ore Reserve Statement

The Ore Reserve estimate (announced by the Company on 30 September 2014) was prepared by independent consultants, SRK Consulting (UK) Ltd ("SRK") and is based on the 30Mtpa Feasibility Study and the 6,900Mt Mineral Resource (announced by the Company on 8 May 2014).

As stipulated by the JORC Code, Proven and Probable Ore Reserves are of sufficient quality to serve as the basis for a decision on the development of the deposit. Based on the studies performed, a mine plan was determined in 2014 to be technically achievable and economically viable.

Ore Reserve Category	Tonnes (Mt <sub>Dry</sub> )	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P (%)
Proved	770	37.3	35.1	4.7	0.04
Probable	1,300	31.8	44.7	2.3	0.05
<b>Total</b>	<b>2,070</b>	<b>33.9</b>	<b>41.1</b>	<b>3.2</b>	<b>0.05</b>

Notes:

Long term price assumptions are based on a CFR IODEX 62% Fe forecast of 60 US\$/dmt (97 US\$/dmtu at 62% Fe) with adjustments for quality, deleterious elements, moisture and freight.

Discount Rate 10% applied on an ungeared 100% equity basis

Mining dilution ranging between 5% and 6%

Mining losses ranging between 1% and 5%

Note: The full Ore Reserve Statement is available on the Company's website ([www.zanagairon.com](http://www.zanagairon.com))

### Mineral Resource

Classification	Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P (%)	Mn (%)	LOI (%)
Measured	2,330	33.7	43.1	3.4	0.05	0.11	1.46
Indicated	2,460	30.4	46.8	3.2	0.05	0.11	0.75
Inferred	2,100	31	46	3	0.1	0.1	0.9
<b>Total</b>	<b>6,900</b>	<b>32</b>	<b>45</b>	<b>3</b>	<b>0.05</b>	<b>0.11</b>	<b>1.05</b>

Reported at a 0% Fe cut-off grade within an optimised Whittle shell representing a metal price of 130 US\$/dmtu. Mineral Resources are inclusive of Reserves. A revised Mineral Resource, prepared in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition) was announced on 8 May 2014 and is available on the Company's website ([www.zanagairon.com](http://www.zanagairon.com)).

Note: The figures shown are rounded; they may not sum to the subtotals shown due to the rounding used.

The Mineral Resource was estimated as a block model within constraining wireframes based upon logged geological boundaries. Tonnages and grades have been rounded to reflect appropriate confidence levels and for this reason may not sum to totals stated.

### Geological Summary

The Zanaga Iron Ore deposit is located within a North-South oriented (metamorphic) Precambrian greenstone belt in the eastern part of the Chaillu Massif in South Western Congo. From airborne geophysical survey work, and morphologically, the mineralised trend constitutes a complex elongation in the North-South direction, of about 48 km length and 0.5 to 3 km width.

The ferruginous beds are part of a metamorphosed, volcano-sedimentary Itabirite/BIF and are inter-bedded with amphibolites and mafic schists. It exhibits faulted and sheared contacts with the crystalline basement. As a result of prolonged tropical weathering the BIF has developed a distinctive supergene iron enrichment profile.



At surface there is sometimes present a high grade (+60% Fe) canga of apparently limited thickness (<5m) capping a discontinuous, soft, high grade, iron supergene zone of structure-less hematite/goethite of limited thickness (<7m). The base of the high grade supergene iron zone grades quickly at depth into a relatively thick, leached, well-weathered to moderately weathered friable hematite Itabirite with an average thickness of approximately 25 metres and grading 45-55% Fe.

The base of the friable Itabirite zone appears to correlate with the moderately weathered/weakly weathered BIF boundary, and fresh BIF comprises bands of chert and magnetite/grunerite layers.

### **Competent Persons**

The statement in this report relating to Ore Reserves is based on information compiled by Mr Gabor Bacsfalusi who is a Chartered Professional Member of the Australasian Institute of Mining and Metallurgy. He is a mining engineer and Principal Consultant of SRK Consulting (Canada) Inc. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012). The Competent Person, Mr Gabor Bacsfalusi, confirms that the historical (2014) Ore Reserve Estimate is accurately reproduced in this Annual Report and given his consent to the inclusion in the report of the matters based on his information in the form and context within which it appears. For the avoidance of doubt, SRK confirms that it has not undertaken any further additional technical work subsequent to publication of the 2016 Annual Report.

The information in the Report that relates to Mineral Resources is based on information compiled by Malcolm Titley, BSc MAusIMM MAIG, of CSA Global (UK) Ltd. Malcolm Titley takes overall responsibility for the Report as Competent Person. He is a Member of the Australasian Institute of Mining and Metallurgy ("AUSIMM") and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the JORC Code. The Competent Person, Mr Malcolm Titley, has reviewed this Mineral Resource statement and given his permission for the publication of this information in the form and context within which it appears.

### **Definition of JORC Code**

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012) as published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia.

## **Principal Risks & Uncertainties**

The principal business of ZIOC currently comprises managing ZIOC's interest in the Zanaga Project, including the Jumelles group, and monitoring the development of the Project and engaging in discussions with potential investors. The principal risks facing ZIOC are set out below. Risk assessment and evaluation is an essential part of the Group's planning and an important aspect of the Group's internal control system.

### **Risks relating to the agreement with Glencore and development of the Zanaga Project**

The Zanaga Project is majority controlled at both a shareholder and Director level by Glencore. The ability of the Company to control the Zanaga Project and its operations and activities, including the future development of the Project (including any variant such as an EPP development) and the future funding requirements of Jumelles, is therefore limited.

The future development of the mine and related infrastructure (including any variant such as an EPP development) will be determined by the Jumelles Board. There can be no certainty that the Jumelles Board will approve the construction of the mine and related infrastructure or any variant thereof such as an EPP development, including the taking of preparatory steps associated with the construction of the mine and related infrastructure, such as front end engineering and design, or the undertaking of work needed to assess the viability of an EPP development or any component part of an EPP development.

### **Risks relating to future funding of the Zanaga Project**

Under the Joint Venture Agreement between the Company, Glencore and Jumelles of 3 December 2009, as amended (the "JVA"), there is no obligation on the Company or Glencore to provide further funding to Jumelles. The Company and Glencore have reached agreement on a work programme and funding of the Zanaga Project for 2018. As such agreement relates to 2018, there is a risk that after 31 December 2018 Jumelles may be subjected to funding constraints and this could have an adverse impact upon the Project. Moreover, discretionary amounts are contained in the 2018 work programme and budget; these require the joint approval of ZIOC and Glencore. It is possible that as regards certain items, joint approval would not be forthcoming.

### **Risks relating to iron ore prices, markets and products**

The ability to raise finance for the Project is largely dependent on movements in the price of iron ore. Iron ore prices have historically been volatile and are primarily affected by the demand for and price of steel and the level of supply of iron ore. Such prices are also affected by numerous other factors beyond the Company's and the Jumelles group's control, including the relative exchange rate of the U.S. dollar with other major currencies, global and regional demand, political and economic conditions, production levels and costs and transportation costs in major iron ore producing regions.

While it is anticipated that there will be a stabilisation of iron ore prices in the global market for iron ore, the timing of such stabilisation and the level of iron ore prices which eventually emerges is uncertain. Although the 2014 FS identifies the product from the Project and the potential demand for such product within a range of iron ore prices, there are no assurances that the demand for the Project's product will be sufficient in quantity or in price to ensure the economic viability of the Project or to enable finance for the development of the Project to be raised. Furthermore, the range of iron ore prices in the FS will need to be reviewed so as to reflect changed market conditions and changed expectations relating to the supply and demand for iron ore.

### **Risks relating to an EPP**

There is currently an initiative to investigate the possibility of a low-cost small scale start-up, using existing infrastructure, focussing on a standard 62% Fe benchmark iron ore product or a high grade 65% Fe pellet feed iron ore product that would involve simple 'processing' applications. Separately, the possibility of a low-cost small scale start-up involving the production of a pellet feed concentrate and 'cold pelletisation' process, based on new and relatively untested cold pelletisation technology, is also being investigated. There is a risk that such start-ups are found not to be viable or are not proceeded with for other reasons.

## **Pelletising Test Results and confirmatory testing**

The purpose of the pelletising test work carried out was to test sizing and processing techniques to produce a client defined target concentrate, which, with the application of novel cold binding technologies, would be capable of producing transportable pellets or briquettes that conform to international marketplace accepted chemical and physical parameters.

Over a seven month period, various processing techniques were tested to achieve the target grade stipulated by the client. As part of the test work, pellets with varying binder compositions were tested for their RDI characteristics partly at a European steel mill and partly at a certified laboratory in Germany. The results of the latest three batches of pellets with slightly different binder compositions, tested by a recognised laboratory in Germany, all produced positive results with two of the three samples returning results that exceeded the project targets.

The steel industry is notoriously cautious in adopting new technologies so further work will be required for the full acceptance of this product. A leading British Institute which has worked with the Zanaga Project Team has recommended that as a next step three confirmatory batches of ~20kg each be prepared from the bulk Zanaga concentrate using the recently successful polymer binder formula. It is the view of the Company that two of the batches should be sent for confirmatory testing by a European steel mill and one batch to the certified laboratory in Germany.

While it is hoped that any such confirmatory test work on the three new batches of pellets would be in line with the already obtained results of the latest three batches of tested pellets, mentioned above, the outcome of such confirmatory tests cannot be predicted and it is possible that the results might produce a different outcome. Depending on such confirmatory test work proceeding, it is likely that this confirmatory test work would be carried out and completed within the period of approximately four to six weeks. If the confirmatory tests are positive, a further programme of work involving, for example, testing of larger batches and engagement with steel mills and others, would need to be undertaken and this could be a relatively lengthy process and involve additional costs.

## **Risks relating to financing the Zanaga Project**

Any decision of the Jumelles Board to proceed with construction of the mine and related infrastructure (or any variant such as a low capital cost, small scale start-up EPP project) is itself dependent upon the ability of Jumelles to raise the necessary debt and equity to finance such construction and the initial operation of the mine (or any variant such as a low-cost small scale start-up). Jumelles may be unable to obtain debt and/or equity financing in the amounts required, in a timely manner, on favourable terms or at all and should this occur, it is highly likely to pose challenges to the proposed development of the Zanaga Project and the proposed timeline for its development. Moreover, the global credit environment may pose additional challenges to the ability of Jumelles to secure debt finance or to secure debt finance on acceptable terms, including as to rates of interest.

## **Risks relating to financing of the Company**

The Company will not generate any material income until the first stage of the Project has been constructed and mining and export of the iron ore has successfully commenced at commercial volumes. In the meantime the Company will continue to expend its cash reserves. Should the Company seek to raise additional finance, it may be unable to obtain debt and/or equity financing in the amounts required, in a timely manner, on favourable terms or at all.

If construction of the mine and related infrastructure proceeds (including any preparatory steps associated with the construction of the mine and related infrastructure) or any small scale start-up proceeds, and ZIOC elects to fund its pro rata equity share of construction capital expenditure, there is no certainty as to its ability to raise the required finance or the terms on which such finance may be available.

If ZIOC raises additional funds (including for the purpose of funding the construction of the Project or any part of the Project) through further issuances of securities, the holders of ordinary shares could suffer significant dilution, and any new securities that ZIOC issues could have rights, preferences and privileges superior to those of the holders of the ordinary shares.

If the Company fails to generate or obtain sufficient financial resources to develop and operate its business, this could materially and adversely affect the Company's business, results of operations, financial condition and prospects.

### **Risk relating to Ore Reserves estimation**

Ore Reserves estimates include 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 Reserve estimates are by their nature imprecise and depend, to a certain extent, upon statistical inferences and assumptions which may ultimately prove unreliable. Estimated mineral reserves or mineral resources may also have to be recalculated based on changes in iron ore or other commodity prices, further exploration or assessment or development activity and/or actual production experience.

### **Host country related risks**

The operations of the Zanaga Project are located mainly in the RoC. These operations will be exposed to various levels of political, regulatory, economic, taxation, environmental and other risks and uncertainties. As in many other countries, these (varying) risks and uncertainties can include, but are not limited to: political, military or civil unrest; fluctuations in global economic and market conditions impacting on the economy; terrorism; hostage taking; extreme fluctuations in currency exchange rates; high rates of inflation; labour unrest; nationalisation; changes in taxation; illegal mining; restrictions on foreign exchange and repatriation. In addition, the RoC is an emerging market and, as a result, is generally subject to greater risks than in the case of more developed markets.

HIV/AIDS, malaria and other diseases are prevalent in the RoC and, accordingly, the workforce of the ZIOC group and of the Jumelles group will be exposed to the health risks associated with the country. The operating and financial results of such entities could be materially adversely affected by the loss of productivity and increased costs arising from any effect of HIV/AIDS, malaria and other diseases on such workforce and the population at large.

Weather conditions in the RoC can fluctuate severely. Rain storms, flooding and other adverse weather conditions are common and can severely disrupt transport in the region where the Jumelles group operates and other logistics on which the Jumelles group is dependent.

The host country related risks described above could be relevant both as regards day-to-day operations and the raising of debt and equity finance for the Project. The occurrence of such risks could have a material adverse effect on the business, prospects, financial condition and results of operations of the Company and/or the Jumelles group.

### **Risks relating to the Project's licences and the regulatory regime**

The Project's Mining Licence was granted in August 2014 and a Mining Convention has been entered into. With effect from 20 May 2016, the Zanaga Mining Convention has been promulgated as a law of the RoC, following ratification by the Parliament of the RoC and publication in the Official Gazette.

The holder of a Mining Licence is required to incorporate a Congolese company to be the operating entity and the Congolese Government is entitled to a free participatory interest in projects which are at the production phase. This participation cannot be less than 10%. Under the terms of the Mining Convention, there is a contingent statutory 10% free participatory interest in favour of the Government of the RoC as

regards the mine operating company and a contingent option for the Government of the RoC to buy an additional 5% stake at market price.

The granting of required approvals, permits and consents may be withheld for lengthy periods, not given at all, or granted subject to conditions which the Jumelles group may not be able to meet or which may be costly to meet. As a result, the Jumelles group may incur additional costs, losses or lose revenue and its business, result of operations, financial condition and/or growth prospects may be materially adversely affected. Failure to obtain, renew, enforce or comply with one or more required approvals, permits and consents could have a material adverse effect on the business, prospects, financial condition and results of operations of the Company and/or the Jumelles group. Mitigation of such risks is in part dependent upon the terms of the Mining Convention and compliance with its terms.

### **Transportation and other infrastructure**

The successful development of the Project depends on the existence of adequate infrastructure and the terms on which the Project can own, use or access such infrastructure. The region in which the Project is located is sparsely populated and difficult to access. Central to the Zanaga Project becoming a commercial mining operation is access to a transportation system through which it can transport future iron ore product to a port for onward export by sea. In order to achieve this it will be necessary to access a port at Pointe-Indienne, which is still to be constructed. The nature and timing of construction of the proposed new port are still under discussion with the government of the RoC and other interested parties. In relation to the pipeline and Project facilities at the proposed new port and (to the extent needed) other infrastructure, the necessary permits, authorisations and access, usage or ownership rights have not yet been obtained.

Failure to construct the proposed pipeline and/or facilities at the proposed port and/or other needed infrastructure or a failure to obtain access to and use of the proposed port and/or other needed infrastructure or a failure to do this in an economically viable manner or in the required timescale could have a material adverse effect on the Project.

The availability of reliable and continuous delivery of sufficient quantity of power to the Project at an affordable price will also be a significant factor on the costs at which iron ore can be produced and transported to the proposed port and will impact on the economic viability of the Project.

Reliable and adequate infrastructure (including an outlet port, roads, bridges, power sources and water supplies) are important determinants which affect capital and operating costs and the ability of the Jumelles group to develop the Project. Failure or delay in putting in place or accessing infrastructure needed for the development of the Zanaga Project could have a material adverse effect on the business, prospects, financial condition and results of operations of the Company and/or the Jumelles group.

### **Risks associated with access to land**

Pursuant to the laws of the RoC, mineral deposits are the property of the government with the ability to purchase surface rights. Generally speaking, the RoC has not had a history of native land claims being made against the state's title to land. There is no guarantee, however, that such claims will not occur in the future and, if made, such claims could have a deleterious effect on the progress of development of the Project and future production.

The Mining Convention envisages that the RoC will carry out a process to expropriate the land required by the Zanaga Project and place such land at the disposal of the holder of the Mining Licence in order to build the mine and the infrastructure, including the pipeline, required for the realisation of the Zanaga Project. This means that the rights of the Jumelles company which holds the Mining Licence to the relevant land will be subject to negotiation between the Congolese government and such company. Alternatively, if the land is not declared DUP (i.e. is expropriated by the State under its sovereign powers) then the Jumelles group will have to reach agreement with the local land owners which may be a more time consuming and costly process.

### **Risks relating to timing**

Any delays in (i) obtaining rights over and access to land and infrastructure (ii) obtaining the necessary permits and authorisations (iii) the construction or commissioning of the mine, the pipeline or facilities at the port or power transmission lines or other infrastructure, or (iv) negotiating the terms of access to the port and supply of power and other infrastructure, or (v) raising finance to fund the development of the mine and associated infrastructure, could prevent altogether or impede the development of the Zanaga Project, including the ability of the Zanaga Project to export its future iron ore products whether on the anticipated timelines or at projected volumes and costs or otherwise. Such delays or a failure to complete the proposed infrastructure or the terms of access to infrastructure or to do this in an economically viable manner, could have a material adverse effect on the business, results of operations, financial condition and prospects of the Company and/or the Jumelles group.

### **Environmental risks**

The operations and activities of the Zanaga Project are subject to potential risks and liabilities associated with the pollution of the environment and the disposal of waste products that may occur as a result of its mineral exploration, development and production, including damage to preservation areas, over-exploitation and accidental spills and leakages. Such potential liabilities include not only the obligation to remediate environmental damage and indemnify affected third parties, but also the imposition of court judgments, administrative penalties and criminal sanctions against the relevant entity and its employees and executive officers. Awareness of the need to comply with and enforcement of environmental laws and regulations continues to increase. Notwithstanding precautions taken by entities involved in the development of the Project, breaches of applicable environmental laws and regulations (whether inadvertent or not) or environmental pollution could materially and adversely affect the financial condition, business, prospects and results of operations of the Company and/or the Jumelles group.

### **Health and safety risks**

The Jumelles group is required to comply with a range of health and safety laws and regulations in connection with its business activities and will be required to comply with further laws and regulations if and when construction of the Project commences and the mine goes into operation. A violation of health and safety laws relating to the Project's operations, or a failure to comply with the instructions of the relevant health and safety authorities, could lead to, amongst other things, a temporary shutdown of all or a portion of the Project's operations or the imposition of costly compliance measures. If health and safety authorities require the Project to shut down all or a portion of its operations or to implement costly compliance measures, whether pursuant to applicable health and safety laws and regulations, or the more stringent enforcement of such laws and regulations, such measures could have a material adverse effect on the financial condition, business, prospects, reputation and results of operations of the Company and/or the Jumelles group.

### **Risks relating to third party claims**

Due to the nature of the operations to be undertaken in respect of the development of the Zanaga Project, there is a risk that substantial damage to property or injury to persons may be sustained during such development. Any such damage or injury could have a material adverse effect on the financial condition, business, prospects, reputation and results of operations of the Company and/or the Jumelles group.

### **Risks relating to outsourcing**

The FS envisages that certain aspects of the Zanaga Project will be carried out by third parties pursuant to contracts to be negotiated with such third parties. There is a risk that agreement might not be reached with such third parties or that the terms of any such agreement are more stringent than currently anticipated; this could adversely impact upon the Project and/or the proposed timescale for carrying out the Project.

### **Fluctuation in exchange rates**

The Jumelles group's functional and reporting currency is the U.S. dollar, and most of its in country costs are and will be denominated in CFA francs and Euros. Consequently, the Jumelles group must translate the CFA

franc and Euro denominated assets and liabilities into U.S. dollars. To do so, non-U.S. dollar denominated monetary assets and liabilities are translated into U.S. dollars using the closing exchange rate at the balance sheet date. Consequently, increases or decreases in the value of the U.S. dollar versus the Euro (and consequently the CFA franc) and other foreign currencies may affect the Jumelles group's financial results, including its assets and liabilities in the Jumelles group's balance sheets. These factors will affect the financial results of the Company. In addition, ZIOC holds the majority of its funds in Pounds Sterling, and incurs the majority of its corporate costs in Pounds Sterling, but its contributions to funding the Jumelles group in 2016 are calculated in U.S. dollars. Consequently, any fluctuation in exchange rates between Pounds Sterling versus the U.S. dollar or the Euro, could also adversely affect the financial results of the Company.

### **Cash resources**

The Company has limited cash resources. Although the Company has taken steps to conserve its cash resources, there is a risk that depletion of such cash resources will adversely affect the Company. Continuing volatile and uncertain economic conditions in the global iron ore market means that there can be no certainty as to when the Zanaga resource is likely to be developed. The difficult prevailing economic conditions also impact upon the ability of the Jumelles group to raise new finance for the project. The Company's cash resources will come under increasing pressure unless a more benign investment and trading climate materialises in the foreseeable future. As to when such a climate might materialise, there is still a lack of consensus.

## Corporate Social Responsibility

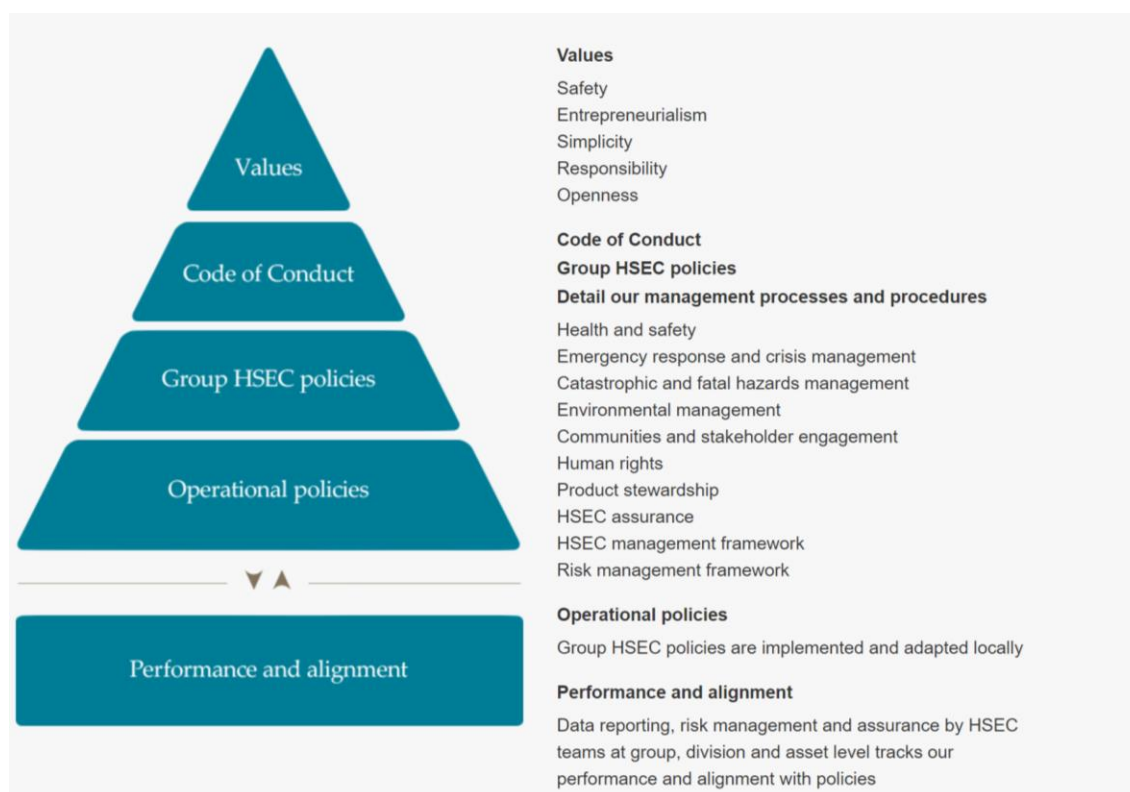
### Why is corporate social responsibility important to Zanaga?

Corporate social responsibility (“CSR”) is integral to the way that a company conducts its business. ZIOC’s licence to operate, access to finance, ability to attract and retain the right employees and ability to maintain good relations with all stakeholders are all closely linked to the manner in which ZIOC conducts its business.

From the early days of exploration, ZIOC developed a basic HSEC management system based on the principles of ISO 14001 and the IFC’s Performance Standards for the extractive industry. This ensured a seamless transition to the Xstrata, and subsequently the Glencore group’s, systems when they took a managing stake in the Project.

### Glencore Group’s Policies

The Project’s approach to corporate responsibility is governed by Glencore group’s Framework for HSEC management, which is based on the following structure:



Glencore’s Values statement includes the following commitment with respect to corporate social responsibility:

### *Sustainability as standard*

We believe that our long-term success requires us to prioritise health and safety and environmental management as well as the welfare of all our workers, contribute to the development and well-being of the communities in which we work, and engage in open dialogue with our stakeholders.

### *Safety*

Our first priority in the workplace is to protect the health and well-being of all our workers. We take a proactive approach to health and safety; our goal is continuous improvement in the prevention of occupational disease and injuries.

### *Responsibility*



We recognise that our work can have an impact on our society and the environment. We care profoundly about our performance in compliance, environmental protection, human rights and health and safety.

### *Openness*

We value relationships and communication based on integrity, co-operation, transparency and mutual benefit, with our people, our customers, our suppliers, governments and society in general.

### **Management systems**

The Zanaga Project operates Health Safety Environment and Community management systems to practice management systems that conform to the overall Glencore group's framework. The system is risk based to address all aspects of the Project's activities and includes regular reporting of developments and progress to ensure that management is able to monitor performance. A quarterly report is produced by the management team for the Project's managers, the shareholders of Jumelles and the RoC's state representatives. This details the Project's activities and incorporates information about its environmental, health and safety performance as well as details of local stakeholder and community engagement activities.

### **Key performance indicators**

- No Lost Time Injuries were recorded in 2017. This is an exceptional result. A total of 42 safety and JSA (Job Safety Analysis) meetings were held during the year as part of the proactive program.
- No cases of medical and restricted work-related treatment in 2017 and no MTI incidents were reported in 2017
- Health and safety is a natural priority for the Project. Every incident, including very minor ones, is recorded in a quarterly report written by the Project's management team and forwarded to state representatives and shareholders.
- At the end of 2017 the Zanaga project achieved a total of 2037 days without any accident
- No Restricted Work Injury was recorded during 2017, and no Lost Time Injuries occurred. This is an excellent result for the Project, even taking into consideration the reduction in activity at the mine site. The focus for the Health and Safety programme remains on the implementation of the Fatal Hazard Protocols and the 10 Golden Rules
- During 2017, the Project provided financial support to nurses working at Léfoutou health centre and to teachers' assistants via the village parents-and-teachers associations to cover the resource gap in nurse and teacher capacity at Léfoutou health centre and in the schools of the villages surrounding the project
- Approximately US\$11,800 was spent as part of the Project's commitment to communities and to facilitate access to quality care for the populations present in the mining concession by paying an additional indemnity to the salaries paid by Council and Departmental management; Contributing to the purchase of medicines in collaboration with the Departmental Health Department, and additional expenses including 2400 litres of diesel and an ambulance.
- During 2017, 124 community communication meetings took place with approximately 600 local stakeholders
- Another HIV/AIDS awareness outreach campaign was undertaken in 2017 to increase the awareness of the HIV prevention programme. The HIV/AIDS awareness outreach campaign sessions were attended by 25 employees including contractors
- MPD Congo took part in the World HIV Awareness day in the villages around the camp. As a result of this communication effort, over 3,108 condoms were distributed at the work place and in the eight villages within the project area over 2017

- CFA3.6m (US\$27,200) was spent as part of the Project's commitments to provide access to the aeroplane runway at the Mbouyi aerodrome

### **The Project's Social and Environmental Impact Assessment**

In November 2017 the Zanaga Project was awarded an Environmental Permit ("the Environmental Permit") by the Ministry of Environment of the RoC. The Environmental Permit covers the Zanaga Project's first phase of development pursuant to its Mining Licence granted in August 2014, as outlined in the Zanaga Project's Feasibility Study.

A Social and Environmental Impact Assessment study (SEIA) was lodged with the Ministry of Environment of the RoC in April 2014. Following comments received from the Ministry of Environment an amended SEIA was transmitted in June 2017 which has been approved through the award of the Zanaga Project's Environmental Permit signed on 6 November 2017. This is an excellent result for the Project Team.

### **Management of health and safety incidents**

- No Restricted Work Injury was recorded during 2017, and no Lost Time Injuries occurred. This is an excellent result for the Project, even taking into consideration the reduction in activity at the mine site. The focus for the Health and Safety programme remains on the implementation of the Fatal Hazard Protocols and the 10 Golden Rules

### **Risk Management Training**

- During the course of 2017, a program of risk identification and management training was rolled out at the exploration camp. This training is designed to improve the quality of the Job Safety Analysis exercises that are conducted prior to any work related tasks. It should also raise awareness of changes that can influence the importance/severity of a particular risk.

### **Supporting local health**

- In September 2015, the health centre at Lefoutou was opened and is now fully functional. MPD Congo equipped the health centre with medical equipment, medical supplies, gave a fully equipped ambulance, paid half of the salaries of the employees of the health centre every month during the whole year 2017, gave 200 litres of fuel every month and provided medical supplies for an amount of US\$5,000 for 2017
- The statistics for the year 2017 of the Lefoutou health center are very encouraging. Per month around 50 persons are treated at the health center.

### **Supporting access to quality water**

From December 2016 to March 2017 MPD Congo realized a water drilling campaign in order to provide access to quality water for the local population. In total seven water drill holes were sunk and fully equipped with pumping facilities in the area of the project.

### **Supporting local education**

As in previous years, the Zanaga Project continues to support the schools and school teachers in the eight villages in the immediate vicinity of the Project camp at Lefoutou. This support has a number of different elements:

- Payment of 50% of the voluntary teachers' salaries
- Supply of school kits for all school children in the eight villages that are within the project area of influence. The company's distribution included (a) Desks, armchairs, chairs pens, pencils, envelopes, chalks, staplers, staples and other office supplies were provided to the eight school offices of the villages within the project vicinity; and (b) eight hundred and sixty (860) school kits to the pupils of the eight schools in the villages of the project area.

**Supporting agriculture development and environment**

- A partnership was signed with the NGO “ID Development” to create a grain shop at Zanaga in order to help the farmers to have easy access to basic agriculture supplies and equipment. 2 storage containers were given by MPD Conogo to the NGO.
- The Inga project in partnership with Kew Garden remains ongoing. This project aims to use local trees to fertilise the soil.

# Corporate Governance

## Board of Directors

The Board of Directors currently comprises three Directors.

### ***Clifford Thomas Elphick***

#### **Non-Executive Chairman**

Clifford Elphick is the founder and CEO of Gem Diamonds Limited, a diamond mining company listed on the Main Market of the London Stock Exchange. Mr Elphick joined Anglo American Corporation in 1986 and was seconded to E Oppenheimer & Son as Harry Oppenheimer's personal assistant in 1988.

In 1990 he was appointed managing director of E Oppenheimer & Son, a position he held until his departure from the company in December 2004. During that time, Mr Elphick was also a director of Central Holdings, Anglo American and DB Investments. Following the buy-out of De Beers in 2000, Mr Elphick served on the De Beers executive committee until 2004. Mr Elphick formed Gem Diamonds Limited in July 2005.

### ***Clinton James Dines***

#### **Non-Executive Director**

Clinton Dines has been involved in business in China since 1980, including senior positions with the Jardine Matheson Group, Santa Fe Transport Group and Asia Securities Venture Capital. In 1988 he joined BHP as their senior executive in China and following the merger of BHP and Billiton in 2001, he became president of BHP Billiton China, a position from which he retired in 2009.

### ***Michael John Haworth***

#### **Non-Executive Director**

Michael Haworth is a partner of Greenstone Capital UK LLP. Mr Haworth has more than 20 years of experience in the sector, including roles as Managing Director at JP Morgan and Head of Mining and Metals Corporate Finance in London.

## **Directors' Report**

The current Directors of the Company (Clifford Elphick, Clinton Dines and Michael Haworth), who were members of the Board at the time of approving the Directors' Report, hereby present their 2017 Annual Report to the shareholders of Zanaga Iron Ore Company Limited, together with the full financial statements for the year ended 31 December 2017.

### **Status and activities**

The Company is a British Virgin Islands Business Company registered under the Territory of the British Virgin Islands, BVI Business Companies Act, 2004. Formation, changes and project ownership history:

- The Company was incorporated on 19 November 2009 with the name Jumelles Holdings Limited.
- On 1 October 2010, the Company changed its name to Zanaga Iron Ore Company Limited.
- On 18 November 2010, the Company's share capital was admitted to trading on the AIM Market ("AIM") of the London Stock Exchange ("Admission").
- At Admission, the Company held 100% of the Project through Jumelles which in turn owns 100% of the Project subject to the minimum 10% free carried interest of the Government of the RoC.
- Following both pre and post Admission development funding received from Xstrata, in 2011, Xstrata exercised its Call Option and acquired a 50% plus one share interest in the Project through Jumelles. The Company retains a 50% less one share interest in the Project through Jumelles ("Minority Stake").
- Following the merger of the Glencore group and Xstrata in 2013 the 50% plus one share shareholder has become Glencore.

The Company's long-term objective is to maximise the value of the Company's sole asset – its Minority Stake in Jumelles – and the Project which is currently focused on managing, developing and constructing a world-class iron ore asset capable of mining, processing, transporting and exporting iron ore at full production.

### **Activities and Business Review**

The Company's performance, activities during the year and future prospects are discussed in the Company Profile, Chairman's Statement and in the Business Review as set out on pages 7-12.

### **The financial risk profile**

The Company's financial instruments comprise cash and various items such as debtors and creditors that arise directly from the Company's operations. The main risks that the Company faces are summarised on pages 17-22. Further details are given in Note 13 to the Financial Statements.

The risks and uncertainties facing the Company are regularly reviewed by the Board and management.

### **Dividends**

No dividends were declared or paid during the year under review (2016: US\$nil).

### **Future funding requirements and going concern basis of preparation**

The directors have prepared the accounts on a going concern basis. At 31 December 2017 the Company had cash reserves of US\$3.7m.

Similar to the Funding Agreement for 2017 project expenditure, Glencore and ZIOC have agreed a Funding Agreement to fund the 2018 Project Work Programme and Budget for the Project of US\$1.3m plus US\$0.22m of discretionary spend dependent on certain workstreams requiring capital. After taking in savings arising from previous years, ZIOC has agreed to contribute towards such work programme and budget an amount comprising US\$0.65m plus 49.99% of all discretionary items approved jointly with Glencore. Ignoring any entitlement to savings, ZIOC's potential contribution to the Project in 2018 is US\$0.76m in total. In the event

that a decision is taken to allocate capital to more extensive product tests or study work additional funding may be required.

The Company's current cash reserves are sufficient to support both the Company's own operating costs and the agreed contribution to the Project set out above for the foreseeable future.

In common with many exploration and development companies in the mining sector, the Company raises funding in phases as its project develops.

If construction of the mine and related infrastructure proceeds (including any preparatory steps associated with the construction of the mine and related infrastructure), and the Company elects to fund its pro rata equity share of construction capital expenditure, it will need to raise further funds. There is no certainty as to the Company's ability to raise the required finance or the terms on which such finance may be available

In addition, any decision of the Jumelles Board to proceed with construction of the mine and related infrastructure (or any variant such as a low-cost small scale start-up) is itself dependent upon the ability of Jumelles to raise the necessary debt and equity to finance such construction and the initial operation of the mine. Jumelles itself may be unable to obtain debt and/or equity financing in the amounts required, in a timely manner, on favourable terms or at all and should this occur, it is highly likely to pose challenges to the proposed development of the Zanaga Project and the proposed timeline for its development.

The Company still believes that once the proposed staged development of the Zanaga project occurs, the Project offers high grade ore at competitive cost, thereby offering an attractive rate of return, at an acceptable level of risk. However, in order to carry out such staged development, it is still the case that substantial capital expenditure will be required both at the prospective mine site and in respect of transportation and other associated infrastructure and for working capital. Revenues from mining are dependent upon such development being financed and taking place. The current state of the global iron ore market means that there can be no certainty as to when Jumelles and the Company are able to raise new finance for the staged development of the Project or when the Zanaga Project is likely to be developed. The difficult prevailing economic conditions also impact upon the ability of Jumelles and the Company to raise new finance for the project.

At a time when the staged development of the Project takes place (or, if viable, a small-scale start-up takes place) the Company will need to obtain additional funding should it decide to elect to fund its share of any such development of the mine. If such staged development continues to be deferred due to unfavourable market conditions, the Company will need at the appropriate time to explore options to raise additional funding, pending the staged development (or, if viable, a small-scale start-up) taking place.

At present, the Company has sufficient financial resources to continue in operational existence for the foreseeable future. For these reasons, the financial statements of the Company have been prepared on a going concern basis.

## **Directors**

Members of the Board who served as Directors throughout 2017 are Clifford Elphick, Michael Haworth and Clinton Dines.

Biographical details of the Directors and the period of each directorship are shown on pages 27 and 32.

Details of Board meetings and Directors' attendance at Board meetings are laid out on pages 32-33.

The Directors' interests in the ordinary shares of the Company as at 31 December 2017 and at the date of signing of this Annual Report are set out on pages 37 and 38 in the Remuneration Report.

## **Directors' remuneration**

A Directors' Remuneration Report, which shareholders will be asked to approve at the Annual General Meeting, can be found on pages 36 - 39.

### Company Secretary

Elysium Fund Management Limited is responsible for the provision of company secretarial and related administrative services.

### Indemnities and insurance

The Company maintains Directors' and officers' liability insurance cover, to cover claims made against Directors and officers of the Company, arising out of actions taken in relation to the Company's business and its Admission.

### Corporate governance

Following the Company's Admission to AIM in November 2010, whilst the Company is under no obligation to apply the Financial Reporting Council's UK Corporate Governance Code (the "Code") the Directors have taken measures to apply the principles of the Code so far as is appropriate and practical having regard to the size and nature of the Company. A report on corporate governance can be found on pages 32 - 35.

### Corporate responsibility

The Company places the highest priority on the health and safety of its employees, respect for the environment and active engagement with the local communities in which it operates. A report on corporate responsibility can be found on pages 23 - 26.

### Substantial share interests

As at 31 December 2017, the following interests of 3% or more of the issued ordinary share capital had been notified to the Company:

Funds managed by:	Number of shares	% of share capital
Guava Minerals Limited <sup>1</sup>	88,730,397	31.83%

*1. Clifford Elphick is indirectly interested in these ordinary shares by virtue of his interest as a potential beneficiary in a discretionary trust, which has an indirect interest in these ordinary shares.*

Prior to 2 April 2017, 115,671,186 of the Company's shares were held by Garbet (representing 41.49% of the Company's share capital). Pursuant to a transaction effected on 2 April 2017 Garbet ceased to hold any shares in the Company. As part of such transaction the shares in the Company which were held by Garbet were transferred to Garbet's shareholders and the shareholders of Garbet's holding company, Strata Limited. As a result of such transaction, the following interests of 3% or more of the issued ordinary share capital were notified to the Company:

Shareholder:	shares	capital
Salamanca Trustees (Jersey) Ltd (YR) <sup>1</sup>	13,629,127	4.89%
Leganés Limited	12,513,469	4.49%
Artemis Trustees Limited (Hardwick)	11,916,534	4.27%
AI Holdings Limited	8,706,621	3.12%

*1. Michael Haworth is indirectly interested in these ordinary shares, by virtue of his interest as a potential beneficiary in the discretionary trust which owns these ordinary shares.*

### Policy on payment to suppliers

Amounts due to suppliers and service providers are settled promptly within the terms of the payment, except in cases of dispute.

**Material contracts**

The Company's material contracts are with Glencore (see Note 1 of the Financial Statements on pages 50 - 52 for more details), Liberum Capital Limited, which acts as Nominated Adviser and joint Corporate Broker, Computershare Investor Services (BVI) Limited, which acts as Registrar and Hyposwiss Private Bank Geneva SA, the Company's banker.

**Legal proceedings**

The Company is not engaged in any litigation or claim of material importance, nor, so far as the Directors are aware, is any litigation or claim of material importance pending or threatened against the Company.

**Disclosure of information to Auditors**

The Directors who held office at the date of approval of this Directors' Report confirm that, so far as they are each aware, there is no relevant audit information of which the Company's Auditor is unaware and each Director has taken all the steps that he ought to have taken as a Director to make himself aware of any relevant audit information and to establish that the Company's Auditor is aware of that information.

By order of the Board

**Clifford Elphick**

Non-Executive Director

Ground Floor, Coastal Building  
Wickham's Cay II  
Road Town P.O. Box 2136  
Carrot Bay VG1130 Tortola  
British Virgin Islands  
28 June 2018



## Corporate Governance Report

The Directors recognise the importance of sound corporate governance and the guidelines set out in the Code. Whilst AIM listed companies are, at present, not obliged to comply with the Code, following the Company's Admission to AIM in November 2010 the Directors have taken measures to apply the principles of the Code so far as is appropriate and practical having regard to the size and nature of the Company.

### Board of Directors

As at 31 December 2017, the Board was led by a Non-Executive Chairman, Clifford Elphick. The Board consisted of three Directors throughout the year, all of whom were Non-Executive Directors and held office for the duration of the year. Further details of the Directors and length of directorships are included in the table below.

Name	Nationality	Age	Position	Date of appointment
Clifford Thomas Elphick	South African	57	Non-Executive Chairman	26 November 2009
Michael John Haworth	British	52	Non-Executive Director	26 November 2009
Clinton James Dines	Australian	60	Non-Executive Director	16 August 2010

The biographical profiles of the Directors, which demonstrate their skills and experience, can be found on page 27.

Under the Code, none of the Non-Executive Directors that served during the 2017 financial year would be viewed as independent. However, although Clinton Dines would not be viewed as independent under the Code by virtue of the shares awarded to him under the Company's long-term share incentive scheme, the Directors believe that independence is not a state of mind that can be measured objectively and, given the character, judgement and decision making process of the individual concerned, the Directors believe that Clinton Dines can be considered independent.

Given the current size and level of operational activity of the Company the Board currently considers its composition to be appropriate. The Company reviews the independence of the Directors annually and all new appointments will be made after consideration of the independence of the Company's Directors.

### Election of Directors

As per the Company's Articles of Association, one third of Directors are subject to retirement at each AGM by rotation. In addition, any Director who would not otherwise be required to retire shall retire by rotation at the third AGM after his last appointment or reappointment. A retiring Director shall be eligible for re-election unless he has indicated that he does not wish to stand for re-election.

### Attendance at Board meetings

The Company aims to hold a number of Board meetings per year, in order that the Directors are able to review the exploration and development progress of the Project and all other important issues so as to ensure control is maintained over the Company's affairs. In addition, between these formal meetings there is regular contact between the members of the Board as well as with the Company's consultants, management and the Nominated Adviser and Broker (details of which can be found on page 90). The Directors are kept fully informed of investment, financial and other matters that are relevant to the business of the Company and that should be brought to the attention of the Directors. The Directors also have access to the Company Secretary and, where necessary in the furtherance of their duties, to independent professional advice at the expense of the Company.

The Board considers agenda items laid out in the notice and agenda, which are formally circulated to the Board in advance of a meeting as part of the Board papers and, therefore, Directors may request any

agenda items to be added that they consider appropriate for Board discussion. Additionally, each Director is required to inform the Board of any potential or actual conflicts of interest prior to Board discussion.

The quorum for a Board meeting is two but attendance by all Directors at each meeting is strongly encouraged. Whilst Directors try to arrange their schedules accordingly, non-attendance is unavoidable in certain circumstances. During 2017, six Board meetings were held and one meeting of a sub-committee of the Board. The table below details the number of Board meetings.

	Total	Board meetings	Committee meetings
Clifford Thomas Elphick	7	6	1
Michael John Haworth	7	6	1
Clinton James Dines	6	6	–

Apart from the regular Board meetings, additional meetings will be arranged when necessary to review strategy, planning, operational, financial performance, risk, capital expenditure, human resource and environmental management.

### **Boardroom diversity**

The Directors note the changes to the Code which have come into effect for reporting periods commencing on or after 1 October 2012. Given the level of uncertainty in iron ore markets, and the need to maintain a low cost base, the Company intends to maintain the board composition currently in place. In the event that iron ore markets improve and the Company is able to attract new financing then the diversity of the Board will be addressed through the appointment of new Board members.

### **Directors' shareholdings and dealings**

The interests of the Directors in the share capital of the Company are disclosed in the Directors' Remuneration Report on pages 36 - 39.

The Directors comply with Rule 21 of the AIM Rules for Companies relating to Directors' dealings and take all reasonable steps to ensure compliance by the Company's applicable employees. The Company has adopted and operates a share dealing code for Directors and employees in accordance with the AIM Rules for this purpose.

### **Board committees**

As part of the process of streamlining the operations of the Company and to reduce costs, the committees of the Board have been discontinued. This included the Audit Committee and the Remuneration Committee. As these committees have now been discontinued, the tasks previously undertaken by these committees have now reverted to the Board. Consequently, the Board's responsibilities include the monitoring of the integrity of the financial statements of the Company, including its annual and half yearly reports, interim management statements, preliminary results' announcements and any other formal announcement relating to its financial performance. The Board is also responsible for monitoring the activities of the executive management.

### **External Auditor**

The Board is now also responsible for managing the relationship with the Company's Auditors, including approval of their remuneration and terms of engagement. KPMG LLP was the Company's Auditor since incorporation. Deloitte LLP has now become the Company's auditor. It should be mentioned that Deloitte also audit the accounts of Jumelles.

The Board has continued to be satisfied with the independence and effectiveness of the Auditors and does not at this stage consider it is necessary to require an independent tender process. The Board will

consider this again following publication of the 2017 Annual Report and will keep this under ongoing review.

The Company's Auditor is permitted to provide non-audit services that are not in conflict with Company's Auditor's independence and objectivity. The Board is responsible for ensuring that any non-audit services do not jeopardise this independence and objectivity and given the size and stage of development of the Company do this on a case by case basis.

Auditor's remuneration for the Company's Auditor, Deloitte LLP, for audit services for the year 2017 are US\$64,000 (KPMG 2016: US\$58,000), and US\$Nil for non-audit services (KPMG 2016: US\$Nil).

### **Internal control and risk management**

The Directors have overall responsibility for establishing and maintaining the Company's system of internal control and risk management systems. Internal control systems are designed to meet the particular needs of the Company and the risks to which it is exposed, and, by their very nature, provide reasonable, but not absolute, assurance against material misstatement or loss. The key procedures which have been established to provide effective internal controls are as follows:

- Elysium Fund Management Limited is responsible for the provision of company secretarial duties. The Directors of the Company clearly define the duties and responsibilities of their agents and advisors in the terms of their contracts.
- The Board reviews financial information produced by the administrator on a regular basis.
- The Board monitors the performance of the Company's service providers and their obligations under their agreements with the Company.
- All expenditure is subject to approval in accordance with the Company's accounting policies, procedures and Delegated Financial Authority.

Up until Xstrata's exercise of its Call Option in February 2011, the Board ensured that appropriate internal controls and systems were in place for its investment in its associate, Jumelles, through reviewing risks, delegating financial authorities, employing staff with relevant experience, segregating duties and outsourcing the accounting service. Since Xstrata exercised its Call Option in February 2011 the Jumelles group is included in the Glencore group's internal audit programme.

The Company does not have an internal audit department. Due to the size and nature of the Company it is not felt that there is at this stage a need for the Company to have an internal audit facility. The Board will continue to keep this under ongoing review.

A review of business risks was carried out during 2017 and subsequently. A summary of the principal risks facing the Company can be found on pages 17 - 22.

### **Remuneration Committee**

In view of the discontinuance of the Remuneration Committee, the Remuneration Report on pages 36 - 39 has been produced under the auspices of the Board.

The terms of reference which the Board follows in relation to remuneration can be found on the Company's website at [www.zanagairon.com](http://www.zanagairon.com).

**Relationships with shareholders**

The Code encourages dialogue with institutional shareholders based on the mutual understanding of objectives. The Directors are always available to enter into dialogue with shareholders. All ordinary shareholders will have the opportunity, and indeed are encouraged, to attend and vote at the AGM during which the members of the Board, the Nominated Advisor and Broker will be available to discuss issues affecting the Company. The Board stays abreast of shareholders' views via regular updates from its Nominated Advisor and Broker as to meetings it may have held with shareholders.

## Remuneration report

This report to shareholders for the year ended 31 December 2017 sets out the policies under which Non-Executive Directors are remunerated.

As an AIM listed company this report is not intended to comply with the 2013 regulations applicable to quoted companies covered by the scope of those regulations. Whilst under no obligation to provide a remuneration report, the Board believes it appropriate to continue to do so, and, as a matter of best practice, this report will be subject to an advisory shareholder vote at the AGM.

### Remuneration policy terms of reference

The terms of reference for the Company's remuneration policy, which are reviewed annually, can be found on the Company's website at [www.zanagairon.com](http://www.zanagairon.com).

The key objectives of the remuneration policy are to:

- ensure that members of the executive management of the Company are provided with appropriate incentives to encourage enhanced performance and are, in a fair and responsible manner, rewarded for their individual contributions to the success of the Company;
- review the ongoing appropriateness and relevance of the remuneration policy; and
- approve the design of, and determine targets for, any performance related pay schemes operated by the Company and approve the total annual payments made under such schemes.

The main responsibilities of the Board in relation to remuneration are to:

- determine the framework or broad policy for the remuneration of the Company's Chairman of the Board, the Company Secretary and such other members of the executive management as it is designated to consider. The remuneration of Non-Executive Directors shall be a matter for the Chairman of the Board. No Director or manager shall be involved in any decisions as to their own remuneration;
- review the ongoing appropriateness and relevance of the remuneration policy;
- approve the design of, and determine targets for, any performance related pay schemes operated by the Company and approve the total annual payments made under such schemes; and
- review the design of all share incentive plans for approval by the Board and shareholders. For any such plans, determine each year whether awards will be made, and if so, the overall amount of such awards, the individual awards to senior executives and the performance targets to be used.

### Remuneration policy

The Board, as a whole, establishes the remuneration policy.

### Advice

During the year the Company received legal services from its solicitors, the independent law firm Bryan Cave Leighton Paisner LLP.

### Service contracts and notice periods

The Board consisted of three Directors at the year end, all of whom were Non-Executive Directors for the duration of the year. Further details of the Directors and length of directorships are reflected in the table set out on page 32 in the Corporate Governance section of this Report.

All the Directors are appointed for an indefinite period subject to three months' notice by either party at any time and subject to the Company's Articles of Association.

The service contracts for the Directors are available for inspection by members during normal business hours, at the Company's registered office.

### Non-Executive Directors' remuneration package

The Non-Executive Directors (other than the Chairman) shall be paid by way of fees for their services a sum not exceeding an aggregate of £500,000 per annum or such larger amount as the Company may by resolution of its shareholders determine.

The annual remuneration package, in Sterling, of the Non-Executive Directors who served during the year is detailed below:

Audited	Annual fee	Annual fee Audit Committee	Annual fee HSSE Committee	Annual fee Remuneration Committee	Total annual fee
	£000	£000	£000	£000	£000
Non-Executive Director					
Clifford Elphick	75.0	–	4.0	4.0	83.0
Clinton Dines	50.0	–	7.5	–	57.5
Michael Haworth	50.0	5.0	–	4.0	59.0

*Note : Whilst the Audit Committee, HSSE Committee and Remuneration Committee have been dissolved, the functions and responsibilities still remain and are discharged by the Board; accordingly the fee paid reflects these ongoing duties.*

No Director is entitled to any bonus, pension or other benefits (save as disclosed above or in relation to the long-term incentive scheme as set out below). In the event of termination of appointment, howsoever caused, each Director has agreed that they will not be entitled to any compensation for loss of office as a Director of the Company.

### Directors' shareholdings

The interests of the Directors who served during the year to 31 December 2017 in the share capital of the Company, all of which are beneficial unless otherwise stated, are as follows:

Audited	31 December 2017		31 December 2016	
	Number of shares	% of issued share capital	Number of shares	% of issued share capital
Directors (Share options status 31 December 2017)				
Clifford Elphick <sup>1</sup>	88,730,397	31.83%	88,730,397	31.83%
Michael Haworth <sup>2</sup>	13,629,127	4.89%	115,671,186	41.49%
Clinton Dines <sup>3</sup>	632,330	0.22%	600,000	0.22%

1. Clifford Elphick is indirectly interested in these ordinary shares, which are registered in the name of Guava Minerals Limited, by virtue of his interest as a potential beneficiary in a discretionary trust which has an indirect interest in those ordinary shares.
2. Michael Haworth is indirectly interested in 13,629,127 ordinary shares, by virtue of his interest as a potential beneficiary in a discretionary trust which owns those 13,629,127 ordinary shares.
3. Comprising 430,483 ordinary shares and 201,847 ordinary shares over which options have been granted.

Since 31 December 2017, there have been no changes in the current Directors' interests up to the time of writing of this report.

## Remuneration for the year to 31 December 2017

The emoluments for the Directors who served for the year to 31 December 2017 can be found below:

<b>Audited</b>	<b>Director fee 2017 £000</b>	<b>Other emoluments 2016 £000</b>	<b>Total emoluments 2017 £000</b>	<b>Total emoluments 2016 £000</b>
Director				
Clifford Elphick	83.0	–	83.0	83.0
Clinton Dines	57.5	–	57.5	57.5
Michael Haworth	59.0	–	59.0	59.0
<b>Total in £</b>	<b>199.5</b>	<b>–</b>	<b>199.5</b>	<b>199.5</b>
	<b>US\$000</b>	<b>US\$000</b>	<b>US\$000</b>	<b>US\$000</b>
<b>Total in US\$</b>	<b>257.6</b>	<b>–</b>	<b>257.6</b>	<b>270.3</b>

## LTIP

At its Admission in 2010, the Company approved and implemented a split interest LTIP scheme in order to recruit and retain key officers and employees of the Company and the Company's associate. In recognition of the achievement of key corporate and project milestones since 2012, and to incentivise key employees and consultants to achieve certain new performance targets, the Board approved the grant of 9,027,274 standard share options outside the split interest LTIP scheme to certain Directors, key employees and consultants to the Company.

The 2010 split interest LTIP scheme was discontinued in Q4 2017 following the exercise of all outstanding options by participants in this scheme. These options were exercised over shares which had already been issued in 2010 and which were jointly owned by the two discretionary trusts ("Trusts") established in 2010 for the benefit of current and former employees and officeholders and the relevant participant. The trustee of the Trusts throughout 2017 was Geneva Management Group (BVI) Limited. Upon the exercise of the options, the participants became the sole owner of the shares in which he was interested.

As regards the 9,027,274 standard share options outside the split interest LTIP scheme referred to above, 4,424,503 of these options were exercised in Q1 2018. Consequently, currently there are 4,602,771 standard share options which have not been exercised.

The following is a summary of awards made to Directors of the Company:

<b>Audited</b>	<b>Award Year</b>	<b>Number of shares</b>	<b>Exercise Price</b>	<b>Market price at 31 Dec 2016</b>	<b>Highest and lowest market price in year</b>	<b>Expiry date</b>	<b>Number vested at 31 Dec 2016</b>	<b>Vesting criteria</b>
Director								
Clinton Dines	2010	398,153	£0.0234	£0.06725	£0.07875-0.01425	18 May 2021	398,153	2 (see below)
	2014	201,847	£0.0001	£0.06725	£0.07875-0.01425	29 July 2024	134,566	6 (see below)

All of the options mentioned above were vested and outstanding at the beginning of the year. During the year 2017, in connection with the discontinuance of the split interest LTIP scheme, Clinton Dines exercised options in respect of 398,153 shares (2016: nil).

The total charge to the profit and loss account for the awards made to the Directors in the year to 31 December 2017 was US\$nil (2016: US\$1,581). Further details of the LTIP can be found in Note 11 to the Financial Statements on pages 59 – 61.

By order of the Board

**Clifford Elphick**

Director

28 June 2018



## **Statement of Directors' Responsibilities**

The Directors of Zanaga Iron Ore Company Limited (the "Directors") are responsible for preparing the Annual report and group's financial statements, which are intended by them to give a true and fair view of the state of affairs of the group and of its profit and loss for the period.

The Directors are required by the AIM Rules of the London Stock Exchange (the "AIM Rules") to prepare the group's financial statements in accordance with International Financial Reporting Standards ("IFRSs") as adopted by the EU.

In preparing the group financial statements, the Directors have:

- selected suitable accounting policies and then applied them consistently;
- made judgements and estimates that are reasonable and prudent;
- stated whether they have been prepared in accordance with IFRSs as adopted by the EU; and
- prepared the financial statements on the going concern basis unless it is inappropriate to presume that the group and parent Company will continue in business.

The Directors have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Company and to prevent and detect fraud and other irregularities.

The Directors have decided to prepare voluntarily a Directors' Remuneration Report, which can be found on page 36 -39, in accordance with Schedule 8 to The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 made under the Companies Act 2006, as if those requirements were to apply to the Company.

## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF Zanaga Iron Ore Company

### Report on the audit of the financial statements

#### Opinion

**In our opinion the financial statements:**

- **give a true and fair view of the state of the Group's affairs as at 31 December 2017 and of the Group's loss for the year then ended; and**
- **have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union.**

We have audited the financial statements of Zanaga Iron Ore plc and its subsidiaries (the 'Group') which comprise:

- the consolidated statement of comprehensive income;
- the consolidated balance sheet;
- the consolidated statement of changes in equity;
- the consolidated cash flow statement; and
- the related notes 1 to 14.

The financial reporting framework that has been applied in their preparation is the International Financial Reporting Standards as adopted by the European Union.

#### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the Group and the parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Summary of our audit approach

<b>Key audit matters</b>	The key audit matter that we identified in the current year was: <ul style="list-style-type: none"><li>• The risk of impairment of the investment in associate</li></ul>
<b>Materiality</b>	The materiality that we used for the financial statements was \$US 1,238,000 which was determined on the basis of net assets.
<b>Scoping</b>	Our audit scope included both the Zanaga Iron Ore Company Limited parent and its 100% owned subsidiary, Zanaga UK Services Limited.
<b>First year audit</b>	Deloitte LLP has been appointed auditor for the accounts for the period ending 31 December 2017. This is the first year that we have audited the financial statements.

## Conclusions relating to going concern

We are required by ISAs (UK) to report in respect of the following matters where:

- the directors' use of the going concern basis of accounting in preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the Group's or the parent company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

**We have nothing to report in respect of these matters.**

## Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

### Impairment of the investment in associate

#### Key audit matter description



The carrying value of the investment in associate was \$US 37.6 million as at 31 December 2017 as disclosed in note 6b which is material to the balance sheet and hence considered as a key audit matter. The investment relates solely to the Group's interest in the Jumelles Iron Ore Project which operates in the Democratic Republic of the Congo.

The volatility in expected future prices of commodities (iron ore), foreign exchange rates, production levels, operating costs, discount rates and macro-economic developments require management to exercise significant judgement in determining the associate's future profitability and therefore the investment's carrying value

Management completes an impairment review annually. The outcome of impairment assessments could vary significantly were different assumptions applied. Refer to "Carrying value of investment in associate" within Note 3 *Critical accounting estimates, assumptions and judgements*.

#### How the scope of our audit responded to the key audit matter



We reviewed management's assessment of impairment risk and their assessment of the indicators of impairment and challenged the significant assumptions used.

We sought to identify additional potential indicators of impairment through our review of operational performance and financial results as well as the impact of any significant regulatory changes.

We compared the recorded carrying value to the Group's share of the associate's net assets. We also reviewed the work of the auditor of Jumelles Limited on the risk of impairment of the underlying Zanaga Iron Ore Project exploration and evaluation assets to understand the challenge applied to the significant assumptions used in the impairment model.

We assessed the adequacy of impairment related disclosures in the financial statements, including the key assumptions used and the sensitivity of the financial statements to these assumptions.

**Key observations**

Based on the results of our testing, we concluded that management's assessment of impairment indicators was appropriate.

We found management's disclosures on key assumptions and impairment sensitivities to be appropriate.

### Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Financial statements
<b>Materiality</b>	\$US 1,238,000
<b>Basis for determining materiality</b>	3% of net assets
<b>Rationale for the benchmark applied</b>	The sole activity of the Group is to hold its investment in associate. We consider the approach of using net assets as appropriate given the nature of the investment, which continues to be in the development phase, and the significance of the investment balance to the company.

We have applied a threshold of \$US 61,900 for reporting to the Board of directors, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the board on disclosure matters that we identified when assessing the overall presentation of the financial statements

### An overview of the scope of our audit

The Group is comprised of the following entities:

- Zanaga Iron Ore Company (parent)
- Zanaga UK Services (wholly owned subsidiary)

The Group's sole activity is its investment in the Jumelles Project. The investment is recorded as an asset under the equity accounting method, and the share of losses is recognised in the statement of comprehensive income.

This is the first year that the Group has been audited by Deloitte LLP.

Both the parent company and wholly owned subsidiary were subject to full scope audits. At the group level, we also tested the consolidation.

The entity is in a loss making position and has reported only interest income. We have audited 100% of the net assets. We issued referral instructions to the auditor of Jumelles Limited for the evaluation of the impairment in associate, and reviewed the reporting received.

## Other information

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The directors are responsible for the other information. The other information comprises the information included in the annual report, including the business overview, reserves and resources statement, principal risks and uncertainties, corporate social responsibility, Directors' report, corporate governance, remuneration report, other than the financial statements and our auditor's report thereon.

***We have nothing to report in respect of these matters.***

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

## Responsibilities of directors

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As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Group and the parent company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or the parent company or to cease operations, or have no realistic alternative but to do so.

## Auditor's responsibilities for the audit of the financial statements

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Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: [www.frc.org.uk/auditorsresponsibilities](http://www.frc.org.uk/auditorsresponsibilities). This description forms part of our auditor's report.

## Use of our report

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This report is made solely to the company's members, as a body, in accordance with our engagement letter dated 7 June 2018 and solely for the purpose of meeting the listing requirements of the London Stock Exchange – Alternative Investment Market. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by

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law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

### **Report on other requirements**

#### **Opinion on other matter prescribed by our engagement letter**

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In our opinion the part of the Directors' Remuneration Report described as audited has been properly prepared in accordance with the provisions of the UK Companies Act 2006 as if that Act had applied to the company.

The engagement partner responsible for the audit was Christopher Jones.

**Deloitte LLP**  
Recognised Auditor  
London, UK

28 June 2018

## Consolidated statement of comprehensive Income

for year ended 31 December 2017

	Note	2017 US\$000	2016 US\$000
Administrative expenses		(577)	(2,342)
Share of loss of associate	6b	(824)	(619)
<b>Operating loss</b>	4	<b>(1,401)</b>	<b>(2,961)</b>
Interest income		8	16
<b>Loss before tax</b>		<b>(1,393)</b>	<b>(2,945)</b>
<b>Taxation</b>	5	<b>–</b>	<b>(15)</b>
<b>Loss for the year</b>		<b>(1,393)</b>	<b>(2,960)</b>
<i>Items that will not be reclassified subsequently to profit or loss:</i>			
Share of other comprehensive income of associate – foreign exchange translation		(48)	7
<i>Items that may be reclassified subsequently to profit or loss:</i>			
Foreign exchange translation – foreign operations	6b	52	(103)
<b>Other comprehensive income/(loss)</b>		<b>4</b>	<b>(96)</b>
<b>Total comprehensive loss</b>		<b>(1,389)</b>	<b>(3,056)</b>
<b>(Loss) per share</b>			
Basic (Cents)	12	(0.5)	(1.1)
Diluted Cents)	12	(0.5)	(1.1)

Loss and total comprehensive loss for the year is attributable to the equity holders of the parent company.

The notes on pages 50 - 64 form an integral part of the financial statements.

**Consolidated balance sheet**  
for year ended 31 December 2017

	Note	2017 US\$000	2016 US\$000
<b>Non-current assets</b>			
Property, plant and equipment	6a	–	–
Investment in Associate	6b	37,589	37,873
		<b>37,589</b>	<b>37,873</b>
<b>Current assets</b>			
Other receivables	7	49	60
Cash and cash equivalents	8	3,721	4,852
		<b>3,770</b>	<b>4,912</b>
<b>Total Assets</b>		<b>41,359</b>	<b>42,785</b>
<b>Current liabilities</b>			
Trade and other payables	9	(75)	(113)
<b>Net assets</b>		<b>41,284</b>	<b>42,672</b>
<b>Equity attributable to equity holders of the parent</b>			
Share capital	10	267,012	267,012
Accumulated deficit		(229,055)	(227,662)
Foreign currency translation reserve		3,327	3,322
<b>Total equity</b>		<b>41,284</b>	<b>42,672</b>

The notes on pages 50 - 64 form an integral part of the financial statements.

These financial statements set out on pages 56 - 64 were approved by the Board of Directors on 28 June 2018 and were signed on its behalf by:



**Mr Clifford Elphick**  
**Director**



**Consolidated statement of changes in equity**  
for year ended 31 December 2017

	Share capital US\$000	Accumulated deficit US\$000	Foreign currency translation reserve US\$000	Total equity US\$000
Balance at 1 January 2016	267,010	(224,702)	3,418	45,726
Consideration for share-based payments	2	–	–	2
Loss for the year	–	(2,960)	–	(2,960)
Other comprehensive income	–	–	(96)	(96)
Total comprehensive loss	–	(2,960)	(96)	(3,056)
<b>Balance at 31 December 2016</b>	<b>267,012</b>	<b>(227,662)</b>	<b>3,322</b>	<b>42,672</b>
Balance at 1 January 2017	267,012	(227,662)	3,322	42,672
Consideration for share-based payments	–	–	–	–
Loss for the year	–	(1,393)	–	(1,393)
Other comprehensive income	–	–	4	4
Total comprehensive loss	–	(1,393)	4	(1,389)
<b>Balance at 31 December 2017</b>	<b>267,012</b>	<b>(229,055)</b>	<b>3,327</b>	<b>41,283</b>

## Consolidated cash flow statement

for year ended 31 December 2017

	Note	2017 US\$000	2016 US\$000
<b>Cash flows used in operating activities</b>			
Loss for the year		(1,393)	(2,960)
<i>Adjustments for:</i>		–	–
Depreciation		–	3
Interest receivable		(8)	(16)
Taxation expense		–	15
Decrease/(Increase) in other receivables		11	398
(Decrease)/Increase in trade and other payables		(38)	(21)
Net exchange gain/(loss)		(313)	895
Gain on part sale of project interest		–	–
Share of Loss in associate		824	619
Share-based payments		–	2
Tax paid		–	(27)
<b>Net cash used in operating activities</b>		<b>(917)</b>	<b>(1,092)</b>
<b>Cash flows used in financing activities</b>			
<b>Cash flows used in investing activities</b>			
Interest received		8	16
Investment in Associate		(588)	(676)
<b>Net cash used in investing activities</b>		<b>(580)</b>	<b>(660)</b>
<b>Net decrease in cash and cash equivalents</b>		<b>(1,497)</b>	<b>(1,752)</b>
Cash and cash equivalents at beginning of year		4,852	7,602
Effect of exchange rate difference		366	(998)
<b>Cash and cash equivalents at end of year</b>	8	<b>3,721</b>	<b>4,852</b>

The notes on pages 50 - 64 form an integral part of the financial statements.

## Notes to the financial statements

### 1 Business information and going concern basis of preparation

#### Background

Zanaga Iron Ore Company Limited (the “Company”), was incorporated on 19 November 2009 under the name of Jumelles Holdings Limited. The Company changed its name on 1 October 2010. The Company is incorporated in the British Virgin Islands (“BVI”) and the address of its registered office, is situated at Ground Floor, Coastal Building Wickham’s Cay II, Road Town P.O. Box 2136, Carrot Bay VG1130 Tortola, British Virgin Islands. On 18 November 2010, the Company’s share capital was admitted to trading on the AIM Market (“AIM”) of the London Stock Exchange (“Admission”). The Company’s principal place of business as an investment holding vehicle is situated in Guernsey, Channel Islands.

At 31 December 2010 the Company held 100% of the share capital of Jumelles Limited subject to the then Xstrata Call Option (as defined below).

On 14 March 2011 the Company incorporated and acquired the entire share capital of Zanaga UK Services Limited for US\$2, a company registered in England and Wales which provides investor management and administrative services.

In 2007, Jumelles became the special purpose holding company for the interests of its then ultimate 50/50 founding shareholders, Garbet Limited (“Garbet”) and Guava Minerals Limited (“Guava”), in MPD Congo which, owns and operates 100% of the Zanaga Project in the RoC (subject to a minimum 10% free carried interest in MPD Congo in favour of the Government of the RoC).

In December 2009 Garbet and Guava contributed their then respective 50/50 joint shareholding in Jumelles to the Company.

Guava is majority owned by African Resource Holdings Limited (“ARH”), a BVI company that specialises in the investment and development of early stage natural resource projects in emerging markets. Guava owns approximately 31.83% of the share capital of the Company.

At the time that Garbet was a shareholder in the Company, it was majority owned by Strata Limited (“Strata”), a private investment holding company based in Guernsey, which specialises in the investment and development of early stage natural resource projects in emerging markets, predominately Africa. Until 3 April 2017 Garbet owned approximately 41.49% of the share capital of the Company. Pursuant to a transaction effected on 2 April 2017 Garbet ceased to hold any shares in the Company. As part of such transaction the shares in the Company which were held by Garbet were transferred directly or indirectly to Garbet’s shareholders and the shareholders of Garbet’s holding company, Strata.

Jumelles has three subsidiary companies, namely Jumelles M Limited, Jumelles Technical Services (UK) Limited and MPD Congo.

#### Xstrata Transaction

On 16 October 2009, Garbet and Guava and Jumelles entered into a transaction with Xstrata (Schweiz) AG (on 3 December 2009, Xstrata (Schweiz) AG was substituted by Xstrata Projects (pty) Limited (“Xstrata Projects”), comprising of two principal transaction agreements (together the “Xstrata Transaction”):

- a call option deed which gave Xstrata Projects an option to subscribe for 50% plus 1 share of the fully diluted and outstanding shares of Jumelles (“Majority Stake”) in return for providing funding towards ongoing exploration of the Zanaga exploration licence area and a pre-feasibility study (the “PFS”) subject to a minimum amount of US\$50 million (the “Xstrata Call Option”). Under the terms of the Xstrata Call Option, the consideration payable by Xstrata Projects for the option shares that would be issued by Jumelles would comprise (i) a commitment to fund all costs to be incurred by Jumelles in completing an FS (provided such amount shall be greater than US\$100 million) or to carry out such a feasibility study at its own cost and (ii) payment of an amount (up to a maximum of US\$25 million) equal to the amount that Jumelles owes to Garbet and Guava as loans which would be used to repay the latter; and

- an Agreement which regulated the respective rights of the Company, Jumelles and Xstrata Projects in relation to Jumelles following exercise of the Xstrata Call Option. Subsequently:
  - Xstrata merged with the Glencore group on 2 May 2013 to form Glencore Xstrata and the holding company of the merged group subsequently changed its name to Glencore plc.
  - Under the terms of the Supplemental Agreement announced on 13 September 2013, the scope of the above mentioned FS was modified to a staged development basis, and the revised basis FS was completed in May 2014. The Supplemental Agreement also extended the work programme beyond the conclusion of the FS, up to December 2014 (towards which the Company contributed US\$17m from existing resources), and the Glencore call option over the Company's remaining 50% less one share shareholding in Jumelles was deleted.

During 2010, the PFS progressed and following completion of Phase I of that study Xstrata Projects countersigned a further funding letter confirming in writing its agreement (subject to the provisions of the Xstrata Call Option) to contribute further funding and confirming its approval of the phase II work programme, budget and funding amount (up to US\$56.49 million) as set out in that letter.

Xstrata Projects exercised the Xstrata Call Option on 11 February 2011 and the founding shareholder loans were repaid. The final elements of the call option price consideration were the completion of the Feasibility Study and costs thereof, and these were completed in April 2014.

#### **Relationship between Jumelles and its shareholders after exercise of the Xstrata Call Option (Post February 2011)**

The Company, Jumelles and Xstrata Projects agreed to regulate their respective rights in relation to the Project following exercise of the Call Option under the terms of the JVA. Under the terms of the JVA (as amended), all significant decisions regarding the conduct of Jumelles' business (other than certain protective rights which require the agreement of shareholders holding at least 95% of the voting rights in Jumelles) are made by the Board of Directors.

Glencore has the right to appoint three directors to the Jumelles Board while ZIOC has a right to appoint two directors. At any Jumelles Board meeting, the directors nominated by Glencore have between them such number of votes as represents Glencore's voting rights in the general meetings of Jumelles and the directors nominated by ZIOC have between them such number of votes as represents ZIOC's voting rights in the general meetings of Jumelles.

As a consequence of the provisions of the JVA (in its original version and as subsequently amended), following exercise of the Xstrata Call Option in February 2011 and Xstrata's merger with the Glencore group to form Glencore Xstrata (May 2013), Glencore controls Jumelles at both a shareholder and director level and therefore controls what was the Company's sole mineral asset, the Zanaga Project. Going forward the Company accounted for this as an investment in associate in respect of the Project with Glencore.

Following exercise of the Call Option, the principal business of the Company has been to manage its 50% less one share interest in the Project. Initially this involved the monitoring of both the finalisation of the pre-feasibility study and the preparation of the feasibility study. Going forward emphasis has been placed on progressing the key objectives of the Project team. These objectives include the establishment of port and power agreements with relevant developers, issue of the environmental permit, and ratification of the Zanaga Mining Convention by the Parliament of the RoC. These items form important milestones as the Project moves toward attracting the finance required for the implementation of Stage One.

#### **Future funding requirements and going concern basis of preparation**

The directors have prepared the accounts on a going concern basis. At 31 December 2017 the Company had cash reserves of US\$3.7m

Similar to the Funding Agreement for 2017 project expenditure, Glencore and ZIOC have agreed a Funding Agreement to fund the 2018 Project Work Programme and Budget for the Project of US\$1.3m plus US\$0.22m

of discretionary spend dependent on certain workstreams requiring capital. After taking in savings arising from previous years, Zanaga Iron Ore Company (ZIOC) has agreed to contribute towards such work programme and budget an amount comprising US\$0.65m plus 49.99% of all discretionary items approved jointly with Glencore. Ignoring any entitlement to savings, ZIOC's potential contribution to the Project in 2018 is US\$0.76m in total.

The Company's current cash reserves are sufficient to support both the Company's own operating costs and the agreed contribution to the Project set out above for the foreseeable future.

In common with many exploration and development companies in the mining sector, the Company raises funding in phases as its project develops.

If construction of the mine and related infrastructure proceeds (including any preparatory steps associated with the construction of the mine and related infrastructure), and the Company elects to fund its pro rata equity share of construction capital expenditure, it will need raise further funds. There is no certainty as to the Company's ability to raise the required finance or the terms on which such finance may be available

In addition, any decision of the Jumelles Board to proceed with construction of the mine and related infrastructure (or any variant such as a low-cost small scale start-up) is itself dependent upon the ability of Jumelles to raise the necessary debt and equity to finance such construction and the initial operation of the mine. Jumelles itself may be unable to obtain debt and/or equity financing in the amounts required, in a timely manner, on favourable terms or at all and should this occur, it is highly likely to pose challenges to the proposed development of the Zanaga Project and the proposed timeline for its development.

The Company still believes that once the proposed staged development of the Zanaga project occurs, the Project offers high grade ore at competitive cost, thereby offering an attractive rate of return, at an acceptable level of risk. However, in order to carry out such staged development, it is still the case that substantial capital expenditure will be required both at the prospective mine site and in respect of transportation and other associated infrastructure and for working capital. Revenues from mining are dependent upon such development being financed and taking place. The current state of the global iron ore market means that there can be no certainty as to when Jumelles and the Company are able to raise new finance for the staged development of the Project or when the Zanaga Project is likely to be developed. The difficult prevailing economic conditions also impact upon the ability of Jumelles and the Company to raise new finance for the project.

At a time when the staged development of the Project takes place (or, if viable, a small-scale start-up takes place) the Company will need to obtain additional funding should it decide to elect to fund its share of any such development of the mine. If such staged development continues to be deferred due to unfavourable market conditions, the Company will need at the appropriate time to explore options to raise additional funding, pending the staged development (or, if viable, a small-scale start-up) taking place.

At present, the Company has sufficient financial resources to continue in operational existence for the foreseeable future. For these reasons, the financial statements of the Company have been prepared on a going concern basis.

## **2 Accounting policies**

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the periods presented, unless otherwise stated.

### **Basis of preparation**

These financial statements have been prepared in accordance with the International Financial Reporting Standards as adopted by the European Union ("Adopted IFRS"). Adopted IFRS comprises standards and interpretations approved by the International Accounting Standards Board ("IASB") and the International Financial Reporting Interpretations Committee ("IFRIC") as adopted by the European Union.

The financial statements consolidate those of the Company and its subsidiary Zanaga UK Services Limited (together, the “Group”) and the Company’s investment in an associate which is accounted for using the equity method.

The company’s presentation currency and functional currency is US dollars.

### **New standards, amendments and interpretations**

The following Adopted IFRSs have been issued but have not been applied by the Group in these financial statements. Their adoption is not expected to have a material effect on the financial statements unless otherwise indicated:

- IFRS 9 Financial Instruments (effective date 1 January 2018).
- IFRS 15 Revenue from contracts with customers (effective date 1 January 2018).
- IFRS 16 Leases (effective date 1 January 2019)

### **Measurement convention**

These financial statements have been prepared on the historical cost basis of accounting.

The preparation of financial statements in conformity with Adopted IFRS requires the use of certain critical accounting estimates. It also requires management to exercise judgement in the process of applying the Group’s accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 3.

### **Basis of consolidation**

#### ***Subsidiaries***

Subsidiaries are entities controlled by the Group. The financial statements of subsidiaries are included in the financial statements from the date that control commences until the date that control ceases.

#### ***Associates***

Investments in associates are recorded using the equity method of accounting whereby the investment is initially recognised at cost and adjusted thereafter for the post-acquisition changes in the Group’s share of the net assets of the associate. The Group profit or loss and other comprehensive income includes the Group’s share of the associate’s profit or loss and other comprehensive income. The investment is considered for impairment annually.

#### ***Transactions eliminated on consolidation***

Intra-group balances and transactions, and any unrealised income and expenses arising from the intra-group transactions, are eliminated in preparing the financial statements.

#### ***Foreign currency***

Transactions in foreign currencies are translated at the foreign exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are retranslated to the functional currency at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognised in the income statement.

#### ***Share-based payments***

The Group makes equity-settled share-based payments to certain employees and similar persons as part of a long-term incentive plan (“LTIP”). The fair value of the equity-settled share-based payments is determined at the date of the grant and expensed, with a corresponding increase in equity, on a straight line basis over the vesting period, based on the Group estimate of the awards that will eventually vest, save for any changes resulting from any market-performance conditions.

Where awards were granted to employees of the Group's associate and similar persons, the equity-settled share-based payments were recognised by the Group as an increase in the cost of the investment with a corresponding increase in equity over the vesting period of the awards. In equity accounting for the Group's share of its associate, the Group has accounted for the cost of equity settled share-based payments as if it were a subsidiary.

The shares issued under the 2010 LTIP were acquired by an Employee Benefit Trust which subscribed for the shares at zero value. These shares are held by the Employee Benefit Trust until the vesting conditions have been met and the share options are exercised. During Q4 2017, all the outstanding share options were exercised and a small number of surplus shares held by the Employee Benefit Trust were distributed to beneficiaries of the Trust. The Employee Benefit Trust has now been discontinued.

Subsequent awards of share options have been structured as standard share options and did not involve the use of an employee benefit trust.

Information on the share awards is provided in Note 11 to these financial statements.

### ***Share-based payments to non-employees***

Where the Group received goods or services from a third party in exchange for its own equity instruments and the amount of equity instruments is fixed, the equity instruments and related goods or services are measured at the fair value of the goods or services received and are recognised as the goods are obtained or the services rendered. Equity instruments issued under such arrangements for the receipt of services are only considered to be vested once provision of services is complete. Such awards are structured as standard share options. No awards were issued in 2016 or 2017.

### ***Non-derivative financial instruments***

Non-derivative financial instruments in the balance sheet comprise other receivables, cash and cash equivalents, and trade and other payables.

#### ***Other receivables***

Other receivables are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest method, less any impairment losses.

#### ***Trade and other payables***

Trade and other payables are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest method.

#### ***Cash and cash equivalents***

Cash and cash equivalents comprise cash balances and call deposits.

#### ***Share capital***

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares are recognised as a deduction from equity.

Ordinary shares issued to the Employee Benefit Trust under the LTIP or to non-employees for services provided to the Company, are included within Share Capital.

When share capital recognised as equity is repurchased, the amount of consideration paid, including directly attributable costs, is recognised as a change in equity. Repurchased shares are cancelled.

#### ***Impairment***

The carrying amounts of the Group's assets are reviewed at each balance sheet date to determine whether there is any indication of impairment; a financial asset is considered to be impaired if objective evidence

indicates that one or more events have had a negative effect on the estimated future cash flows of that asset. If any such indication exists, the asset's recoverable amount is estimated.

An impairment loss is recognised whenever the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. Impairment losses are recognised in the income statement.

### ***Calculation of recoverable amount***

The recoverable amount of the Group's investments and receivables carried at amortised cost is calculated as the present value of estimated future cash flows, discounted at the original effective interest rate (i.e. The effective interest rate computed at initial recognition of these financial assets). Receivables with a short duration are not discounted.

The recoverable amount of other assets is the greater of their fair values less costs to sell and value in use. In assessing value in use, 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.

### ***Reversals of impairment***

An impairment loss in respect of a receivable carried at amortised cost is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised.

In respect of other assets, an impairment loss is reversed when there is an indication that the impairment loss may no longer exist and there has been a change in the estimates used to determine the recoverable amount.

An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

## **Expenses**

### ***Financing income and expenses***

Interest income and interest payable is recognised in profit or loss as it accrues, using the effective interest method.

### ***Taxation***

Tax on the profit or loss for the year comprises current and deferred tax. Tax is recognised in the income statement except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustment to tax payable in respect of previous years.

Deferred tax is provided on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The following temporary differences are not provided for: the initial recognition of goodwill; the initial recognition of assets or liabilities that affect neither accounting nor taxable profit other than in a business combination; and differences relating to investments in subsidiaries to the extent that they will probably not reverse in the foreseeable future. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the balance sheet date.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilised.



## **Segmental Reporting**

The Group has one operating segment, being its investment in the Project, held through Jumelles. Financial information regarding this segment is provided in Note 6b.

## **Subsequent events**

Post year-end events that provide additional information about the Group's position at the balance sheet date (adjusting events) are reflected in the financial statements. Post year-end events that are not adjusting events are disclosed in the notes to financial statements when material.

## **3 Critical accounting estimates, assumptions and judgements**

The Group makes estimates and assumptions concerning the future that are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities within the next financial year are discussed below.

## **Carrying value of Investment in Associate**

The value of the Group's investment in Jumelles depends very largely on the value of Jumelles' interest in the Project. Jumelles assesses at least annually whether or not its exploration projects may be impaired. This assessment can involve significant judgement as to the likelihood that a project will continue to show sufficient commercial promise to warrant the continuation of exploration and evaluation activities. Key assumptions on valuing the project include long term price assumptions on a CFR IODEX 62% Fe forecast 57US/dmt with adjustments for quality, deleterious elements, moisture and freight. It is reasonably possible, on the basis of existing knowledge, that outcomes within the next financial year that are different from assumptions above could require a material adjustment to the carrying amount of the Investment in Associate

## **4 Note to the comprehensive income statement**

Operating loss before tax is stated after charging/(crediting):

	2017 US\$000	2016 US\$000
Share-based payments (see Note 11)	–	2
Net foreign exchange loss/(gain)	(313)	1,083
Directors' fees	258	270
Auditor's remuneration	64	58
Depreciation	–	3

Other than the Company Directors, the Group did not directly employ any staff in 2017 (2016: four). The three Directors received a total of US\$258,000 remuneration for their services as Directors of the Group (2016: US\$270,000). The amounts paid as Directors' fees are shown in the Directors' Remuneration Report on pages 37 and 38. The Directors' interests in the share capital of the Group are shown in the Directors' Remuneration Report on page 37.

## 5 Taxation

The Group is exempt from most forms of taxation in the BVI, provided the Group does not trade in the BVI and does not have any employees working in the BVI. All dividends, interest, rents, royalties and other expense amounts paid by the Company, and capital gains are realised with respect to any shares, debt obligations or other securities of the Company, are exempt from taxation in the BVI.

The 2016 tax charge relates to the Company's subsidiary, Zanaga UK Services Limited.

	2017 US\$000	2016 US\$000
<i>Recognised in profit and loss:</i>		
Current year	–	(15)
<i>Reconciliation of effective tax rate</i>		
Profit/(Loss) before tax	–	(2,945)
Income tax using the BVI corporation tax rate of 0% (2016: 0%)	–	–
Effect of tax rate in foreign jurisdictions	–	(15)
	–	(15)

The effective tax rate for the Group is Nil % (2016: 0.48%).

## 6a Property, Plant and Equipment

	Leasehold property improvements US\$000	Fixtures and fittings US\$000	Total US\$000
<b>Cost</b>			
Balance at 1 January 2017	–	43	43
Additions	–	–	–
Disposals	–	–	–
<b>Balance at 31 December 2017</b>	–	43	43
<b>Depreciation</b>			
Balance at 1 January 2017	–	43	43
Charge for period	–	–	–
<b>Balance at 31 December 2017</b>	–	43	43
<b>Net book value</b>			
<b>Balance at 31 December 2017</b>	–	0	0
Balance at 31 December 2016	–	0	0

There are no assets held under finance leases or hire purchase contracts.

## 6b Investment in Associate

	US\$000
Balance at 1 January 2016	37,809
Additions	676
Share of post-acquisition comprehensive loss	(619)
Share of post-acquisition currency translation reserve	7
<b>Balance at 31 December 2016</b>	<b>37,873</b>
Balance at 1 January 2017	37,873
Additions	588
Share of post-acquisition comprehensive loss	(824)
Share of post-acquisition currency translation reserve	(48)
<b>Balance at 31 December 2017</b>	<b>37,589</b>

At 31 December 2017, the investment represents a 50% less one share shareholding in Jumelles being 2,000,000 shares of the total share capital of 4,000,001 shares. The shares were acquired in exchange for shares in the Company. Originally recorded at cost, the investment has been adjusted for changes in the Company's share of the net assets of the associate, less impairment. The investment has been impaired down to the Company's share of the impaired value of the project declared in the accounts of the associate.

The additions to the investment during the year were due to the additional US\$0.59m of investment agreed in accordance with the 2017 Funding Agreement (2016 US\$0.67m).

The Company's investment in Jumelles continues to be, accounted for as an associate using the equity method of accounting as Glencore has control of the business as described in note 1.

The Group financial statements accounted for the Glencore transaction as an in-substance equity-settled share-based payment for the provision of services by Glencore to Jumelles in relation to the PFS and the FS. These services largely were provided through third party contractors, measured at the cost of the services provided.

As at 31 December 2017, Jumelles had aggregated assets of US\$81.8m (2016: US\$82.5m) and aggregated liabilities of US\$0.8m (2016: US\$0.8m). For the year ended 31 December 2017 there was no impairment charge (2016: US\$nil) and incurred a loss before tax of US\$1.4m (2016: US\$1.2m). There was no tax charge for 2017 (2016: US\$nil). Currency translation of the underlying Congolese asset generated a translation loss of US\$0.1m (2016: US\$0.0014m). A summarised consolidated balance sheet of Jumelles for the year ended 31 December 2017, including adjustments made for equity accounting, is included below. The adjustments include US\$9.074m decrease to share capital and a corresponding US\$9.074m increase to the accumulated deficit for the LTIP settled at Jumelles level by shares in the parent entity in 2014."

	2017 US\$000	2016 US\$000
Non-current Assets:		
Property, plant and equipment	1,519	1,842
Exploration and other evaluation assets	80,000	80,000
Total non-current assets	81,519	81,842
Current Assets	356	756
Current Liabilities	(772)	(846)
Net current liabilities	(417)	(90)
Net assets	81,103	81,752
Share capital	338,190	337,096
Translation reserve	(4,823)	(4,728)
Accumulated deficit	(252,264)	(250,616)
	81,103	81,752

## 7 Other receivables

	2017 US\$000	2016 US\$000
Prepayments and receivables	15	25
Amounts receivable from the Jumelles group	34	35
Other receivables	49	60

## 8 Cash

	2017 US\$000	2016 US\$000
Cash and cash equivalents	3,721	4,852

## 9 Trade and other payables

	2017 US\$000	2016 US\$000
Accounts payable	75	99
UK corporation tax	–	14
	75	113

No amounts payable are due in more than 12 months (2016: US\$nil).

## 10 Share capital

	Ordinary Shares	Ordinary Shares
In thousands of shares		
	2017	2016
<b>On issue at 1 January – fully paid</b>	<b>278,777</b>	<b>278,777</b>
Shares issued	–	–
Shares repurchased and cancelled	–	–
<b>On issue at 31 December – fully paid</b>	<b>278,777</b>	<b>278,777</b>

The Company is able to issue an unlimited number of no par value shares. The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at meetings of the Company. No dividends have been paid or declared in 2017 or in the current year (2016: US\$nil).

### Share capital changes in 2017

There were no shares issued in 2017, nor were there any share repurchases.

## 11 Share-based payments

### Employees

No awards were issued in 2017.

Awards currently in operation are as follows:

#### Award 1 (fully vested)

These awards vested on the publication of the results of the VEE, which was achieved in October 2011.

#### Award 2 (fully vested)

These awards fully vested in 2012 on the expiry of two years following Admission.

#### Award 6 (fully vested)

These awards have fully vested.

#### Award 7 (fully vested)

These awards have fully vested.

#### Award 8 (fully vested)

These awards vested on the date of grant in July 2014.

#### Award 9 (fully vested)

These awards have fully vested.

Details of current awards are as follows:

	Award 1 (2010)		Award 2 (2010)		Award 6 (2014)		Award 8 (2014)		Award 9 (2014)		Total	
	Weighted Average Exercise Price (£)	Number	Weighted Average Exercise Price (£)	Number	Weighted Average Exercise Price (£)	Number	Weighted Average Exercise Price (£)	Number	Weighted Average Exercise Price (£)	Number	Weighted Average Exercise Price (£)	Number
At 1 January 2016 *	£0.02	2,727,345	£0.02	995,382	N/A	Nil	N/A	Nil	N/A	Nil	£0.02	3,722,727
	(US\$0.04)		(US\$0.04)								(US\$0.04)	
Granted	N/A	Nil	N/A	Nil	0.01	1,204,619	0.01	1,013,418	0.01	4,000,000	0.01	6,218,037
Forfeited	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil
Exercised	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil
Lapsed	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil	N/A	Nil
At 31 December 2016 *	£0.02	2,727,345	£0.02	995,382	0.01	1,204,619	0.01	1,013,418	0.01	4,000,000	£0.01	9,940,764
	(US\$0.04)		(US\$0.04)		(US\$0.01)		(US\$0.02)		(US\$0.02)		(US\$0.02)	
At 1 January 2017 *	£0.02	2,727,345	£0.02	995,382	0.01	1,204,619	0.01	1,013,418	0.01	4,000,000	£0.01	9,940,764
	(US\$0.04)		(US\$0.04)				(US\$0.02)		(US\$0.02)		(US\$0.02)	
At 31 December 2017 *	£0.02	2,727,345	£0.02	995,382	0.01	1,204,619	0.01	1,013,418	0.01	4,000,000	£0.01	9,940,764
	(US\$0.04)		(US\$0.04)		(US\$0.01)		(US\$0.02)		(US\$0.02)		(US\$0.02)	

	Award 1 (2010)	Award 2 (2010)	Award 6 (2014)	Award 8 (2014)	Award 9 (2014)	Total
Range of exercise prices *	£0.00–£0.02 (US\$0.00–US\$0.04)	£0.02 (US\$0.04)	£0.00–£0.01 (US\$0.00–US\$0.02)	£0.01 (US\$0.02)	£0.01 (US\$0.02)	£0.00 – £0.02 (US\$0.00–US\$0.04)
Weighted average fair value of share awards granted in the period *	N/A	N/A	N/A	N/A	N/A	N/A
Weighted average share price at date of exercise (£)	N/A	N/A	N/A	N/A	N/A	N/A
Total share awards vested	2,727,345	995,382	1,137,338	1,013,418	4,000,000	8,337,685
Weighted average remaining contractual life (Days)	Nil	Nil	39	Nil	Nil	N/A
Expiry date	18 May 2021	18 May 2021	29 July 2024**	29 July 2024	29 July 2024	N/A

\* Sterling amounts have been converted into US Dollars at the grant dates exchange rates of: Awards 1,2, US\$1.547:£1.00, Subsequent awards US\$ 1.6944:£1.00.

\*\* Excepting 199,076 share options with expiry date 7 July 2023

The following information is relevant in the determination of the fair value of options granted during 2010 and 2014 which has applied option valuation principles during the year under the above equity-settled schemes:

	Award 1 (2010)	Award 2 (2010)	Award 6 (2014)	Award 8 (2014)	Award 9 (2014)
Option pricing model used	Black-Scholes	Black-Scholes	Black-Scholes	Black-Scholes	Black-Scholes
Weighted average share price at date of grant	£1.56 (US\$2.41)	£1.56 (US\$2.41)	£0.19 (US\$0.31)	£0.19 (US\$0.31)	£0.19 (US\$0.31)
Weighted average expected option life	0.7 years	1.0 years	5.0 years	4.0 years	4.6 years
Expected volatility (%)	50%	50% for less than 1 year expected life, 55% for more than 1 year expected life	91%	91%	91%
Dividend growth rate (%)	Zero	Zero	Zero	Zero	Zero
Risk-free interest rate (%)	0.51% for 6 month expected life 0.69% for 12 month expected life	0.69% for 12 month expected life 1.12% for 24 month expected life	1.75% for 12 month expected life 2.25% in excess of 24 month expected life	1.75% for 12 month expected life 2.25% in excess of 24 month expected life	1.75% for 12 month expected life 2.25% in excess of 24 month expected life

\* Sterling amounts have been converted into US Dollars at the grant dates exchange rates of: Awards 1,2, US\$1.547:£1.00, Subsequent awards US\$ 1.6944:£1.00.

The volatility assumption of awards 1 & 2 were measured by reference to the historic volatility of comparable companies based on the expected life of the option. Subsequent awards referenced the volatility of the Company's own history since the 2010 flotation.

### Non-employees

Replacing awards made previously, or as new awards, on 29 July 2014 the Company also granted awards of share options in respect of consultancy services provided by Strata Capital UK LLP, Harris GeoConsult Ltd and Renroc International Ltd.

Consultancy	Weighted average share price at date of grant *	Weighted average fair value of share awards *	Weighted average expected life of option	Expiry date	Other LTIP terms, valuation model and assumptions applicable
Strata Capital	£0.19 (US\$0.31)	£0.12 (US\$0.20)	4 years	29 July 2024	Award 8 above
Harris GeoConsult	£0.19 (US\$0.31)	£0.18 (US\$0.31)	4 years	29 July 2024	Award 8 above
Renroc International	£0.19 (US\$0.31)	£0.18 (US\$0.31)	4 years	29 July 2024	Award 7 above

\* Sterling amounts have been converted into US Dollars at the grant date exchange rate US\$ 1.6944:£1.00.

The total equity-settled share-based payment expense recognised as an operating expense during the year was US\$Nil, (2016: US\$2,000). Further details of share-based payments awarded to Directors of the Group can be found in the Remuneration Report on pages 36 - 39.

The total charge during the year for equity-settled share-based payments awarded to employees of companies in which the Group has a significant interest totals US\$nil (2016: US\$nil).

## 12 Profit/(Loss) per share

	2017	2016
<b>Profit/(Loss) (Basic and diluted) (US\$,000)</b>	<b>(1,393)</b>	<b>(2,960)</b>
<b>Weighted average number of shares (thousands)</b>		
<i>Basic</i>		
Issued shares at beginning of period	278,777	278,777
Effect of shares issued	-	-
Effect of share repurchase and cancellation	-	-
Effect of own shares	(3,842)	(3,842)
Effect of share split	-	-
Weighted average number of shares at 31 December – basic	274,935	274,935
<b>Profit/(Loss) per share</b>		
Basic (Cents)	(0.5)	(1.1)
Diluted (Cents)	(0.5)	(1.1)

There are potential ordinary shares outstanding, refer to Notes 10 and 11 for details of these potential ordinary shares.

## 13 Financial instruments

### *Fair values of financial instruments*

#### *Other receivables*

The fair value of other receivables is estimated as the present value of future cash flows, discounted at the market rate of interest at the balance sheet date if the effect is material. The fair values approximate book values.

#### *Trade and other payables*

The fair value of trade and other payables is estimated as the present value of future cash flows, discounted at the market rate of interest at the balance sheet date if the effect is material. The fair values approximate book values.

#### *Cash and cash equivalents*

The fair value of cash and cash equivalents is estimated as its carrying amount where the cash is repayable on demand. Where it is not repayable on demand then the fair value is estimated at the present value of future cash flows, discounted at the market rate of interest at the balance sheet date.

### *Financial Risk Management*

The Group's activities expose it to a variety of financial risks: credit risk, liquidity risk and market risk (comprising currency risk and interest rate risk). The Group seeks to minimise potential adverse effects of these risks on the Group's financial performance. The Board has overall responsibility for managing the risks and the framework for monitoring and coordinating these risks. The Group's financial risk management policies are set out below:

#### *(a) Credit risk*

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group receivables related parties. The Group has a credit policy in place and exposure to credit risk is monitored on an ongoing basis. At 31 December, the financial assets exposed to credit risk were as follows:

	2017 US\$000	2016 US\$000
Cash and cash equivalents	3,721	4,852
Jumelles	34	35

#### *(b) Liquidity risk*

Liquidity risk is the risk that the Group will not be able to meet its obligations as they fall due. The Group evaluates and follows continuously the amount of liquid funds needed for business operations, in order to secure the funding needed for business activities and loan repayments. The availability and flexibility of the financing is needed to assure the Group's financial position. The Group funding requirements are detailed in Note 1.

Details of the maturity of financial liabilities are provided in Note 9.

*(c) Market risk*

*(i) Foreign currency risk*

The foreign currency denominated financial assets and liabilities are not hedged, thus the changes in fair value are charged or credited to profit and loss.

As at 31 December 2017 the foreign currency denominated assets include cash balances held in Sterling of US\$3,720,990 (2016: US\$4,852,000), other receivables denominated in Sterling of US\$48,548 (2016: US\$60,000), and payables of US\$75,923 (2016: US\$98,566) denominated in Sterling.

The following significant exchange rates applied during the year:

	Reporting date		Reporting date	
	Average rate 2017	spot rate 2017	Average rate 2016	spot rate 2016
Against US Dollars	US\$	US\$	US\$	US\$
Pounds Sterling	1.3404	1.3513	1.2346	1.3550

*Sensitivity analysis*

A 10% weakening of the following currencies against the US Dollar at 31 December 2017 would have increased/(decreased) equity and profit or loss by the amounts shown below. This calculation assumes that the change occurred at the balance sheet date and had been applied to risk exposures existing at that date. This analysis assumes that all other variables, in particular other exchange rates and interest rates, remain constant.

	Equity 2017	Profit or loss 2017	Equity 2016	Profit or loss 2016
	US\$000	US\$000	US\$000	US\$000
Pounds Sterling	(372)	(372)	(485)	(485)

A 10% strengthening of the above currencies against the US Dollar at 31 December would have had the equal but opposite effect on the above currencies to the amounts shown above, on the basis that all other variables remain constant.

*Capital management*

The Board's policy is to maintain a strong capital base so as to maintain investor and market confidence. Capital consists of share capital and retained earnings.

The Directors do not intend to declare or pay a dividend in the foreseeable future but, subject to the availability of sufficient distributable profits, intend to commence the payment of dividends when it becomes commercially prudent to do so.

The Company has a share incentive programme which is now administered by the Board. The share incentive programme is discretionary and the Board will decide whether to make share awards under the share incentive programme at any time. In Q4 2017 all then outstanding share options over already issued shares in the LTIP split interest scheme were exercised, a small number of surplus shares were distributed to beneficiaries of the Employee Benefit Trust involved in the scheme and the LTIP split interest scheme was then discontinued.



#### 14 Commitments for expenditure

The Group had no capital commitments or off-balance sheet arrangements at 31 December 2017 (31 December 2016: nil).

#### **Related parties**

The Group's relationships with Jumelles and Glencore are described in Note 1 above.

The following transactions occurred with related parties during the period:

	Transactions for the period		Closing balance (payable)/receivable	
	2017 US\$000	2016 US\$000	2017 US\$000	2016 US\$000
<b>Funding:</b>				
Due from Jumelles	589	357	34	35

#### **Transactions with key management personnel**

	2017 US\$000	2016 US\$000
Share-based payments	-	2
Directors' fees	258	270
Total	258	272

The Directors' have no material interest in any contract of significance subsisting during the financial year, to which the Group is a party.

\*\*\* End of Financial Statements \*\*\*

## Glossary

<b>Al<sub>2</sub>O<sub>3</sub></b>	Alumina (Aluminium Oxide)
<b>Fe</b>	Total Iron
<b>JORC Code</b>	The 2004 or 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves as published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia
<b>LOI</b>	Loss on ignition
<b>LOM</b>	Life of mine
<b>Mineral Resource</b>	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. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories
<b>Mn</b>	Manganese
<b>Ore Reserve</b>	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. A Probable Ore Reserve has a lower level of confidence than a Proved Ore Reserve but is of sufficient quality to serve as the basis for a decision on the development of the deposit.
<b>P</b>	Phosphorus
<b>PFS</b>	Pre-feasibility Study
<b>SiO<sub>2</sub></b>	Silica

## Resource Appendix

JORC Code, 2012 Edition Table 1 for Zanaga Iron Ore Project, located in RoC, as at September 2013

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<p>The deposit was sampled between 2007 and 2013 by diamond and reverse circulation ("RC") drilling on an average grid of 100 x 400 m at the northern end of the deposit and 200 x 400 m at the southern end of the deposit. The central area is more densely drilled to 100 x 200 m, 100 x 100 m and 100 x 50 m grids, with the tighter drilling east-west along the sections.</p> <p>A total of 323 diamond holes were drilled for 74,614 m and 908 RC holes for 103,439 m. Drill holes are inclined to the west typically at an angle of 60° to intercept the true thickness of mineralisation where possible. Drilling at the closest spacing give intersections around 100 x 100 m apart. The maximum number of intersections into the fresh material on any one section is 5, averaging 1-2 intersections per unit.</p> <p>The diamond core was sampled at 1 m intervals to the lithological contacts and the RC chips were sampled at 2 m intervals (with a few exceptions where samples are 1 m). A paint line on the mast allowed drillers to identify the 2 m intervals adequately.</p> <p>RC samples were split twice at the drill site using a three tier splitter to produce A and B samples, each of which represent 6.25% of the original sample. The A and B sample weights vary between 2.5 and 3.5 kg each depending on the horizon intersected. Samples A and B are then tagged and labelled.</p>
		<p>Diamond drill ("DD") samples were split using a core saw or where too friable for sawing, were cut or cleaved in half.</p> <p>CSA Global (UK) Ltd ("CSA") reviewed the drilling and sampling procedures prior to the Mineral Resource Estimate ("MRE") being completed and concludes that the sampling techniques are suitable, of good practise for the style of mineralisation so as to ensure reliable and representative data is collected for downstream MRE use.</p> <p>54 RC holes were twinned by DD to validate RC data and this is described in more detail in "Verification of sampling and assaying".</p>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<p>DD drilling commenced using PQ or PQ3 rods to produce 85 / 83.1 mm diameter core from surface which reduced to HQ or HQ3 (63.5 / 61.1 mm diameter) and in some cases to NQ / NQ3 (47.6 / 45.1 mm diameter) with depth. All DD drilling was completed using triple tube.</p> <p>DD core was oriented by means of a Reflex ACE tool with three levels of confidence in the orientation recorded in the database, indicating high, moderate and low confidence. This enables interrogation of the oriented data using the appropriate level of confidence.</p> <p>RC holes have the bit type and bit size (mm) recorded in the database. Often a wider bit was used for the pre-collar and a smaller diameter bit for the remainder of the hole. The average depth of the PQ/PQ3 pre-collar was 50 m but varied between 14 m and 99 m, with depth being a function of the oxidation profile and depth of friable materials.</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential</li> </ul>	<p>DD core recoveries were recorded per drilled run by measuring the length recovered compared to the length drilled.</p>

Criteria	JORC Code explanation	Commentary
	<i>loss/gain of fine/coarse material.</i>	<p>In the competent lithologies (competent itabirite ("ITC"), transitional itabirite ("ITT") and banded iron formation ("BIF"), the core recovery was excellent with mean recoveries of 92%, 92% and 97% respectively. Recovery was poorer in the friable materials (colluvium and canga "COL", goethitic itabirite "ITG" and friable itabirite "ITF") with mean recoveries for DD core of 69% for COL, 74% for ITG and 86% for ITF. CSA did not see drilling actively take place during the site visit (the drill program had just ended), however, a review of the procedures was completed, and they state that shorter runs should be employed through the more friable material.</p> <p>For RC samples, recovery was measured by comparing the actual weight of sample drilled and the theoretical weight of the material. Of 38,645 RC samples, 38,406 had sample weights, and therefore recovery data for near 100% of data could be reviewed.</p> <p>Sample recovery for RC drilling was approximately 50%, which is considered low, particularly with respect to fresh BIF material. The reason for the low recovery is believed to be due to the presence of water in samples, with no auxiliary booster in place to keep the samples drilled at depth dry. A review of recovery by sample condition (dry, moist, wet) showed that recovery was best for dry samples. A review of Fe grade by sample condition showed good compatibility and suggests that no bias was introduced by the inclusion of moist and wet samples. However, if further drilling is conducted, CSA recommends that efforts are made to keep samples dry through the use of an auxiliary booster.</p> <p>CSA investigated the relationship between iron grade and recovery and found there was no definable relationship between recovery and grade. In addition, the comparison between DD core, where there is very good recovery and RC chips shows excellent correlation. In conclusion, the low</p>

Criteria	JORC Code explanation	Commentary
		recovery observed in RC chips does not introduce bias into the resource, and are suitable for use in the MRE.
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p>RC chip samples were logged for lithology on 2 m intervals at the rig. Magnetic susceptibility readings were measured at the rig. All RC chips were logged for lithology and chip trays were stored to preserve the record.</p> <p>DD core was orientated and lithologically and geotechnically logged at the Mining Project Development Congo ("MPD") Camp core shed where it was also photographed. Magnetic susceptibility readings were taken.</p> <p>DD logging was completed on 1 m intervals or &lt;1 m where contacts between geological units were encountered (&lt;5% total records). All DD core was logged.</p> <p>Core was photographed on completion of logging, and prior to sampling. Pathways to core photographs are stored in the database.</p> <p>The level of information gained from the sampling is of sufficient quality and consistency to be used for the basis of Mineral Resource Estimation, mining studies and metallurgical studies.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material</li> </ul>	<p>Core was orientated and sampled on 1 m intervals. Where core was not orientated, samples are between 0.5 and 1.5 m in length. Some samples (&lt;0.3% of total number) are less than 0.5 or greater than 1.5 m in length.</p> <p>31% of DD core was split in half using a core saw and sampled along the apex of the structures in the core. 69% of DD core was quarter split, due to the requirement to retain samples for metallurgical test work. If the apex line coincided with the orientation line, the core was sampled 5 mm to the right of the line. Where half core samples were submitted for</p>

Criteria	JORC Code explanation	Commentary
	<i>being sampled.</i>	<p>preparation and analysis, the remaining half was stored for reference. Where quarter core samples were submitted for preparation and analysis, one half was available for metallurgical test work, and the remaining one quarter was stored for reference. Checks on the compatibility of sample types was completed – quarter core vs half core, chips vs core, and samples showed a very high level of correlation. Where core was too friable for sawing, it was sampled using a machete.</p> <p>The majority (98%) of RC chips were sampled at 2 m intervals. Dry RC samples were split twice at the rigs using a three tier splitter and wet samples were collected in bulk, dried in the sun, and then split by a three tier Jones Riffle splitter into approximately 3 kg samples. The sample weights were recorded at each stage of the process to enable recoveries be calculated. Original sample condition (dry, moist, wet) is recorded in the database.</p> <p>The samples were prepared at the on-site ALS Chemex facility where they were crushed to 70% passing 2 mm then split to obtain 1,000 g sample (through a 50:50 Jones riffle splitter). The 1,000 g samples were then pulverised to 85% passing 75 µm with the remaining crushed sample retained for reference purposes. 100 g of the pulp was submitted to ALS Chemex in Perth for XRF analysis. The remaining pulp was stored on site for reference. Lab standards, duplicates and blanks were reviewed and no issues were identified.</p> <p>100 g pulps were analysed on site by portable XRF using a desktop Niton. Comparison of Niton and laboratory analyses showed an excellent correlation.</p> <p>Field duplicates were sampled and analysed using both portable XRF Niton and laboratory XRF methods. They were collected at the same time as the primary sample, using the same sampling protocol and were used</p>

Criteria	JORC Code explanation	Commentary
		<p>to measure the precision of the sample preparation and analysis and results indicate that the procedures in place are working.</p> <p>The sample preparation procedures are appropriate for the iron ore mineralisation at Zanaga.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<p>The primary samples were analysed by multi-element XRF (fused disc) at ALS Chemex (Perth, Australia) for Al<sub>2</sub>O<sub>3</sub>, As, Ba, CaO, Cl, Co, Cr<sub>2</sub>O<sub>3</sub>, Cu, Fe, K<sub>2</sub>O, MgO, Mn, MnO, Na<sub>2</sub>O, Ni, P, Pb, S, SiO<sub>2</sub>, Sn, Sr, TiO<sub>2</sub>, V, Zn, Zr and Loss on Ignition at 105°C, 400°C, 650°C and 1,000°C.</p> <p>1,166 samples from the magnetite bearing material (ITC, ITT and BIF) were also analysed by Davis Tube Recovery at ALS Perth.</p> <p>A portable XRF (Niton XL3t) was used on site to collect additional oxide analyses from 100 g of the remaining pulp after sample preparation. Calibration of the machine was done at the beginning of each day. Field duplicates were used to assess the precision of the Niton results. Niton results were reviewed against laboratory assays, and were found to have an excellent correlation, but were not used in the MRE, since laboratory assays were available for all samples.</p> <p>Blanks, Field Duplicates and Certified Reference Materials ("CRMs") were used to monitor the precision and accuracy of the analytical data through insertion into the sample stream before submission to the laboratory.</p> <p>1,938 of the primary samples (approximately 2%) were analysed by XRF at umpire laboratories (Ultratrace and ALS Perth).</p> <p>Field duplicates were inserted into the sample stream at a rate of 5%, field blanks at a rate of 3.4%, CRMs at a rate of 2.5% constituting an overall 10.9% check on the original data. 17 different standards were used to cover the expected ranges of iron mineralisation. In addition, the</p>

Criteria	JORC Code explanation	Commentary
		<p>laboratory quality assurance and quality control ("QAQC") material was reviewed (17% CRMs and blanks and 13% pulp splits).</p> <p>On analysis of the results of the QAQC system CSA concluded:</p> <p>There was good correlation (correlation coefficient of 0.98) between the Niton and laboratory results.</p> <p>High analytical precision was demonstrated by good correlation between duplicate and original samples.</p> <p>Accuracy was demonstrated by the majority of CRMs.</p> <p>A small number of QC samples appeared to have been affected by contamination and misallocation of standard IDs. The proportion was small enough to be considered not material.</p> <p>The results of blanks analysis suggested that there may have been an issue of sample switching in the laboratory preparation since two samples showed noticeable contamination. Overall, the blanks performed well and showed no material contamination (noting that the field blanks were uncertified sands sourced locally).</p> <p>Overall, the laboratory procedures and analysis were considered appropriate and did not indicate bias.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Two umpire laboratories (Ultratrace and ALS Perth) were used to verify samples during the drilling campaigns. Other QAQC checks were employed as outlined above.

Criteria	JORC Code explanation	Commentary
		<p>Sampling, Logging, Niton and Data Management Procedures were documented and have been reviewed by CSA and are considered fit for purpose.</p> <p>Maria O'Connor verified logged intercepts from several DD and RC drill holes while on site. Collar locations were field checked, database spot checks conducted, and geological interpretation and review were completed during the site visit. The site visit lasted four days from 4th May until 7th May 2012 inclusive.</p> <p>Drilling had stopped during the site visits completed by CSA, and therefore, drilling procedures were not verified first hand. However, sample preparation and logging were still ongoing, and CSA verified that these were being completed as outlined in the procedures.</p> <p>The information collected from the drill site, core shed and laboratory was digitally entered and imported into DataShed software (a data management system by Maxwell GeoServices).</p> <p>54 RC holes were twinned and results were reviewed and show good correlation. No adjustments were made to the data.</p>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>Drill collars are surveyed on completion of the hole using a Total Station (Sokkia) differential GPS in the WGS84 projection and UTM coordinate system.</p> <p>The topographical survey used is a LiDAR based digital terrain model which gives a very high level of accuracy.</p> <p>Downhole surveys were recorded at the end of the hole using a gyro survey. The data was also collected at regular intervals of 2 m, 3 m or 5 m in the majority of cases. Older data recorded downhole surveys by a</p>



Criteria	JORC Code explanation	Commentary
		<p>camera shot tool at the end of the hole and at approximately 30 m intervals.</p> <p>Where drill holes collars were picked up by hand held GPS, and the difference between the surveyed RL and topography was greater than 2 m, the collars were draped onto the topography, since the reliability of a hand held GPS in the RL can be considered low.</p> <p>Where collars were <math>\pm 2</math> m from the topography, coordinates were sent to site for verification.</p> <p>The level of topographic control and accuracy of the drill hole and sample locations is suitable for the reporting of Mineral Resources.</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> <li>• 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.</li> <li>• Whether sample compositing has been applied.</li> </ul>	<p>The deposit was sampled between 2007 and 2013 by DD and RC drilling on an average grid of 100 x 400 m at the northern end of the deposit and 200 x 400 m at the southern end of the deposit. The central area is more densely drilled to 100 x 200 m, 100 x 100 m and 100 x 50 m grids, with the tighter drilling east-west along the sections.</p> <p>The drilling pattern is sufficiently dense to interpret the geometry and boundaries of the iron mineralisation with confidence. The data quantity and distribution is considered appropriate for the reporting of Inferred, Indicated and Measured Mineral Resources.</p> <p>Samples were composited to 2 m within each of the different lithological zones for the majority of drilling, which CSA believes is appropriate given the original sample size and support of the RC and DD drilling.</p>
Orientation of data in relation to	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a</li> </ul>	<p>The majority of the drill holes have been orientated perpendicular to the dipping lenses so that sampling bias is not introduced although the</p>

Criteria	JORC Code explanation	Commentary
geological structure	sampling bias, this should be assessed and reported if material.	<p>geometry of the iron mineralisation indicates there are faults that offset the mineralisation that are sometimes sub- parallel to the sections.</p> <p>The sampling configuration has not introduced any material bias to the grade and tonnage estimation.</p>
Sample security	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<p>Core samples taken from surface holes are kept in secure storage on the Zanaga camp until submission to the laboratory for analysis. The Chain of Custody is managed by Glencore Iron Ore ("Glencore") personnel on site.</p>
Audits or reviews	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<p>CSA visited site to review and audit the drilling, logging and sampling on site in March 2012 and May 2012.</p> <p>CSA considers the sample collection and assaying techniques to be appropriate for the style of geometry and style of mineralisation and the data is suitable for use in the Mineral Resource Estimate.</p>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>• 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.</li> <li>• The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<p>The licences are owned by MPD, a company wholly owned by Zanaga Iron Ore Company ("ZIOC"). Glencore is majority joint venture partner with ZIOC and has effective management control of the project.</p> <p>On 14th August 2014, a mining licence was awarded over a single permit area – Zanaga – covering 499.3 km<sup>2</sup>. This mining licence replaces two exploration licences that had previously covered the same area (Zanaga-Bambama and Zanaga- Mandzoumou). The mining licence has been granted for a duration of 25 years, with options to extend as per the</p>

Criteria	JORC Code explanation	Commentary																																																																											
		<p>Mining Code of Republic of Congo. The Zanaga deposit lies wholly within the licence boundary.</p> <p>The licence name is 2014-443 and the coordinates are in the following table (extracted from the 'Permis Zanaga' mining licence document).</p> <table border="1"> <thead> <tr> <th>SOMMETS</th><th>LONGITUDES</th><th>LATITUDES</th></tr> </thead> <tbody> <tr><td>A</td><td>13° 32' 14" E</td><td>2° 27' 36" S</td></tr> <tr><td>B</td><td>13° 32' 13" E</td><td>2° 35' 22" S</td></tr> <tr><td>C</td><td>13° 34' 37" E</td><td>2° 35' 22" S</td></tr> <tr><td>D</td><td>13° 34' 37" E</td><td>2° 37' 29" S</td></tr> <tr><td>E</td><td>13° 34' 18" E</td><td>2° 37' 29" S</td></tr> <tr><td>F</td><td>13° 34' 17" E</td><td>2° 45' 31" S</td></tr> <tr><td>G</td><td>13° 34' 46" E</td><td>2° 45' 31" S</td></tr> <tr><td>H</td><td>13° 34' 46" E</td><td>2° 49' 55" S</td></tr> <tr><td>I</td><td>13° 34' 26" E</td><td>2° 49' 55" S</td></tr> <tr><td>J</td><td>13° 34' 26" E</td><td>2° 52' 34" S</td></tr> <tr><td>K</td><td>13° 35' 08" E</td><td>2° 52' 34" S</td></tr> <tr><td>L</td><td>13° 35' 08" E</td><td>2° 57' 37" S</td></tr> <tr><td>M</td><td>13° 35' 42" E</td><td>2° 57' 37" S</td></tr> <tr><td>N</td><td>13° 35' 42" E</td><td>2° 58' 40" S</td></tr> <tr><td>O</td><td>13° 38' 17" E</td><td>2° 58' 40" S</td></tr> <tr><td>P</td><td>13° 38' 17" E</td><td>2° 53' 00" S</td></tr> <tr><td>Q</td><td>13° 37' 50" E</td><td>2° 53' 00" S</td></tr> <tr><td>R</td><td>13° 37' 51" E</td><td>2° 48' 53" S</td></tr> <tr><td>S</td><td>13° 37' 21" E</td><td>2° 48' 53" S</td></tr> <tr><td>T</td><td>13° 37' 22" E</td><td>2° 40' 17" S</td></tr> <tr><td>U</td><td>13° 37' 59" E</td><td>2° 40' 17" S</td></tr> <tr><td>V</td><td>13° 38' 00" E</td><td>2° 35' 22" S</td></tr> <tr><td>W</td><td>13° 41' 35" E</td><td>2° 35' 22" S</td></tr> <tr><td>X</td><td>13° 41' 35" E</td><td>2° 27' 37" S</td></tr> </tbody> </table>	SOMMETS	LONGITUDES	LATITUDES	A	13° 32' 14" E	2° 27' 36" S	B	13° 32' 13" E	2° 35' 22" S	C	13° 34' 37" E	2° 35' 22" S	D	13° 34' 37" E	2° 37' 29" S	E	13° 34' 18" E	2° 37' 29" S	F	13° 34' 17" E	2° 45' 31" S	G	13° 34' 46" E	2° 45' 31" S	H	13° 34' 46" E	2° 49' 55" S	I	13° 34' 26" E	2° 49' 55" S	J	13° 34' 26" E	2° 52' 34" S	K	13° 35' 08" E	2° 52' 34" S	L	13° 35' 08" E	2° 57' 37" S	M	13° 35' 42" E	2° 57' 37" S	N	13° 35' 42" E	2° 58' 40" S	O	13° 38' 17" E	2° 58' 40" S	P	13° 38' 17" E	2° 53' 00" S	Q	13° 37' 50" E	2° 53' 00" S	R	13° 37' 51" E	2° 48' 53" S	S	13° 37' 21" E	2° 48' 53" S	T	13° 37' 22" E	2° 40' 17" S	U	13° 37' 59" E	2° 40' 17" S	V	13° 38' 00" E	2° 35' 22" S	W	13° 41' 35" E	2° 35' 22" S	X	13° 41' 35" E	2° 27' 37" S
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N	13° 35' 42" E	2° 58' 40" S																																																																											
O	13° 38' 17" E	2° 58' 40" S																																																																											
P	13° 38' 17" E	2° 53' 00" S																																																																											
Q	13° 37' 50" E	2° 53' 00" S																																																																											
R	13° 37' 51" E	2° 48' 53" S																																																																											
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T	13° 37' 22" E	2° 40' 17" S																																																																											
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X	13° 41' 35" E	2° 27' 37" S																																																																											
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Resistivity survey work was undertaken by the United Nations Development Programme between 1967 and 1969 which reported a strong resistivity contrast between the mineralised and unmineralised lithologies.																																																																											
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The mineralisation of the Zanaga deposit comprises a series of Itabirite sequences steeply dipping to the east at 60-65°.																																																																											

Criteria	JORC Code explanation	Commentary
		<p>The deposit is overprinted by a horizontal weathering profile with colluvium and canga at surface (40-60% Fe, 4-8 m), underlain by goethitic itabirite (45% Fe, 6-10 m), friable itabirite (40-45% Fe, 10-26 m), competent itabirite (35-40% Fe, 6-24 m), transition material (30-35% Fe in places, 4-12 m thick) and the primary unweathered magnetite BIF (25-30% Fe). Overall, the eastern units are higher grade than the western units.</p> <p>The geological descriptions reveal that the Canga, Colluvium and goethitic units are structureless and do not have a prominent banding in the rock which implies that the base of oxidation is at the base of the goethitic clay. Immediately below this, the units may still display some oxidation but are more similar to saprock with the original mineralised structures still visible, until the fresh BIF is reached.</p> <p>The contacts between the different weathering profiles are generally transitional over a distance of up to 5 m in places but more usually 1-2 m.</p>
Drill hole Information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<p>It is the Competent Person's opinion that listing this material would not add any further material understanding of the deposit and Mineral Resource. The Project is at an advanced stage of exploration, resource development and mine planning. Furthermore, no Exploration Results are specifically reported.</p> <p>However, all available drill hole data is contained in the SQL database.</p> <p>The following table summarises drilling data used in the MRE. It has been adapted from "JORC Technical Report on the September 2013 Mineral Resource Update of the Zanaga Iron Ore Project, Republic of Congo" (referred to hereafter as the "2013 JORC Technical Report").</p>



Criteria	JORC Code explanation	Commentary																																																	
		<table><tr><th rowspan="2">Area</th><th rowspan="2">Hole Type</th><th colspan="3">Total 2013 MRE Update</th></tr><tr><th># Drill holes</th><th>Metres</th><th># 2m Composites</th></tr><tr><td rowspan="2">North</td><td>DD</td><td>198</td><td>49,841</td><td>12,425</td></tr><tr><td>RC</td><td>512</td><td>63,368</td><td>18,036</td></tr><tr><td rowspan="2">Central</td><td>DD</td><td>91</td><td>19,268</td><td>3,529</td></tr><tr><td>RC</td><td>325</td><td>33,295</td><td>8,832</td></tr><tr><td rowspan="2">South</td><td>DD</td><td>34</td><td>5,504</td><td>952</td></tr><tr><td>RC</td><td>71</td><td>6,777</td><td>1,506</td></tr><tr><td rowspan="2">Total</td><td>DD</td><td>323</td><td>74,614</td><td>16,906</td></tr><tr><td>RC</td><td>908</td><td>103,439</td><td>28,374</td></tr><tr><td colspan="2">Grand Total</td><td>1,231</td><td>178,053</td><td>45,280</td></tr></table> <p>Drill holes ranged from 8 to 318 m for RC holes, and 14 to 657 m for DD holes. The average depth for RC holes was 114 m and for DD holes was 231 m.</p> <p>178,053 m of drilling was available for use in the MRE, with 74,614 m coming from 323 DD holes and 103,439 m coming from 908 RC holes.</p> <p>The vast majority of holes were drilled between 55° and 70° to the west.</p>	Area	Hole Type	Total 2013 MRE Update			# Drill holes	Metres	# 2m Composites	North	DD	198	49,841	12,425	RC	512	63,368	18,036	Central	DD	91	19,268	3,529	RC	325	33,295	8,832	South	DD	34	5,504	952	RC	71	6,777	1,506	Total	DD	323	74,614	16,906	RC	908	103,439	28,374	Grand Total		1,231	178,053	45,280
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Data aggregation methods	<ul style="list-style-type: none"><li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li><li>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.</li><li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li></ul>	<p>Samples were composited to 2 m intervals for use in the estimation. No bottom cut for Fe was applied.</p> <p>Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, %S, %P, LOI, MnO, MgO, CaO, K<sub>2</sub>O and Na<sub>2</sub>O composite values were top-cut in some domains, where necessary.</p>																																																	
Relationship between mineralisation widths and	<ul style="list-style-type: none"><li>These relationships are particularly important in the reporting of Exploration Results.</li><li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li><li>If it is not known and only the down hole lengths are reported, there</li></ul>	<p>Drill holes are inclined to the west, typically at an angle of 60° in order to try to intercept the true thickness of mineralisation.</p>																																																	

Criteria	JORC Code explanation	Commentary
intercept lengths	should be a clear statement to this effect (eg 'down hole length, true width not known').	<p>The drilling was generally perpendicular to the geometry of the orebody. In a small number of cases, there may be sub-optimal intersections due to locally changing orientations of the orebody due to faulting and intrusions, but the proportion is considered low relative to the amount of data, and is not likely to introduce bias into the dataset.</p>
Diagrams	<ul style="list-style-type: none"><li>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.</li></ul>	<p>Maps and sections showing the location of the mineralisation are presented in the 2013 Technical Report, which includes plan views, cross sections showing the location of the deposit, the data, interpretations, resistivity and block model.</p>
Balanced reporting	<ul style="list-style-type: none"><li>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.</li></ul>	<p>Exploration Results are not reported here, but data used in the resource is representative of mineralisation.</p> <p>Sample intercepts have been composited so that all data is weighted equally.</p> <p>High grade outliers are managed through top cutting prior to grade estimation.</p>
Other substantive exploration data	<ul style="list-style-type: none"><li>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.</li></ul>	<p>Resistivity surveying was undertaken between 1967 and 1969 by the United Nations Development Programme.</p> <p>A small program of down-hole geophysical logging was completed in 2012. This comprised of 29 holes. This data has not been reviewed in the context of the Mineral Resource and has therefore not been used.</p> <p>Evaluation of Landsat Enhanced Thematic Mapper Satellite and SRTM elevation data of the licence area.</p> <p>Select pitting and trenching. Detailed ground mapping.</p>

Criteria	JORC Code explanation	Commentary
		<p>Airborne magnetic survey and interpretation.</p> <p>Bulk density was measured on an ongoing basis during the drill programs using the water displacement method on billets of core. QAQC was completed on bulk density measurements through spot-checks of the bulk density dataset and re-measurement using the same procedures.</p>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<p>The project is currently in the advanced exploration / resource development / mine planning phase.</p> <p>A figure showing the magnetic anomaly and its 47 km extent at Zanaga is presented in the 2013 JORC Technical Report. It remains partially unexplored, but no further work is planned at present.</p>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<p>Data validation procedures are in place to ensure integrity of the data in the geological database which is housed in an SQL database with inbuilt validations, constraints and triggers. Assays were merged into the database from the laboratory assay certificates.</p> <p>The drill hole data was checked for errors and validated in Datamine before modelling of the deposit. Any apparent errors were discussed with personnel on site and investigated, with the database being corrected on site, and re-exported, prior to further work.</p>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<p>Maria O'Connor, Senior Resource Geologist, CSA, and Robyn Belcher, Principal Database Geologist, CSA, visited site on separate visits during May 2012 and March 2012 respectively. Robyn Belcher visited site</p>

Criteria	JORC Code explanation	Commentary
		<p>between 27th and 30th March 2012. During the site visit, a review and audit of the drilling, logging, sampling and data management procedures was completed.</p> <p>Malcolm Titley, Principal Consultant, CSA, and Competent Person for the MRE has not visited site. However, he supervised the site visit completed by Maria O'Connor, between 4th and 7th May 2012. Collar locations, DD core and RC chips were checked against logs, the procedure of measuring density was observed, the sample preparation procedures were observed and the sample preparation facility was inspected. The conclusions from the site visit were that sample collection procedures are to industry standard or better, and that data collected was fit for use in the MRE. Note: no drilling was observed during the site visit. The drill program for the MRE had finished in February 2012.</p>
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<p>The geological modelling of the iron-bearing zones is based on the geological logging codes of DD core and RC chips. 2D sectional interpretations of these units, snapped to drill hole intersections, were completed on drill sections at 100 and 200 m spacing along strike (over 25 km) within the defined resource area. The deposit was modelled in three contiguous blocks, termed North, Central and South.</p> <p>The majority of interpretation was completed on site and any anomalous logging was checked against chips and core.</p> <p>The mineralised units dip to the east at between 60-70°. The units have been modelled between 1 and 300 m in thickness, with the average downhole length being approximately 45 m. The northern units are the thickest, between 150 and 200 m, the central units are between 20 and 150 m, and the southern units are between 10 and 60 m in thickness. Internal waste of greater than 5 m thickness was modelled separately. In addition, the surfaces between the six material type zones were</p>

Criteria	JORC Code explanation	Commentary
		<p>generated, based on lithological logging codes, COL, ITG, ITF, ITC, ITT and BIF.</p> <p>The interpretation of colluvium differs from ITG, ITF, ITC, ITT and BIF in that mineralisation is not solely focused directly above BIF. The reason for this is that extreme weathering has mobilised it to drape over a wider area than that defined by the mineralisation wireframes. The interpretation was extended beyond the BIF units by 50 m where supported by drill data and resistivity.</p> <p>A waste surface was digitised to define sub-grade material close to surface, whose thickness was between 1 and 5 m.</p> <p>Major units were extended down to the 100 and 0 mRL based on the deepest intercept encountered along strike. Minor units, particularly in the west, which were less well supported by data, were extended to the 400 and 200 mRL.</p> <p>The continuity of grade in the other units is directly related to the continuity of the BIF units, and Fe grades decrease with depth through the various units. There are faults, some which offset or terminate mineralisation in places. There is a mapped ultramafic body that terminates mineralisation between the Central and Northern units, and several dykes are noted in the logging.</p> <p>Overall, there is good confidence in the geological interpretation of the deposit.</p>
Dimensions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>The MRE has a strike length of over 25 km. The depth below surface is approximately 500 to 600 m, while the plan width extent is approximately 1,200 m at its widest point, made up of several sub-parallel vertical units. Individual units range from approximately 5 to 500 m width.</p>

Criteria	JORC Code explanation	Commentary
		<p>The deepest mineralised drill intercept was at 0 mRL in the North, 180 mRL in the Central and 140 mRL in the south.</p>
Estimation and modelling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<p>The MRE was constrained by the wireframes as detailed in the "Geological Interpretation" section above.</p> <p>The samples within the mineralised wireframe were composited to 2 m which, given the potential bench height and average sample length is considered appropriate. No bottom cut was considered necessary for Fe. The composites were then considered for top cutting in the case of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, %S, %P, LOI, MnO, MgO, CaO, K<sub>2</sub>O, Na<sub>2</sub>O. Anomalous values were reduced to the cut value and the pre and post capping statistics for these variables do not have a significant effect on the mean grade in the majority of cases.</p> <p>17 domains were used for estimation, divided by lithology and geographically into the west and east units. In addition, the COL domain was subdivided into a low Fe grade and high Fe grade domain, and the ITG into low Fe, moderate Fe and high grade Fe domains. The geological interpretation was central to domaining, with hard boundaries modelled between COL, ITG, ITF, ITC, ITT and BIF.</p> <p>Variography was performed on the composites. Directional variograms were modelled for Fe and were modelled for the six lithological domains. The ranges varied along strike between 650 and 2,050 m, across strike between 130 and 640 m and down dip between 9 and 82 m. All variograms were horizontally orientated, except those for the BIF which were orientated with an azimuth of 010° and a dip of -70° to the east. Variograms were modelled for Al<sub>2</sub>O<sub>3</sub>, S, P, SiO<sub>2</sub> and LOI in the COL, ITG and ITF horizons, where deleterious elements are most concentrated. The normalised Fe variogram parameters were used for interpolation of</p>

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		<p>Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, %S, %P, LOI, MnO, MgO, CaO, K<sub>2</sub>O and Na<sub>2</sub>O where variograms were not modelled in the ITC, ITT and BIF.</p> <p>The estimation was completed in Micromine Software. The block model, was not rotated and has a parent cell size of 50 m x 50 m x 10 m (X, Y, Z), which is considered compatible with the drill spacing in Measured and Indicated areas. The minimum sub-block size was set as 5 m x 5 m x 1 m to honour the volume of the wireframes more accurately. The grades were interpolated by Ordinary Kriging in three search passes with increasing search radii and decreasing minimum number of samples, including a minimum number of four holes for interpolation. The zones were interpolated with samples from the lithological code. The search ellipse for estimation was orientated in the same direction as the variograms.</p> <p>Sample search rotations and neighbourhoods are presented in the following tables.</p>																																																				
		<table><tr><th rowspan="2">Material</th><th rowspan="2">Orientation</th><th colspan="3">Axes</th></tr><tr><th>Azimuth</th><th>Plunge</th><th>Rotation</th></tr><tr><td>Colluvium</td><td>All</td><td>0</td><td>0</td><td>0</td></tr><tr><td>ITG</td><td>All</td><td>0</td><td>0</td><td>0</td></tr><tr><td>ITF</td><td>All</td><td>0</td><td>0</td><td>-36</td></tr><tr><td rowspan="7">ITC/ITT/BIF</td><td>100</td><td>5</td><td>0</td><td>-55</td></tr><tr><td>200</td><td>325</td><td>0</td><td>-45</td></tr><tr><td>300</td><td>10</td><td>0</td><td>-45</td></tr><tr><td>400</td><td>0</td><td>0</td><td>-50</td></tr><tr><td>500</td><td>350</td><td>0</td><td>-60</td></tr><tr><td>600</td><td>0</td><td>0</td><td>-50</td></tr><tr><td>700</td><td>10</td><td>0</td><td>-60</td></tr></table>	Material	Orientation	Axes			Azimuth	Plunge	Rotation	Colluvium	All	0	0	0	ITG	All	0	0	0	ITF	All	0	0	-36	ITC/ITT/BIF	100	5	0	-55	200	325	0	-45	300	10	0	-45	400	0	0	-50	500	350	0	-60	600	0	0	-50	700	10	0	-60
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Grade estimation was completed for Fe, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, S, P, LOI, Mn, MgO, CaO, K<sub>2</sub>O and Na<sub>2</sub>O to fully characterise the mineralisation in terms of product specifications.

The model was validated by visual checks, comparing the global average grade against the output block model grades and the generation of swath plots by easting and northing. (For further details see the JORC Technical Report 2013).

Production has not commenced at Zanaga, and therefore there is no production data available for reconciliation.

A previous MRE was completed by SRK in 2011. A further 284 holes for 51,044 m were drilled and assays returned from a further 135 holes that had not been available for that MRE. The geological interpretation was in line with the original MRE and completed on site, updated to reflect the new data, and extended at depth (100 m beyond intercepts) where drilling supported continuity of the BIF units. A check estimate using IDW

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		<p>was completed alongside the MRE and compared closely with the reported MRE.</p> <p>Recovery of by-products is not considered relevant for this style of deposit.</p> <p>Work completed during Variography to assess the use of the Fe variogram for other variables showed correlation with Fe varies by unit. The following table shows the correlation coefficient results of cross-validation of other variables using the Fe variogram.</p> <table><tr><th>Lith</th><th>Al<sub>2</sub>O<sub>3</sub></th><th>CaO</th><th>SiO<sub>2</sub></th><th>S</th><th>P</th><th>LOI</th><th>MnO</th><th>MgO</th><th>K<sub>2</sub>O</th><th>Na<sub>2</sub>O</th></tr><tr><td>Colluvium</td><td>0.72</td><td>0.30</td><td>0.78</td><td>0.79</td><td>0.78</td><td>0.72</td><td>0.27</td><td>0.26</td><td>0.54</td><td>0.39</td></tr><tr><td>ITG</td><td>0.79</td><td>0.20</td><td>0.86</td><td>0.84</td><td>0.64</td><td>0.82</td><td>0.45</td><td>0.34</td><td>0.61</td><td>0.17</td></tr><tr><td>ITF</td><td>0.81</td><td>0.14</td><td>0.89</td><td>0.65</td><td>0.74</td><td>0.84</td><td>0.43</td><td>0.42</td><td>0.53</td><td>0.21</td></tr><tr><td>ITC</td><td>0.79</td><td>0.73</td><td>0.91</td><td>0.52</td><td>0.68</td><td>0.81</td><td>0.57</td><td>0.65</td><td>0.60</td><td>0.69</td></tr><tr><td>ITT</td><td>0.75</td><td>0.86</td><td>0.94</td><td>0.45</td><td>0.74</td><td>0.74</td><td>0.49</td><td>0.70</td><td>0.65</td><td>0.63</td></tr><tr><td>BIF</td><td>0.75</td><td>0.81</td><td>0.95</td><td>0.49</td><td>0.81</td><td>0.69</td><td>0.80</td><td>0.73</td><td>0.69</td><td>0.65</td></tr></table> <p>The correlation between Fe and CaO, MnO and MgO is poor in certain units, and this may be related to the presence of mafic/intermediate intrusives or faulting, resulting in a different control on the distribution. Further work could be completed on this by modelling different orientations on for these variables, which would be unlikely to have a major effect on the total chemistry of the block. However, these elements do not appear to impact the overall DTR recovery and concentrate grade which counters any urgency on this work.</p>	Lith	Al <sub>2</sub> O <sub>3</sub>	CaO	SiO <sub>2</sub>	S	P	LOI	MnO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	Colluvium	0.72	0.30	0.78	0.79	0.78	0.72	0.27	0.26	0.54	0.39	ITG	0.79	0.20	0.86	0.84	0.64	0.82	0.45	0.34	0.61	0.17	ITF	0.81	0.14	0.89	0.65	0.74	0.84	0.43	0.42	0.53	0.21	ITC	0.79	0.73	0.91	0.52	0.68	0.81	0.57	0.65	0.60	0.69	ITT	0.75	0.86	0.94	0.45	0.74	0.74	0.49	0.70	0.65	0.63	BIF	0.75	0.81	0.95	0.49	0.81	0.69	0.80	0.73	0.69	0.65
Lith	Al <sub>2</sub> O <sub>3</sub>	CaO	SiO <sub>2</sub>	S	P	LOI	MnO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O																																																																					
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Moisture	<ul style="list-style-type: none"><li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li></ul>	The resource estimates are expressed on a dry tonnage basis and in-situ moisture content is not estimated.																																																																													
Cut-off parameters	<ul style="list-style-type: none"><li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li></ul>	Grade or deleterious element cut-off was not applied in the MRE. The MRE was reported on a global basis.																																																																													

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>CSA undertook a preliminary Whittle optimisation on the grade model prior to classification to satisfy the criteria that the resource reported is "potentially economic". This was used to constrain the mineralisation for reporting purposes.</p> <p>Benchmarked costs were used against a selling price of 130 USD/dmtu with 5% mining dilution.</p> <p>The Whittle parameters used are listed in the 2013 JORC Technical Report and reproduced below.</p>



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		<table> <tr> <th>Revenue</th><th>units</th><th>Model</th></tr> <tr> <td>Iron price</td><td>(USDc/dmtu)</td><td>130</td></tr> <tr> <td>Government royalty</td><td>(%)</td><td>3%</td></tr> <tr> <td>Discount rate</td><td>(%)</td><td>0%</td></tr> <tr> <td><b>Mining</b></td><td></td><td></td></tr> <tr> <td>Mining recovery</td><td>(%)</td><td>95.0%</td></tr> <tr> <td>Mining Dilution</td><td>(%)</td><td>5.0%</td></tr> <tr> <td>Operation mining cost at surface (waste)</td><td>(USD/t)</td><td>1.04</td></tr> <tr> <td>Operation mining cost at surface (ore free dig)</td><td>(USD/t)</td><td>0.99</td></tr> <tr> <td>Operation mining cost at surface (ore D&amp;B)</td><td>(USD/t)</td><td>1.12</td></tr> <tr> <td>Incremental mining cost</td><td>(USD/t/10m<sub>bench</sub>)</td><td>0.025</td></tr> <tr> <td><b>Processing</b></td><td></td><td></td></tr> <tr> <td>Hematite processing cost</td><td>(USD/t<sub>ore</sub>)</td><td>3.11</td></tr> <tr> <td>Magnetite processing cost</td><td>(USD/t<sub>ore</sub>)</td><td>2.41</td></tr> <tr> <td>Tailing cost</td><td>(USD/t<sub>tailings</sub>)</td><td>0.99</td></tr> <tr> <td>Total Hematite Processing Cost</td><td>(USD/t<sub>ore</sub>)</td><td>3.66</td></tr> <tr> <td>Total Magnetite Processing Cost</td><td>(USD/t<sub>ore</sub>)</td><td>3.07</td></tr> <tr> <td>General &amp; administrative cost</td><td>(USD/t<sub>ore</sub>)</td><td>0.29</td></tr> <tr> <td>Transport</td><td>(USD/t<sub>conc</sub>)</td><td>5.84</td></tr> <tr> <td>Port</td><td>(USD/t<sub>conc</sub>)</td><td>1.06</td></tr> <tr> <td>Total Transport</td><td>(USD/t<sub>ore</sub>)</td><td></td></tr> <tr> <td>Total Transport Hematite</td><td>(USD/t<sub>ore</sub>)</td><td>3.09</td></tr> <tr> <td>Total Transport Magnetite</td><td>(USD/t<sub>ore</sub>)</td><td>2.32</td></tr> <tr> <td>Total Cost Hematite</td><td>(USD/t<sub>ore</sub>)</td><td>7.04</td></tr> <tr> <td>Total Cost Magnetite</td><td>(USD/t<sub>ore</sub>)</td><td>5.68</td></tr> <tr> <td>COL Fe recovery</td><td>(%)</td><td>59.2%</td></tr> <tr> <td>ITG Fe recovery</td><td>(%)</td><td>72.4%</td></tr> <tr> <td>ITF Fe recovery</td><td>(%)</td><td>69.9%</td></tr> <tr> <td>ITC Fe recovery</td><td>(%)</td><td>53.3%</td></tr> <tr> <td>ITT Fe recovery</td><td>(%)</td><td>65.1%</td></tr> <tr> <td>BIF Fe recovery</td><td>(%)</td><td>74.8%</td></tr> </table>	Revenue	units	Model	Iron price	(USDc/dmtu)	130	Government royalty	(%)	3%	Discount rate	(%)	0%	<b>Mining</b>			Mining recovery	(%)	95.0%	Mining Dilution	(%)	5.0%	Operation mining cost at surface (waste)	(USD/t)	1.04	Operation mining cost at surface (ore free dig)	(USD/t)	0.99	Operation mining cost at surface (ore D&B)	(USD/t)	1.12	Incremental mining cost	(USD/t/10m <sub>bench</sub> )	0.025	<b>Processing</b>			Hematite processing cost	(USD/t <sub>ore</sub> )	3.11	Magnetite processing cost	(USD/t <sub>ore</sub> )	2.41	Tailing cost	(USD/t <sub>tailings</sub> )	0.99	Total Hematite Processing Cost	(USD/t <sub>ore</sub> )	3.66	Total Magnetite Processing Cost	(USD/t <sub>ore</sub> )	3.07	General & administrative cost	(USD/t <sub>ore</sub> )	0.29	Transport	(USD/t <sub>conc</sub> )	5.84	Port	(USD/t <sub>conc</sub> )	1.06	Total Transport	(USD/t <sub>ore</sub> )		Total Transport Hematite	(USD/t <sub>ore</sub> )	3.09	Total Transport Magnetite	(USD/t <sub>ore</sub> )	2.32	Total Cost Hematite	(USD/t <sub>ore</sub> )	7.04	Total Cost Magnetite	(USD/t <sub>ore</sub> )	5.68	COL Fe recovery	(%)	59.2%	ITG Fe recovery	(%)	72.4%	ITF Fe recovery	(%)	69.9%	ITC Fe recovery	(%)	53.3%	ITT Fe recovery	(%)	65.1%	BIF Fe recovery	(%)	74.8%
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Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>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</li> </ul>	Davis Tube Recovery test work was completed on 1,166 samples which covered ITC, ITT and BIF (the magnetite bearing lithologies). Bench scale grind-recovery tests were completed to determine the optimum grind size required to produce a saleable quality magnetite concentrate. Based																																																																																													

Criteria	JORC Code explanation	Commentary
	<p>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.</p>	<p>on this test work, samples have a P97 of 75 microns with an expected P80 of 45 microns. The average mass recovery for the samples was 41% for a recovered concentrate grade of 68%.</p> <p>More detail has been provided in Section 4 Estimation and Reporting of Ore Reserves, which was reported in the Updated Reserve Statement for Zanaga Iron Ore Project, 30th September 2014.</p>
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>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.</li> </ul>	Detail regarding Environmental factors or assumptions has been provided in Section 4 Estimation and Reporting of Ore Reserves, which was reported in the Updated Reserve Statement for Zanaga Iron Ore Project, 30th September 2014.
Bulk density	<ul style="list-style-type: none"> <li>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.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<p>In-situ dry bulk density measurements were estimated from DD core using the water displacement method which is considered appropriate for the characteristics of the majority of mineralisation at Zanaga i.e. competent core with very low permeability. Core was coated in wax as part of the procedures.</p> <p>In-situ dry bulk density ("BD") data was collected in a systematic way throughout the deposit and there is a substantial dataset from all material types to adequately ascertain the tonnage factor and be considered representative of the deposit. 21,451 BD values were available and BD values less than 1.5 t/m<sup>3</sup> and greater than 4.0 t/m<sup>3</sup> were removed as outliers in the dataset.</p> <p>CSA reviewed density by grade and by lithology unit and results suggested that variations in bulk density were most sensitive to lithology.</p>

Criteria	JORC Code explanation	Commentary
		<p>Variability was low within lithological units, and there was no obvious relationship between grade and density within these units. Where density was a function of grade, it appeared to be with depth, which correlated to lithological boundaries.</p> <p>CSA assigned densities by lithology unit. Other methods of estimating density were considered e.g. regression and block estimation. On balance, CSA decided to assign average densities due to the lack of variability within lithological units. Regressions can be strongly influenced by the existence of outliers, while estimation of density through Kriging for example, can result in problems during production and reconciliation.</p> <p>Where lithologies are more friable, and likely to crumble when cored during DD drilling, densities may be difficult to verify. The volume of such material is a relatively small proportion of the resource but in situ dry bulk density can be estimated for bulk samples obtained during any small scale excavations for mining or metallurgical test work. Simple volume and mass checks should be taken and bulk density values compared with those already produced.</p>
Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<p>The MRE for the Zanaga Project has been classified as Measured, Indicated and Inferred Mineral Resources, based on the guidelines specified in the JORC Code (2012 Edition). CSA has considered the following in determining the classification of the MRE:</p> <ul style="list-style-type: none"> <li>Adequate validation of drilling, sampling and geological process completed during two site visits by Robyn Belcher, Principal Data Geologist, and Maria O'Connor, Senior Resource Geologist, CSA, in March and May 2012. The site visits included validation of tenement data, drill data, drilling and sampling procedures (note: no drilling was taking place during either visit), review of the</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>geological mapping and core/chip logging and field checks on existing hole collars and outcrop;</p> <ul style="list-style-type: none"> <li>Adequate geological evidence for continuity of mineralisation in the reporting of the mineral resource;</li> <li>Completion of a sampling and multi element assaying program suitable to estimate the grade of the mineralised material;</li> <li>Adequate DD core and RC chip sampling;</li> <li>Adequate QAQC controls in place to validate data used and ensure control on the estimation of the in-situ grade of mineralised material;</li> <li>Adequate drill spacing nominally at 100 m east-west and 100 m north-south to define Measured material, 200 m east-west and 200 m north-south to define Indicated material and a whittle shell to assist in constraining what deep material is classified as Inferred Mineral resources;</li> <li>Robust variography with good cross validation results which supported the ranges of Fe grade continuity indicated by drilling as well as the continuity of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, S, P and LOI in COL, ITG and ITF where variability in these deleterious variables are likely to be at their highest;</li> <li>Adequate twinning of RC drill holes to validate grades;</li> <li>Adequate DD core sampling to determine the dry in situ bulk density in order to estimate the tonnage of mineralisation;</li> <li>Completion of Davis Tube Recovery test work demonstrating the potential processing requirements, indicative recovery factors</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>and potential quality of a saleable magnetite concentrate suggesting that Fe can be recovered from the lithology units with minimal contaminant issues.</p> <p>The additional criteria used to classify this MRE as Indicated and Measured Mineral Resources were:</p> <p>For Indicated Mineral Resources:</p> <ul style="list-style-type: none"> <li>Block grade estimated using an average sample distance of between 100 and 200 m;</li> <li>Slope &gt;0.4.</li> </ul> <p>For Measured Mineral Resources:</p> <ul style="list-style-type: none"> <li>Block grade estimated using an average sample distance <math>\leq</math> 100 m;</li> <li>Slope &gt;0.6.</li> </ul> <p>Block-by-block estimates of slope were smoothed into geologically reasonable and coherent zones that reflect a realistic level of geological and grade estimation confidence taking into account the amount, distribution and quality of data by wireframing.</p> <p>The remaining blocks have been classified as Inferred Mineral Resources if:</p> <ul style="list-style-type: none"> <li>they are within the resource shell guided by the whittle optimisation; and</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>they do not meet the criteria specified above for Indicated or Measured Mineral Resources.</li> </ul> <p>The only exception to point (a) are units close to the surface, namely COL, ITG and ITF, which fall outside the conceptual pit shell, but have been included in the MRE as Inferred Mineral resources. CSA is satisfied that the shallow nature of these units means that these units can be considered as having potential to be economically extracted, as required under JORC (2012) and therefore satisfy the criteria of being included as resources in the MRE.</p> <p>The classification of the MRE reflects the Competent Person's view of the deposit</p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<p>In house CSA reviews have been conducted prior to the release of the MRE to Glencore.</p> <p>SRK completed a review of the MRE prior to work commencing on the estimation of ore reserves. This is outlined in JORC Table 1 Section 4 Estimation and Reporting of Ore Reserves, reported in the Updated Reserve Statement for Zanaga Iron Ore Project, 30th September 2014.</p>
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the</li> </ul>	<p>The MREs have been prepared, classified and reported in accordance with the JORC (2012) code by CSA.</p> <p>Resource modelling has been completed using drilling data and geological interpretation to produce a resource within a lithological boundary (and therefore at a 0% Fe cut-off).</p> <p>The total Mineral Resource (as at 30th September 2013) comprises 2.33 Bt of Measured Mineral Resources at 33.7% Fe, 2.46 Bt of Indicated</p>



Criteria	JORC Code explanation	Commentary
	<i>estimate should be compared with production data, where available.</i>	<p>Mineral Resources at 30.4% Fe and 2.1 Bt of Inferred Mineral Resources at 31.0% Fe.</p> <p>The risks with respect to grade variability are considered low due to the low variability of Fe grade particularly in the magnetite bearing material where the majority of the resource lies.</p> <p>The confidence level is reflected in the MRE classification of the resource.</p> <p>If excavations are completed to estimate in-situ dry bulk density, particularly in the friable, less competent hematite units (representing 11% of the M&amp;I material), this information can be used to verify the density data used in the MRE. The high level of drilling density and modelling of the deposit show its geological and grade continuity and provides a high level of confidence for the MRE.</p> <p>Mining of the deposit has not commenced and therefore production data is not available.</p> <p>The MRE models are provided as a basis for long term planning and mine design, and are not designed to be sufficient for short term planning and scheduling.</p>

## Reserve Appendix

JORC Code, 2012 Edition Table 4 for Zanaga Iron Ore Project, located in Republic of Congo, as at September 2013

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<p>The Mineral Resources were estimated by CSA global and this is detailed in “<i>JORC Technical Report on the August 2012 Mineral Resource Update, Zanaga Iron Ore Project, Republic of Congo for Xstrata Iron Ore</i>” authored by Malcom Titley and Maria O’Connor of CSA Global.</p> <p>The Mineral Resources are reported inclusive of the Ore Reserves.</p>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<p>A site visit was undertaken by the Competent Person in January 2014.</p>
<b>Study status</b>	<ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>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.</li> </ul>	<p>The Feasibility Study (2014) assessed three different production options. The study level varies between pre-feasibility and feasibility for the various study disciplines.</p> <p>The deposit had two pre-feasibility study options completed in 2010 and 2012 which evaluated product rates of 45Mtpa and 30Mtpa respectively.</p>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	<p>A variable Fe head grade cut-off has been applied by each lithology:</p> <p>COL – 30%Fe (Processing Cut-Off)</p> <p>ITG – 11%Fe (Economic Cut-Off)</p> <p>ITF – 8%Fe (Economic Cut-Off)</p> <p>ITC – 9%Fe (Economic Cut-Off)</p> <p>ITT – 15%Fe (Processing Cut-Off)</p> <p>BIF – 15%Fe (Processing Cut-Off)</p>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>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 optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<p><b>Geotechnics</b></p> <p>Weathered Rock (pit depth &lt; 30m) – 35° OSA (overall slope angle)</p> <p>Weathered Rock (pit depth &gt;30m) – 30 ° OSA</p> <p>Footwall Fresh Rock – 40 ° OSA</p> <p>Hangingwall Fresh Rock – 50 ° OSA</p> <p>The geotechnical design criteria for the pit slopes are considered to be at a Feasibility Study level.</p> <p><b>Grade Control</b></p> <p>Standard blasthole sampling will be used for grade control. No material pre-production drilling has been planned.</p> <p><b>Hematite - Stage 1</b></p> <p>The proposed mining method is a standard truck and shovel method on a 5m bench height. Drill and blast is only required at the ITC lithological boundary. Overland conveyors are required to transport ore from the four main mining areas to the plant.</p> <p>The resource model was regularized to a selective mining unit of 10m by 10m by 5m resulting in overall mining loss and dilution</p>

Criteria	JORC Code explanation	Commentary
		<p>modifying factors of 1% and 6% respectively for the COL, ITG, ITF and ITC lithologies.</p> <p>The Ore Reserves are reported within a pit design which is based on a pit optimisation using a US\$121/dmtu metal price when constrained to the hematite material. It is noted that there is no material increase in pit size above the US\$80/dmtu revenue factor. The pit optimisation was run inclusive of Measured, Indicated and Inferred Classified Mineral Resources. The Inferred Classified Mineral Resources represent approximately 12% of the ore within the Stage 1 pit design.</p> <p>The pits have been designed to a minimum bench width of 30m to accommodate a maximum truck size of 130t capacity.</p> <p>The stage 1 plan includes Measured, Indicated and Inferred Classified Mineral Resources. The Inferred Classified material accounts for 1.2% (3Mt), 2.2% (7Mt) and 25.1% (115Mt) of the ex-pit classified plant feed for years 0 to 10, 11 to 20 and 21 to year respectively. The exclusion of the Inferred Classified Mineral Resources in the financial model does not have a material difference to the project value.</p> <p><b>Magnetite - Stage 2</b></p> <p>The proposed mining method is a standard truck and shovel method on a 15m bench height. Drill and blast is required. Overland conveyors are required to transport ore from the four main mining areas to the plant.</p> <p>Global modifying factors of 5% and 5% have been applied for mining loss and dilution for the ITT and BIF lithologies. These global factors are reflective of the estimated losses and dilution modelled for the Zanaga Pre-Feasibility study in the North Region at a 15m bench height. No grade modifications have been made to the deleterious elements.</p> <p>The Ore Reserves are reported within a US\$33/dmtu pit shell constrained to the North Region. The pit optimization was run inclusive of Measured and Indicated Classified Mineral Resources. There are no material quantities of Inferred Classified Mineral Resources within the Stage 2 pit shell.</p> <p>The pre-feasibility study (2012) demonstrated that there is no material difference in ore and waste tonnages when the engineered pit is compared with the optimized pit shell. It is expected that an engineered design for the magnetite phase would not have a material impact on the pit shell ore and waste tonnages.</p> <p>The stage 2 plan only includes Measured and Indicated Classified Mineral Resources.</p>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></li> <li><i>Whether the metallurgical process is well-tested technology or novel in nature.</i></li> <li><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></li> <li><i>Any assumptions or allowances made for deleterious elements.</i></li> <li><i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered</i></li> </ul>	<p><b>Hematite Circuit (Stage 1):</b></p> <p>The hematite beneficiation circuit is based on gravity separation using spirals, with a supplementary recovery stage using flotation. This is a well-tested technology.</p> <p>Ore is crushed and then milled using SAG mills to -0.6mm, following which it is de-slimed (slimes to tailings), then split into Coarse and Fine fractions, with each fraction subjected to two stages (rougher and cleaner) of spiral separation. The spiral stages produce Concentrate, Tailings (from the rougher stage) and Middlings (rougher middlings plus cleaner tailings). The Middlings are reground (coarse stream only) to -0.25mm then subjected to a</p>

Criteria	JORC Code explanation	Commentary
	<p><i>representative of the orebody as a whole.</i></p> <ul style="list-style-type: none"> <li>• <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></li> </ul>	<p>further two stage spiral circuit, again producing Concentrate, Tailings and Middlings.</p> <p>These Middlings are further reground (to 65µm) and de-slimed (slimes to tailings), with the de-slimed material subjected to reverse flotation for silica rejection. Flotation produces Concentrate and Tailings. The combined Concentrate streams are further reground to meet the requirements of the slurry pipeline.</p> <p>Testwork has been undertaken in support of the development of the proposed flowsheet. However, SRK considers that the level of testwork undertaken and reported is deficient with regard to the following aspects:</p> <ul style="list-style-type: none"> <li>• Gravity separation testwork has been undertaken using shaking tables, which provide a close but not exact reproduction of the performance of spirals. In addition, the tabling work was undertaken on a "whole" sample, i.e. not in a Coarse / Fine configuration, and the entire middlings stream was reground. For a Feasibility Study level of investigation, SRK would expect a spiral pilot plant to have been undertaken. The Glencore FS report refers to some preliminary spiral work as being in progress, but no results of such a program are reported.</li> <li>• Only a small number of bench scale flotation tests have been undertaken. While these were reasonably successful, the flowsheet envisages feeding much lower grade material to the flotation circuit than was tested, and the estimated mass recoveries to the floated phase are very high as a proportion of the feed material. SRK therefore expects that the flotation performance may be less successful than is being assumed. In addition, SRK notes that the flotation stage recoveries assume a constant figure irrespective of lithology type and head grade. Again, particularly given the extrapolation from testwork to the plant design criteria, SRK would expect to see much more testwork having been conducted to support a FS level of investigation. However, SRK notes that the contribution of the flotation stage to the overall product is small.</li> <li>• Limited SAG mill testwork has been undertaken and the results indicate larger sized SAG mills than planned may be required. Additional testwork will be required prior to finalizing the mill sizing during basic engineering.</li> </ul> <p>The methodology used to develop the operating cost for the Stage 1 beneficiation plant is appropriate for a FS. However, given the uncertainty over the specification of the SAG mills, and given that (a) power is the largest contributor to the operating cost and (b) the largest power consumers in the plant are the SAG mills, SRK believes that sufficient contingency should be added to the financial evaluation to reflect the precision of the operating cost estimate.</p> <p>Regression relationships have been developed between Fe head grade and Fe recovery for the three lithology types that represent the Phase 1</p>

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		<p>feed to the Stage 1 plant (COL, ITG and ITF). These relationships appear to be reasonable based on the testwork conducted, bearing in mind the use of a constant recovery figure used for the flotation stage. However, a constant Fe recovery of 70% is assumed for the ITC lithology type, which is a key component of the Phase 2 operation of the Stage 1 plant. This recovery figure is not well supported by testwork data.</p> <p><b>Magnetite circuit (Stage 2):</b></p> <p>The magnetite beneficiation circuit assumes a conventional magnetite separation configuration based on the use of sequential stages of wet Low Intensity Magnetic Separation (LIMS). This is well tested technology.</p> <p>The flowsheet envisages three stages of grinding, each followed by a stage of LIMS. The first grinding stage will be using AG mills, the second using pebble mills, and the third using a ultrafine grinding mill, such that the feed to the third stage of LIMS is already of a size suitable for slurry pipeline transportation.</p> <p>The Stage 2 plant design is only at a PFS stage of investigation and cost estimation. SRK concurs with this assessment; the previous study into the processing of this material utilised a different flowsheet, and so the testwork used to support the proposed flowsheet uses relatively basic Davis Tube Test results. However, this type of testwork is appropriate for magnetite ores, certainly up to a PFS level of investigation.</p> <p>Constant Fe recovery figures have been used for the two Magnetite Circuit lithology types: 75% for ITT and 80% for BIF. The Davis Tube Test results reported indicate that a non-linear relationship is more appropriate, however as an average figure, the figure of 80% for the BIF material is probably reasonable. The Glencore FS report notes that the 75% figure assumed for the ITT material is "now considered too aggressive", however given that the ITT material represents only 12% of the planned Stage 2 ore feed (the remainder being the BIF material), the overall impact of the difference between the assumed figure of 75% and a more reasonable "flat line" figure of the order of 70% is probably not material.</p>
<b>Environmental</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<p>An ESIA for the project has been undertaken and the ESIA report was submitted to the regulatory authorities in early 2014 for review and approval. Receipt of the environmental permit is a prerequisite to receipt of the mining licence.</p> <p>The ESIA states that the underlying rocks do not contain compounds with acid generation potential, and therefore the risk of acid rock drainage or metals leaching is unlikely. Separate environmental approvals for waste storage facilities are not currently required in the Republic of Congo.</p>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<p><b>Infrastructure</b></p> <p>A series of terraced plateaux are required to support the proposed mine site infrastructure, which will be expanded to match the increase in production. Run of mine will be transported by overland conveyor to the beneficiation and concentrate slurry batching plant.</p>

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		<p>The RoC government will be responsible for developing all local, diversion and access roads.</p> <p>During Stage 1, 12Mtpa of concentrate will be transported by a 367km long slurry pipeline to a new port facility 30km from Pointe Noire. A second slurry pipeline will be required to transport the additional 18Mtpa of concentrate during Stage 2.</p> <p>Raw and processing water will be drawn from a series of surface water attenuation reservoirs, recycling within the process circuit and reclamation from the tailings storage facilities. Package water treatment and waste water plants will be provided to supply drinking water and treat foul water.</p> <p>Labour will be predominantly sourced from within RoC with requirements for expatriates planned to reduce over the initial 11 years of operation. Dedicated workforce camps will be provided at the mine and port sites.</p> <p>Two 158km and 200km long, 220kV transmission lines will connect the mine site with existing national power infrastructure. There is sufficient existing generation capacity to support Stage 1, although daily blackouts present a project risk. Additional generation capacity is required to support Stage 2. The RoC power authority will be responsible for all power infrastructure capital investment.</p> <p>At the port site, following dewatering activities, concentrate will be stored in conventional open stockyards.</p> <p>During Stage 1, concentrate will be transported along a 625m long jetty and loaded onto 12,500DWT transshipment vessels, protected by a detached 385m long breakwater. Transshipment operations will load 250,000DWT Capsize ocean going vessels approximately 3 nautical miles from shore.</p> <p>To support direct loading of 250,000DWT vessels during Stage 2, the jetty will be extended by 1.33km, with additional capital dredging required to create an approach channel and turning basin. Dewatering and stockyard infrastructure will also be expanded.</p> <p>During operation all spares and consumables will be received at the existing PAPN port and transported to the mine site by road.</p> <p>There is an opportunity to export 2 to 6 Mtpa of DSO during Stage 1 using road haulage, existing rail infrastructure and a new berth at existing PAPN port. This opportunity has not been considered in depth and is dependent upon access to existing rail infrastructure.</p> <p><b>Tailings</b></p> <p>The first cell within the facility (TMF 1) will be developed in the catchment area located immediately west of the plant site. This will provide sufficient storage for 295Mt of tailings over the first 15 years of operations.</p> <p>The second tailings dam (TMF 2) will be constructed during Year 15 of operations, thus allowing deposition to commence in this area at year 16. This area will provide storage for a total of 369Mt of tailings.</p> <p>The stage 2 option involves deposition of 295Mt in TSF 1 over a period of 12 years and follows the same initial sequence as stage 1. Upon reaching full capacity, deposition will switch to a new cell (TSF 3) located to the west</p>

Criteria	JORC Code explanation	Commentary												
		of the northern extent of the mineralised zone. Previously called the ‘North TSF Option’ (SRK, 2010), this catchment will be developed due to the proximity to a second plant (Plant 2), which will be commissioned as part of the expanded case. The remaining 1,043Mt of tailings will be stored in TSF 3, which will be raised to a maximum elevation of 596.5mRL.												
Costs	<ul style="list-style-type: none"><li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li><li>The methodology used to estimate operating costs.</li><li>Allowances made for the content of deleterious elements.</li><li>The source of exchange rates used in the study.</li><li>Derivation of transportation charges.</li><li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li><li>The allowances made for royalties payable, both Government and private.</li></ul>	<p>Capital and operating costs have been estimated for both Stage 1 and Stage 2 of the project for a 30 year project period to achieve a 30 Mtpa product rate. The capital costs are estimated in USD with a Q1 2014 base date. Estimations of project capital costs are based on first principals build up. Some cost estimates from the previous ZIOP PFS’s have been escalated and incorporated into the FS.</p> <p>Adjustments have been made to the IODEX 62% pricing to include a Fe unit and quality adjustment for the two products.</p> <p>Transport changes are based on the slurry pipeline, port and transshipping operating costs.</p> <p>All costs and revenues have been estimates in USD using the following exchange rates:</p> <table><tr><td>GBP</td><td>UK Pound</td></tr><tr><td>EUR</td><td>Euro</td></tr><tr><td>CHF</td><td>Swiss Franc</td></tr><tr><td>AUD</td><td>Australian Dollar</td></tr><tr><td>XAF</td><td>CFA Franc</td></tr><tr><td>ZAR</td><td>SA Rand</td></tr></table> <p>A 3% royalty on revenues is payable to the government.</p> <p>The government maintains 10% free carry equity in the project.</p>	GBP	UK Pound	EUR	Euro	CHF	Swiss Franc	AUD	Australian Dollar	XAF	CFA Franc	ZAR	SA Rand
GBP	UK Pound													
EUR	Euro													
CHF	Swiss Franc													
AUD	Australian Dollar													
XAF	CFA Franc													
ZAR	SA Rand													
Revenue factors	<ul style="list-style-type: none"><li>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.</li><li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li></ul>	<p>Long term price assumptions used in the optimisation of the mining study, as at May 2014, were based on an IODEX 62%Fe forecast of US\$100/t<sub>dry</sub> (US\$162/dmtu at 62%Fe) with adjustments for quality, deleterious elements, moisture and freight. Freight costs of approximately US\$22.50/t<sub>wet</sub> were used to determine FOB pricing from RoC to China (Qingdao).</p> <p>The June 2016 financial evaluation is based on reduced long term CFR iron ore price forecasts of US\$60/t<sub>dry</sub> at 62%Fe with adjustments for quality, deleterious elements, moisture and freight to support the Ore Reserve. Freight costs of US\$10.50/t<sub>wet</sub> have been used to determine FOB pricing from RoC to China (Qingdao). Allowances for Fe unit premiums, quality adjustments and moisture adjustments result in an average FOB selling price assumption of:</p> <ul style="list-style-type: none"><li>US\$54.20/tdry for concentrate from hematite; and</li><li>US\$56.80/tdry for concentrate from magnetite.</li></ul>												
Market assessment	<ul style="list-style-type: none"><li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li><li>A customer and competitor analysis along with the identification of likely market windows for the product.</li><li>Price and volume forecasts and the basis for these forecasts.</li><li>For industrial minerals the customer</li></ul>	<p>The products targeted by the Zanaga Iron Ore Project are two pellet feed products:</p> <ul style="list-style-type: none"><li>From Hematite: 66%Fe, 3%SiO<sub>2</sub>, 0.8%Al<sub>2</sub>O<sub>3</sub>, 0.04%P</li><li>From Magnetite: 68.5%Fe, 3.3%SiO<sub>2</sub> to 3.7%SiO<sub>2</sub>, 0.3%Al<sub>2</sub>O<sub>3</sub> to 0.4%Al<sub>2</sub>O<sub>3</sub>, &lt;0.01%P</li></ul> <p>No fundamental analysis of supply, demand and price and volume forecasts specific to the</p>												



Criteria	JORC Code explanation	Commentary
	specification, testing and acceptance requirements prior to a supply contract.	<p>Zanaga Iron Ore Project has been undertaken. The basis for the long term pricing assumption which supports the Ore Reserves has been sourced by The Company from consensus IODEX 62% Fe forecast (Standard Chartered, June 2016).</p> <p>Seaborne iron ore supply is dominated by Australia and Brazil, with South Africa, Canada the CIS and others making a smaller contribution to the total.</p> <p>The primary market competition will come from existing and expanding pellet feed supply in Brazil and new supply from Australia.</p> <p>A US\$60/t<sub>dry</sub> at 62%Fe CFR long term price (real terms) has been used in the financial evaluation to support the Ore Reserve. This long term price is based on the analysis of consensus IODEX price forecasts as at June 2016. Shipping rates of US\$10.50/t<sub>wet</sub> have been estimated from RoC to China to determine FOB pricing. Allowances for Fe unit premiums, quality adjustments and moisture adjustments result in an average FOB selling price assumption of:</p> <ul style="list-style-type: none"> <li>• US\$54.20/tdry for concentrate from hematite; and</li> <li>• US\$56.80/tdry for concentrate from magnetite.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></li> </ul>	<p>The financial modeling undertaken inclusive of only Measured and Indicated Classified Mineral Resources produces a positive NPV project at an appropriate discount rate.</p> <p>Based on the updated freight assumptions, the project requires a CFR IODEX 62% Fe Concentrate price of US\$51.00/t<sub>dry</sub> in order to provide a real terms internal rate of return of 10%.</p>
<b>Social</b>	<ul style="list-style-type: none"> <li>• <i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></li> </ul>	<p>The land acquisition, resettlement and the associated compensation process will led by the government. Land acquisition and resettlement for the areas occupied by the mine site and transport corridor have not been initiated. Delays to the land acquisition, compensation and resettlement processes could delay initiation of the construction phase. The project development schedule envisages resettlement of villages in the mine area in the first year of construction.</p> <p>Resettlement is a key issue for the project. At the mine site, 3,100 people are expected to be resettled (700 people for stage 1 and the remainder for stage 2). Resettlement planning has not commenced. As part of the process of preparing a resettlement action plan the resettlement agreement/ entitlement framework needs to be negotiated. It is not uncommon for it to take more than two years after the start of resettlement planning (i.e. after the announcement of the census cut-off date).</p>
<b>Other</b>	<p><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></p> <ul style="list-style-type: none"> <li>• <i>Any identified material naturally occurring risks.</i></li> <li>• <i>The status of material legal agreements and marketing arrangements.</i></li> <li>• <i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory</i></li> </ul>	<p>Applications for an environmental permit have been submitted to the Government. There is no information on how far through the permitting process the environmental permit application is. Delays in the issue of the environmental permit may impact the Project schedule.</p> <p>On 14th August 2014, a mining licence was awarded over a single permit area – Zanaga – covering 499.3 km<sup>2</sup>. This mining license replaces two exploration licences that had previously covered the same area (Zanaga-Bambama and Zanaga-Mandzoumou). The</p>



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	<p><i>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 third party on which extraction of the reserve is contingent.</i></p>	<p>mining licence has been granted for a duration of 25 years, with options to extend as per the Mining Code of Republic of Congo. The Zanaga deposit lies wholly within the licence boundary. SRK is not aware of any issues that would prevent renewing the mining licence to cover the full life of mine plan.</p> <p>The Project plans a two stage development to produce 30Mtpa of high grade iron ore concentrate plus the potential for up to 2Mtpa of DSO. The application for environmental permit pertains to the Stage 1 development only.</p> <p>There is an existing Mining Convention between MPD and the Government that applies in respect of exploration works within the exploration licences. A Mining Convention between MPD and Government that will regulate the operating conditions for all components of the project has been negotiated and was signed on the 14<sup>th</sup> August 2014. This Mining Convention was approved by the Supreme Court in March 2015, and by the Council of Ministers in October 2015, ratified by the Parliament of the Republic of the Congo ("RoC") in April 2016 and is expected to be published in the Official Gazette' of the RoC on in July 2016.</p>
<b>Classification</b>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> <li><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></li> </ul>	<p>There are Measured, Indicated, and Inferred Classified Mineral Resources within the block model.</p> <p><b>Hematite</b></p> <p>Only Measured and Indicated Classified Mineral Resources with the design pits have been converted to Proved and Probable (Measured to Proved, Indicated to Probable).</p> <p><b>Magnetite</b></p> <p>Only Measured and Indicated Classified Mineral Resources with the pit shells have been converted to Probable (Measured and Indicated to Probable).</p> <p>All of the Measured Mineral Resources attributable to the Stage 2 magnetite expansion have been downgraded to Probable Ore Reserves due to the reduced study level as compared with Stage 1.</p>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Ore Reserve estimates.</i></li> </ul>	<p>Ore Reserves of 2,500Mt at 34%Fe have been historically stated by CSA Global (December 2012) following the completion of a pre-feasibility study evaluating a 30 tpa production rate.</p>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>Documentation should include</i></li> </ul>	<p>The Mineral Resources which the Ore Reserves are based upon constitute 2,400Mt of Measured Resources at 34.0%Fe, 2,290Mt of Indicated Resources at 30.8%Fe and 2,100Mt of Inferred Resources at 31.0%Fe as authored by the Competent Person, Malcolm Titley, an employee of CSA Global ("CSA").</p> <p>Overall, SRK does not consider there to be material bias in the underlying data or grade estimate and modelling methodology employed by CSA that would affect the classification of the Mineral Resources. However the assignment of average densities to lithological units gives lower confidence to local tonnage estimates. In addition the bulk density sampling and determination methodology may result in a bias and is likely to overstate the tonnages.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>assumptions made and the procedures used.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>It is recognised that this may not 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.</i></li> </ul>	

## **Advisors**

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