Alexander Mining plc

Developing new technology for the recovery of essential energy and infrastructure metals for today's world

Alexander Mining plc
Annual Report & Accounts 2018

About Us

Alexander Mining is an AIM listed mining, minerals and metals processing technology company with a focus on development and innovation, strong technical management, and financial markets expertise and experience.

The Company's business objective is to become a successful company focused on the mining and processing of infrastructure commodities, energy related base metals and mineral compounds integral to the technologies and products of today and in the future.

This will be achieved from the commercialisation of its proprietary minerals and metals processing technologies, potential strategic partnerships and joint ventures in producing and/or past producing mines, via improved economics and through equity and/or royalty positions in advanced projects.

Highlights for the period

Significant progress with commercialisation efforts for copper, cobalt and zinc oxide projects in several target countries; including Turkey with Deep South Resources Inc. at the polymetallic Kapili Tepe property and with Proses Mühendislik, Danışmanlık, İnşaat ve Tasarım AS. for the establishment of a semi industrial scale processing plant for lower grade zinc oxide ores.

Continued granting of important patents for leaching of base metals oxides using AmmLeach® and sulphides using HyperLeach® in key mining jurisdictions.

Research and development HyperLeach® initiatives hold encouraging potential.

Continuing and increasingly broad mining industry interest in using AmmLeach® for base metals recovery from amenable deposits as the focus on limiting capital deployment and reduction in All in Sustaining Costs ("AISC") for mines remains a priority for the global mining industry.

Investigating a range of potentially complementary and value accretive corporate opportunities in the natural resources sector.

Contents

Chairman's Statement & Review of the Year

Dear Shareholders and Investors

Herewith I take pleasure on behalf of your Board of Directors in presenting for your consideration the Company's results for the year ended 31 December 2018, along with commentary on the operating environment and outlook.

The year under review continued to show sentiment variation in the global mining sector but with an increased and positive focus on key infrastructure commodities and energy metals. Albeit this was still tempered to some degree by ongoing risk around resource nationalism and increased royalty requirements in some countries. In general, the mining and natural resources investment market remained neutral.

The continuing volatile political environment in the USA, UK and Eurozone (Brexit), with fears that China's growth was catching a significant cold and slowing down, drove precious metals' prices for gold, silver and, notably, palladium higher. There was increasing demand for risk hedging against government and public debt levels, US dollar uncertainty and potential for its reserve status to be replaced by the IMF's SDR (Special Drawing Rights) instrument to mitigate general fiat currency failure and its pre-emptive replacement by an electronic monetary system.

The price of infrastructure and energy focused base metals, Alexander's main area of activity, and related metals mining development equities continued to rise. This was due to LME stocks depletion, robust and increasing supply demand, and continued significant but focused capital inflows. There has also been a reset due to the well-publicised failure of a significant number of crypto token offerings. With the crypto market losing 80% of its value, this has severely dampened the significant funding enthusiasm of the previous year and which diverted capital from the junior resources investment market. Accordingly, growing investment in exploration and development activity in the infrastructure commodities and energy storage or battery metals has continued during the year and underpinned further potential price rises.

The key operating environment features for the Company identified last year and listed below continued into the current reporting period and we expect these to continue impacting in the year ahead and beyond.

- Junior mining company valuations remain generally moribund, with the exception of those with diversified portfolios of precious metals and battery metals projects or good polymetallic deposits, which continue to trend upwards.
- Basic AISC improvements appear to have reached their zenith. However, the focus remains with capital investment in technologies in search of further productivity gains to sustain lowest cost quartile performance in the mining sector.
- Market consolidation of companies' positions in highly prospective brownfield mining districts through joint-ventures, mergers and acquisitions migrated upwards to the gold majors, notably in the Barrick-Randgold merger, followed by the Newmont-Goldcorp merger. But this trend is expected to continue at mid-cap and junior levels in the energy and base metals' market sector still in search of critical mass, lower G & A costs and optionality for investors.
- Exploration programmes continued to expand, with investment almost doubling globally in the reporting period. Project developments, old mines and tailings dumps are being more aggressively researched and restarted, in particular in the energy storage metals, i.e. cobalt, vanadium and hard rock lithium.

However, we must not lose sight of some additional globally impacting macro-economic, socio-political, socio-environmental and financial features that have also manifested themselves, as follows:

- One of the biggest headwinds last year was a combination between rising interest rates and the global trade war. Currently, 40 per cent. of the world's trade GDP is the US and China, so a trade war has been hugely unsettling for the demand in commodities.
- IMF's increasing rhetoric on demonetisation, avoidance of another global financial crisis via cancellation of the fiat currency system and the move towards fully electronic, internet and blockchain based "World Money" system, replacing the US$ dollar as the reserve unit and most likely based on the gold backed SDR available to sovereign and elite powers only and providing liquidity from thin air.
- The climate change movement, driven by political control motives and the global elites, has been elevated to become the convenient horse to ride and the perfect platform in the implementation of "World Taxation". Taken in isolation, climate change seems to have no link to world money or world tax, yet every statement by the IMF references climate change and the need to address it globally. This could be both massively positive and massively negative for the mining and minerals' sector, dependent upon which angle you see it. In April 2016, UN Project Adviser Andrew Sheng co-authored a published article "How to Finance Global Reflation" – the statement therein "Investment in global public goods – namely, the infrastructure needed to meet the needs of the developing world and to mitigate climate change – could spur global reflation. An estimated US$6 trillion in infrastructure investment will be needed annually over the next 15 years just to address global warming…".

While cognisant of the operating environment and macro environmental factors mentioned above, Alexander has maintained an unwavering focus on our core activity of seeking and/or acquiring commercialisation opportunities for our AmmLeach® and HyperLeach® technologies ("Leaching Technologies") to release the embedded value in your Company.

During the year, the Company continued to add granted patents in key mining jurisdictions to its portfolio of intellectual property, as well as continuing with its R&D activities under various agreements and, where appropriate, make additional patent applications.

A HyperLeach® patent, which describes a method for leaching one or more target metals from a sulphide ore and/or concentrate was granted in the important mining country of Canada, a cobalt-related patent in the cobalt rich country of Zambia and the overarching AmmLeach® patent in Chile, the world's dominant copper producing country.

Financial

The Company has continued to be assiduous in keeping its overheads to the minimum necessary, whilst maintaining required expenditure on business development and intellectual property protection.

The Company's cash position at 31 December 2018 was £441,000.

Based on the current budget the company should have adequate working capital through until the end of the current year. It is anticipated that further capital will need to be raised in that time or a corporate transaction carried out. A number of options and opportunities are being reviewed.

Chairman's Statement & Review of the Year

continued

Commercialisation activities

In June 2018, a technical consultancy, licence and royalty agreement with Canadian company Deep South Resources Inc. ("Deep South", DSM - TSXV) for the potential use of our Leaching Technologies was announced, to become effective on Deep South consummating its proposed acquisition of the two exploration licences and one mining licence that comprise the copper/nickel/cobalt polymetallic mineral properties at Imranli near Sivas in the Republic of Turkey, called "Kapili Tepe" ("KT").

Pleasingly, the KT acquisition was achieved post reporting period in May 2019 and we look forward to working together for mutual benefit.

In Australia, unfortunately, as reported on 29 August 2018, Accudo's plan to proceed with a detailed feasibility study on the potential use of our Leaching Technologies under the existing licence agreement at a specific copper project in Australia, and which was dependent upon it obtaining acquisition financing, has been aborted. However, Accudo remains motivated to seek other potentially suitable opportunities. We remain hopeful that, given falling LME copper inventories, lack of new production on the horizon, and strong demand from the EV, energy/battery storage sector and energy distribution infrastructure requirements, it may be successful.

Alexander continues to work with and support Duard Capital Ltd. for the potential introduction of commercial opportunities for its Leaching Technologies in Zambia and the Democratic Republic of the Congo ("DRC"). Both countries share the world renowned Copperbelt geology and are noted mining countries with significant copper and cobalt production growth potential. They are highly prospective for the use of Alexander's technology for the recovery of copper and cobalt.

In February 2018, Alexander announced a partnership agreement with Proses Mühendislik, Danışmanlık, İnşaat ve Tasarım AS. ("Proses"), a mineral processing specialist consultancy based in Turkey, covering Turkey, Iran and the rest of the Middle-East. Under the agreement, subject to securing the necessary funding, Proses proposes to design and construct a semi industrial scale processing plant ("SISP") using Alexander's technology in Turkey. In October 2018, it was announced that Proses had been investigating and progressing plans in Turkey for the establishment of a SISP using Alexander's AmmLeach® technology for processing lower grade zinc oxide ores. Accordingly, it had entered into a formal royalty agreement with Osmanlı Madencilik Ltd ("Osmanlı") of Turkey.

Under the agreement with Osmanlı and subject to environmental impact studies, permitting and Proses securing the necessary funding, the plan would extract zinc oxide ore from the licence area and process the ore in a SISP facility to be established on site. Proses will also proactively seek to receive or purchase zinc oxide ores from other miners in the region for treatment at this plant.

Alexander would receive a gross sales revenue royalty on the value of the SISP product produced using its technology. Subject to the results of the SISP, Alexander would negotiate with the project owners a technology licence agreement ("TLA"). The TLA should be on Alexander's standard commercial terms, including a gross sales revenue royalty on all commercial scale metal or high value-added processing plant product.

Separately, Alexander continues to investigate commercialisation opportunities for its Leaching Technologies to recover copper, cobalt, zinc and other energy metal compounds in various countries. As well as actively working on the commercialisation of our Leaching Technologies through the various agreements in place for brownfield and greenfield opportunities and projects, we continue to investigate a range of potentially complementary and value accretive corporate opportunities in the mining and minerals processing sector.

Whilst we have not yet been successful in advancing any opportunity to the stage for public disclosure, we remain active in evaluating several of interest as they have arisen from time to time and dependent on the main assessment criteria being 'shortest-path-to-value' for the Company and our shareholders.

Research and Development

Four research and development ("R & D") initiatives were progressed in 2018 as follows.

Lithium

This is a joint venture ("JV") with Alexander's Principal Technological Consultant, Dr. Nicholas Welham, an acknowledged expert in lithium and hydrometallurgy. The JV is designed to investigate the exciting potential to develop new lithium processing intellectual property in a sector of major interest. The JV is complementary to our existing cobalt recovery technology as cobalt is an essential component in lithium ion batteries.

With this new initiative, the Company is involved in innovative processing technology for four of the so-called "technology metals of the future" – copper, cobalt, vanadium and lithium. All of them have an essential use in energy storage units or batteries for either electric vehicle ("EV") or Grid power storage unit manufacture. There is evidence to suggest that Lithium-Ion batteries also have significant growth potential for use in the grid power electricity storage sector with first commercial contracts now under adoption in the USA.

Despite some delays beyond the Company's control, proof of concept work for a potential new hard rock lithium heap leaching process continued. In December 2018, it was announced that the preliminary stages of the work had shown promising results. Consequently, it was agreed that a further larger scale batch of test work was required.

The work was undertaken at a higher education establishment in Perth, Western Australia under Dr. Welham's supervision, with all materials being analysed at a local commercial laboratory.

The results from these runs announced post reporting period in April 2019 showed that leaching of lithium from all four minerals was achieved at ambient temperature and pressure. However, the rates of dissolution of the lithium were lower than required for the targeted heap leach. Of the minerals tested, only zinnwaldite appears to have any promise for heap leaching using the envisaged process. Although no further work is planned at this stage, the Company retains a keen interest in the lithium mining and processing sector given its importance to the revolution in electric vehicles and transportation currently well underway.

With growing evidence regarding the operational and economic difficulties with brine type lithium extraction methods, such as increased capital intensiveness, extended time to production, production volume variances from evaporation rates, the processing of lithium from hard rock resources has become a point of focus. Accordingly, the use of heap leaching as a possible processing method for the low-cost extraction of lithium remains of interest to Alexander and it will continue to seek opportunities to use its expertise in this area.

HyperLeach®

For HyperLeach®, two R&D investigations for its potential use were progressed. One for copper and the other for nickel-cobalt.

HyperLeach® - copper

HyperLeach® testwork on two low grade copper sulphide ore samples showed promising potential for the application of HyperLeach® to heap leaching and in-situ leaching. The HyperLeach® reagent has been found to rapidly oxidise chalcopyrite (the main copper sulphide mineral and source of the majority of the world's mined copper production) and bornite from low grade ore.

Unlike many proposed reagents for heap leach or in situ leaching, the initial HyperLeach® solution does not appear to react significantly with the common gangue (waste) minerals. The selectivity to sulphides is anticipated to reduce the reagent consumption compared to other acid-based systems. The acid generated during HyperLeach® has been shown to react with the gangue raising the pH and leading to precipitation of unwanted elements, such as iron and aluminium, simplifying the separation and recovery of the copper.

Chairman's Statement & Review of the Year

continued

MetaLeach® registered patent summary

Method	Country
AmmLeach® family patents	
Ammoniacal Leaching	Peru, Chile, South Africa, African Regional Intellectual Property Organization ("ARIPO"), Australia, Canada, Mexico, USA, Democratic Republic of the Congo, China
Extracting Zinc from Aqueous Ammoniacal Solutions	Mexico, USA
Leaching Cobalt from Oxidised Cobalt Ores	ARIPO, South Africa
Leaching of a Copper-containing Ore	Australia
Leaching Zinc from a Zinc Ore	Canada
Leaching Zinc Silicate Ores	Turkey
Recovering Cobalt from Cobalt-Containing Ores	Australia
Leaching of Copper and Molybdenum	Chile
HyperLeach® family patents	
Oxidative Leaching of Molybdenum - Rhenium Sulfide Ores and/or Concentrates	Australia, Chile , Mongolia,
Oxidative Leaching of Sulfide Ores and/or Concentrates	Germany, Poland, Turkey, Australia, Canada, European Patent Convention, Mongolia, USA

Note: ARIPO includes: Botswana, Namibia, Zambia and Zimbabwe.

The HyperLeach® process has significant advantages for high acid consuming ores compared to the conventional acid ferric process. In the conventional process there is a need to continually add acid in order to maintain the solubility of the ferric ions which oxidise the sulphide minerals. This can readily become uneconomic as the duration of heap or in situ leaching is measured in months or even years. The near neutral starting pH of HyperLeach® avoids the need to continually add acid to retain the oxidant in solution. The absence of HyperLeach® reactivity towards most gangue minerals reduces the extent of undesirable reactions between the acid and gangue minerals. The only reaction occurs when the HyperLeach® reagent is in contact with the sulphide minerals, forming a microenvironment ideal for leaching. The acid generated during the reaction can then react with the gangue resulting in the precipitation of many impurity metals within the system, leaving a largely purified solution containing the metal of interest.

The increasing use of renewable energy on mine sites is also a significant factor for HyperLeach® as the reagent can be regenerated electrochemically at high efficiency. As the unit cost of power decreases, the cost of using HyperLeach® will also decrease. Further testwork is aimed at examining the economics of the process. Alexander has been in contact with the major Australian company which provided the samples tested to form a potential partnership to fund development of a heap leach and/or in-situ HyperLeach® process for copper ores.

HyperLeach® - nickel and cobalt

Work on the leaching of fresh and weathered nickel and cobalt flotation tailings in order to produce high purity battery feedstocks continued in the reporting period. Preliminary work was undertaken in late 2018 to assess their amenability to HyperLeach®. Further work commenced in early 2019 to further optimise the process and understand the major factors involved in the leaching. Work on the separation and recovery of nickel and cobalt from the solution to produce high purity metal sulphate salts is expected to follow. Successful application of HyperLeach® to such materials opens up a significant new potential supply of both nickel and cobalt. In Western Australia, and elsewhere, there are a number of operating mines which produce a sulphide concentrate by flotation and a low grade tailings which could be a readily accessible feed for a HyperLeach® process. There is also potential application on ore that is presently too low grade to warrant crushing, grinding and flotation, in either vat or heap leaching scenarios.

A potential industry partner is being identified to aid progress in this application through a joint venture.

Vanadium

In September 2017, Alexander announced that it had agreed a significant new R&D JV project ("Project") to investigate the potential recovery of vanadium from amenable ores ("Vanadium Leaching Technology"). Applications for vanadium have expanded dramatically over the last year as it found a new industrial use and is the key component of large "flow-through" energy storage components known as Redox Batteries, which are already achieving commercial adoption for municipal size grid storage applications in the USA.

The Project is between Alexander, Australian company Multicom Resources Pty Ltd ("Multicom"), and John Webster Innovations Proprietary Limited. Although some work has been done, it is still at the preliminary stage with initial results and next steps being evaluated. If the JV is successful, the potential use of a new Vanadium Leaching Technology would initially be focused on Multicom's Saint Elmo vanadium project in North Queensland, Australia.

Shareholder voting process

To further reduce the environmental impact, we have removed paper from the voting process for meetings in favour of a quicker and more secure method of voting online via our registrars' website. You will however be able to request a paper proxy if you wish from our registrars at the appropriate time.

Outlook

At Alexander we remain unwavering in our belief, despite the testing operational and macro environment factors mentioned earlier, that the Company should begin to benefit from its technological and market positioning, in particular as existing commercial agreements gain traction over the coming year.

It remains our view that there is a clear investment trend in physical and tradeable commodities. Most particularly, this includes infrastructure and energy related commodities, e.g. copper and zinc, both of which are already in supply deficit according to the major market intelligence experts.

The demand for battery metals for the EV markets (nickel, cobalt and lithium) and grid storage markets (vanadium), with significant growth in targeted technology adoption rates could see major supply deficits. Hence, the key beneficiaries should be companies that hold such assets or the technologies to enhance them, like Alexander. This therefore continues to offer shareholders and potential investors strong fundamentals in the Alexander business and in the progressive project developments we are engaged in.

Your Board has remained focused in executing its clearly defined investment plans at all levels and we continue to leave no stone unturned through actively reviewing complementary opportunities of interest in the mining sector. And, we have continued to remain cautious with regards to the deployment of the Company's financial resources.

Finally, I would like to thank you, Alexander's valued shareholders, for your continuing support and our employees, directors, consultants and advisers for their commitment during difficult times past and for the bright future we still see ahead.

Alan M. Clegg
Non-Executive Chairman
31 May 2019

Review of Operations

Business Objective

Alexander's corporate objective is to become a successful company in the mining, metals and minerals sector focused on the mining and processing of the base metals which are integral components to the delivery of technologies and products for now and the future.

This will be achieved from the commercialisation of its proprietary minerals and metals processing technologies ("Leaching Technologies") and potential strategic partnerships in producing mines and through equity and/or royalty positions in advanced projects. If successful, the profitable commercialisation of its proprietary Leaching Technologies should result in long-term capital growth and revenue from licences and royalties. This is based on the potential for major operating and capital cost savings for suitable mines using Alexander's Leaching Technologies as the principal mineral processing method to produce base metals or high value product at the mine site. In addition, the Leaching Technologies may offer significant operating and environmental benefits. The base metals of most commercial importance are copper, zinc and cobalt.

Business Strategy

Alexander has adopted a flexible dual approach to the commercialisation of its technology. It has held discussions and signed confidentiality agreements with a significant and growing number of mining companies, metals traders and specialist investment institutions. In addition, it has been proactive in identifying mining properties, and their owners, with potential for the use of the Leaching Technologies. As a result, Alexander has built up a comprehensive database and also conducted amenability testwork on the many samples provided. Discussions have taken place and continue with interested parties, the purpose of which is to negotiate issuing to owners a licence to use the Leaching Technologies in exchange for royalties, cash fees and/or minority equity interests in projects.

Key Performance Indicators

At this stage in its development, Alexander is focused on the commercialisation of its Leaching Technologies. The control of bank and cash balances is a priority for the Company and these are budgeted and monitored regularly to ensure that the Company maintains adequate liquidity to meet its financial commitments as they arise. As and when it is successful in realising commercialisation of its Leaching Technologies production, detailed financial, operational, health and safety, and environmental key performance indicators will become more relevant and will be measured and reported upon as appropriate.

Principal Risks and Uncertainties

Business Risks

Alexander's main business risk is related to the possibility of it not being able to successfully commercialise its technology. Inherent risk diversification is offered geographically, by technology and by metal. When compared with conventional exploration-driven mining companies, the business risks differ markedly. The stages at which Alexander's technology is of interest to a potential user is from the project feasibility study stage, through to existing mining operations. As such, the inherent technical risks of the mining industry in discovering a potential new mine do not apply as a deposit has already been found.

The business risk, and accordingly development risk level, for Alexander is assessed as unchanged since last year. This is mainly because of current interest and activity in the Company's technology, and the prevailing conditions and outlook for the mining and metals sector.

Development risks

Alexander's strategy to commercialise its proprietary Leaching Technologies, either through third party licensing agreements or direct equity interests in amenable deposits, is subject to specific technical risks relating to the technologies and wider technical risks like final engineering, which are relevant to the mining industry as a whole.

There is a risk that Alexander will be unable to negotiate suitable licensing arrangements with third parties for the use of its proprietary Leaching Technologies. Alexander may also be unable to negotiate as an alternative the acquisition of equity interests in amenable deposits at commercially attractive prices, or finance the acquisition thereof. Third party aspects beyond the control of Alexander remains a risk.

Alexander's proprietary Leaching Technologies have not yet been applied on an industrial scale. The results of testwork performed to date, both in the laboratory and at pilot plant scale, although significant and positive may not be reproducible at an industrial scale in an economically efficient manner.

Alexander mitigates and manages the developmental risk for the commercialisation of the technologies by holding discussions with a wide range of companies representing a number of target projects and mines with a diversification of both metals and countries. In addition, it is likely to work with suitably experienced third parties, including independent metallurgical and process engineering experts in the partnering of its technologies with mineral deposits and/or mines.

Comparison of AmmLeach® with acid leaching of copper

Parameter	Acid	AmmLeach®
Mineralogy	Oxides, carbonates, silicates, some sulphides	Almost any – dependent upon pre-treatment stage
Selectivity	Low: iron, manganese, calcium and silica are likely problems	High: no iron, manganese, calcium or silica dissolution
Rate of extraction	Limited by acid strength and diffusion	Ammonia concentration in leach solution matched to leaching rate
Recovery	80% of leachable metal	>80% in ~130 days
Heap lifetime	~55-480 days	~80-130 days
Sulphate precipitation	Reduced permeability in heap, break down of clays and plant scaling due to precipitation of gypsum and jarosite	Calcium and iron solubilities too low for precipitation, also low sulphate levels in leach solution
Leachant consumption	Depends upon carbonate content but 30 to over 100kg/t reported for operating heaps	Depends on concentration used but range of 3-5kg/t measured at Alexander's former Leon copper project in Argentina; <1kg/t in second pilot run
Safety	Large volumes of concentrated acid required to be transported to site	On demand ammonia / carbon dioxide systems using hydrolysis of urea minimises risks. Anhydrous ammonia NOT required
Precious metals	Heap to be neutralised before cyanidation. Needs to be 100% effective to prevent cyanide release	Neutralisation not required, potential for simultaneous recovery using thiosulphate or sequential leaching using cyanide
Decommissioning	Heap requires washing, neutralisation and long term monitoring of acid mine drainage (AMD)	Heap can be washed and left, residual ammonia acts as fertiliser for vegetation regrowth, minimal likelihood of AMD

Review of Operations

continued

Principal Risks and Uncertainties (continued)

Loss of key personnel from Alexander

The commercialisation of Alexander's Leaching Technologies is dependent upon the continuing application of skills provided by highly qualified and experienced employees, directors and consultants. There is a risk that Alexander's management, employees, directors and consultants will be targeted by competitors. The loss of any such key personnel may adversely affect the ability of Alexander to achieve its objectives. Alexander mitigates this risk by ensuring that all key employees, directors and consultants are rewarded appropriately and participate in Alexander's share option scheme, further details of which are set out in note 17 to the Financial Statements.

Since the loss of the Company's former executive Chairman in 2017, this risk has increased given that the Chief Executive Officer is now the only full time executive with a technical background and relevant long standing experience employed by the Company. Notwithstanding, the board has two non-executive directors with significant MetaLeach technology and mining industry experience and expertise, and, in the case of the Chairman, technical qualifications.

Intellectual property risk

Alexander's success depends in part on its ability to obtain and maintain protection for its intellectual property, so that it can ensure that royalties or licence fees are payable for the use of its proprietary Leaching Technologies. Alexander has applied for patents covering its Leaching Technologies in most countries of commercial interest. Although some have been granted, there is a risk that other patents may not be granted and Alexander may not be able to exclude competitors from developing similar technologies.

However, Alexander actively manages its intellectual property rights portfolio, which includes significant proprietary knowhow in addition to the patent pending innovations. When dealing with potential clients, Alexander ensures that confidentiality agreements are signed acknowledging the full range of Alexander's intellectual property. In addition, contracts are in place with all relevant employees, consultants, contractors and advisers to ensure that all intellectual property rights arising in the course of their work on behalf of Alexander vest with Alexander, and that such intellectual property can only be used for the benefit of Alexander.

This risk is assessed as being unchanged from last year. The Company has continued to be successful in being granted patents and patent protection in those countries of interest and importance for its business development.

Financial risks are referred to in the Directors' Report under Risk Management on page 9.

Leaching Technologies.

MetaLeach®

MetaLeach Limited ("MetaLeach®") is Alexander's subsidiary for the ownership and commercialisation of its proprietary hydrometallurgical mineral processing technologies. These technologies have the potential to revolutionise the extraction processes for many base metal deposits, reducing costs, and/or improving recoveries, and hence enhancing operating margins at the mine site. Being capable of producing metal or high value product on-site greatly enhances the mine gate economics compared to conventional concentrators. In addition, in many cases the technologies will enable the treatment of base metals deposits which hitherto have not been possible to treat. The technologies are especially suitable for high-acid-consuming carbonate hosted ores.

MetaLeach® owns the intellectual property to two ambient temperature, ambient pressure hydrometallurgical technologies, namely AmmLeach® (patents granted and pending) and HyperLeach® (patents granted and pending). These technologies are environmentally friendly, cost effective processes for the extraction of base metals at ambient temperature and pressure from amenable ore deposits and concentrates allowing the production of high value products at the mine site (i.e. metal powder or sheets).

The AmmLeach® Process

Developed for the extraction of base metals, especially copper, zinc and cobalt from ore deposits and concentrates. The process utilises ammonia based chemistry to selectively extract metals from ores under ambient temperature and pressure conditions. The target ores will typically be high acid consuming making them uneconomic using conventional processes. AmmLeach® is a viable alternative to acid leach processes as it is far more selective for valuable metals whilst rejecting unwanted metals. This selectivity offers a considerable number of technical and economic benefits through simplification of the flow sheet.

AmmLeach® uses the same three major stages as acid processes - leaching, solvent extraction (SX) and electrowinning (EW). Leaching occurs in two steps, an ore specific pre-treatment which converts the metals into a soluble form and the main leaching step, which uses barren solution recycled from the SX stage. AmmLeach® requires no special purpose built equipment and it can directly replace acid leaching in an existing operation. It is suitable for both low grade heap leaching and higher grade tank leaching.

The AmmLeach® process has an extremely high selectivity for the target metal over iron, silica, aluminium and manganese, which are insoluble under AmmLeach® conditions. Calcium and magnesium solubilities are also significantly suppressed by the presence of carbonate.

Decommissioning of the heap is extremely simple as no neutralisation is necessary and the potential for acid mine drainage is virtually eliminated. After final leaching the heap is simply washed to recover ammonia and then left to vegetate, with the residual ammonia acting as a fertiliser. The alkaline residue allows immediate application of cyanide leaching of gold and silver in ores where there is an economic precious metal content after removal of high cyanide consuming metals such as copper.

Copper

Copper is the world's most important base metal by value and its price is a bellwether of world industrial production. Approximately 20% of global mined copper production is produced from oxide ores using leaching, solvent extraction and electrowinning (SX-EW) hydrometallurgy. Alexander believes that its proprietary leaching technology has the potential to increase significantly the share of global copper produced using hydrometallurgical processes. Hydrometallurgical recovery of copper is much more attractive to mine owners than the production of concentrates from sulphide ores as it results in the production of high value cathodes at the mine. When sold these realise almost 100% of the copper content, compared to concentrates where owners may receive as little as 60% of the copper value.

The capability of tailoring the rate of recovery is an important feature of the AmmLeach® process and allows the plant to operate more flexibly with the rate of leaching matched to the operating capacity of the solvent extraction plant.

A scoping study indicated that it is possible to convert an acid heap leach operation directly to an AmmLeach® with minimal capital expenditure.

Zinc

The vast majority (~95%) of world zinc metal production uses smelting to recover and refine zinc metal from zinc-containing feed material such as zinc concentrates or zinc oxides. Development of a new hydrometallurgical process route for zinc oxides has the potential to simplify zinc refining.

Alexander's wholly owned subsidiary MetaLeach® has developed a novel (patents granted and pending) process for the solvent extraction of zinc from ammoniacal solutions. Test work has shown that zinc can be very efficiently extracted using commercially available reagents and stripped with acid solutions, with better efficiency and greater selectivity than has previously been reported.

The general flow sheet for the zinc process is straightforward and consists of leaching, purification and recovery stages. The nature of the leach stage depends upon a number of factors, notably the grade of ore and leaching kinetics. High grade, fast leaching ore would be readily accommodated by an agitated tank leach, whilst low grade, slow leaching ores would be better suited to heap leaching. Depending upon the product desired, there may be no need for a solution purification stage, considerably simplifying the overall process flow sheet.

Review of Operations

continued

A wide range of different oxide zinc mineralogies can potentially be treated by AmmLeach®, including those with significant hemimorphite content which presently can only be treated using acid. In AmmLeach® solutions, the leaching can be extremely rapid provided the conditions are appropriately matched to the ore. The acid route requires ore containing >10% zinc to be economically viable. The co dissolution of silica and iron in the acid results in a very complex flow sheet, as typified by that used at the Skorpion mine in Namibia. The tailings from Skorpion are reportedly >4% zinc showing that acid leaching can be extremely inefficient.

Recent work on Electric Arc Furnace Dusts (EAFD) has proven extremely encouraging with zinc recoveries of >80% producing solutions of >40g/L zinc with low impurities. The market for zinc oxide is large and this can be produced directly from the leach solution.

Copper process economics

An analysis of the economics of the AmmLeach® process compared with conventional acid leaching for high acid consuming copper ores is dependent upon a multitude of parameters specific to the mineralogy of the deposit and its location. Suffice it to say that the capital and operating cost savings can be major, particularly for high acid consuming ore bodies located in remote locations with long transport distances. This is because the safe supply of sulphuric acid is logistically difficult and expensive as the transport costs of bulk chemicals in-country to site can be as much again as, or more than, the free-on-board cost.

In many instances, economics will dictate that the mine will have to build an expensive sulphur burning sulphuric acid plant for the supply of acid. In addition, to regulate supply variations and for acid plant maintenance, acid storage tanks for around one month's consumption, whether the mine makes its own or buys in acid, will be required, significantly adding to the capital cost. As well as a substantial capital cost saving, this is where AmmLeach® has a major operating cost advantage too, due to an order of magnitude reduction in reagent consumption per tonne of ore processed.

The AmmLeach® process can achieve much higher copper solution concentrations in the pregnant leach solution (PLS) than are typically seen in acid plants. Typical copper concentrations for an acid leaching operation are of the order of 1-2g copper (Cu)/L compared to PLS concentrations for the AmmLeach® process of 6-12g Cu/L. This, coupled to the much greater copper transfer in solvent extraction, allows the efficient handling of high copper tenors in PLS (in acid plants this would necessitate larger volume mixer-settlers due to the higher volume of PLS and lower transfer between aqueous and organic phases); i.e. more metal produced per unit size of plant than in a corresponding acid leach-SX-EW plant.

Moreover, in ores where cobalt is a valuable by/co-product (e.g. DRC and Zambia), AmmLeach® offers additional significant capital and operating cost savings.

The leach itself is highly selective for copper and cobalt since not all metals are soluble in ammoniacal solutions. In this respect there is negligible iron, silica, calcium, aluminium and manganese present in the liquor. A number of possibilities exist for recovery of cobalt from the ammoniacal solution.

Commercialisation of AmmLeach®

The following metal ores are particular targets for the commercialisation of the AmmLeach® process:

- Copper and copper/cobalt oxide deposits
- Zinc oxide deposits
- Copper-gold and zinc-silver ores (AmmLeach® followed by cyanide leaching)

Geographic diversification is offered as the countries with the most prospective geology for hosting high acid consuming copper (Cu), cobalt (Co) and zinc (Zn) oxides are Chile (Cu), Peru (Cu & Zn), Mexico (Cu & Zn), Central America (Zn), USA (Cu & Zn), Democratic Republic of the Congo (Cu, Cu/Co), Zambia (Cu, Co & Zn), Turkey (Zn, Cu) and Australia (Cu, Co & Zn).

Of these, the copper process has already been demonstrated at pilot plant scale for heap leaching and at bench scale for agitated leaching. The cobalt (or copper and cobalt oxide ore) process has been small pilot scale tested successfully for agitated leaching and at bench scale for heap leaching.

Further development of the zinc process has led to a new solvent extraction process for zinc from ammoniacal solutions, for which several patents have been granted and further patents are pending. This patent application is for the recovery of zinc from ores which do not require pre-treatment before ammoniacal leaching. A patent covering a process allowing selective leaching of zinc from sideritic zinc ores has also been granted.

Because of the tailored pre-treatment step, almost any ore type is amenable to the AmmLeach® process. Thus far, it has been demonstrated on predominantly oxide ores but many sulphide ores have also been shown to leach after appropriate pre-treatment. This advance allows the treatment of mixed oxide-sulphide ores which are often present in the transition from weathered to un-weathered ore. As a project proceeds, the AmmLeach® process can be modified to cope with the changing mineralogy from oxide to sulphide without substantial capital expenditure.

Polymetallic ores can also be processed by AmmLeach® with separation achieved using solvent extraction to separate metals and produce multiple revenue streams. The minimisation of ammonia transfer allows these metals to be recovered directly from their strip solution by precipitation, crystallisation or electro-winning.

The alkaline conditions used in the AmmLeach® process allow precious metals to be recovered from the base metal depleted heap using a secondary leach step. The heap can simply be washed to recover ammonia and subjected to standard alkaline cyanidation to recover gold and silver. The incorporation of precious metals recovery within the AmmLeach® process is being investigated and preliminary work on the leaching of cyanide consuming metals prior to precious metal leaching with cyanide looks highly promising.

HyperLeach® process

The HyperLeach® process (patents granted and pending), although less advanced, has significant potential. HyperLeach® may be suitable for the extraction of metals, especially copper, zinc, nickel, cobalt, molybdenum and rhenium from sulphide ore deposits and concentrates. The process utilises chlorine based chemistry to solubilise metals from ores under ambient temperature and pressure conditions. The HyperLeach® process can be operated as either heap leach or tank leach.

Great promise has been shown for molybdenum–rhenium sulphide ores with low reagent consumption which could make heap leaching of such ores economically feasible for the first time.

Low grade nickel sulphide ores have also shown great promise with high metal recoveries being achieved during agitated leaches. Preliminary work has indicated that heap leaching may be possible for some ores. This allows the treatment of ores which are too low grade to process via the conventional, grind, float and smelt route.

Work in an independent laboratory has resulted in further scale-up data on the leaching of copper sulphide concentrates to produce copper metal at the mine site. These results have shown that it is possible to leach the majority of copper from chalcopyrite concentrates whilst leaving a residue which is saleable as a smelter feed.

HyperLeach® can be used as a pre-treatment for AmmLeach® to provide the best of both processes. HyperLeach® solubilises and mobilises target metals from sulphides with AmmLeach® leaching the target metals selectively. This combination would allow processing of a whole ore body from the oxide cap through the transition zone to the sulphide basement in a single plant with only small changes during the lifetime of the orebody.

The Strategic Report, as set out on pages 1 to 6 has been approved by the Board.

On behalf of the Board

J A Getty
Company Secretary
31 May 2019

Corporate Governance and Social Responsibility

Corporate Governance

The Directors recognise the importance of good corporate governance and have chosen to apply the Quoted Companies Alliance Corporate Governance Code (the "QCA Code"). For further information on how Alexander Mining applies the QCA code please see - www.alexandermining.com/corporate/corporate-governance

The Board has established appropriately constituted Audit and Remuneration Committees with formally delegated responsibilities.

The Board of Directors

The Board of Directors currently comprises three members, including one executive director and two non-executive directors. The Board has a wealth of both corporate finance and mining experience, from exploration, development and through to production. The structure of the Board ensures that no one individual or group dominates the decision making process. Board meetings are held regularly, a minimum of quarterly and as required, to provide effective leadership and overall management of the Group's affairs through the schedule of matters reserved for Board decisions. This includes the approval of the budget and business plan, major capital expenditure, acquisitions and disposals, risk management policies and the approval of financial statements. All directors have access to the advice and services of the Company's solicitors and the Company Secretary, who is responsible for ensuring that all Board procedures are followed. Any director may take independent professional advice at the Company's expense in the furtherance of their duties.

The Audit Committee

The Audit Committee, which meets not less than twice a year, considers the Group's financial reporting (including accounting policies) and internal financial controls. The Audit Committee, which comprises Mr J Bunyan (Chairman) and Mr A Clegg, receives reports from management and the external auditor to enable it to fulfil its responsibility for ensuring that the financial performance of the Group is properly monitored and reported on. In addition, it keeps under review the scope, cost and results of the external audit, and the independence and objectivity of the external auditor.

The Remuneration Committee

The Remuneration Committee, which meets when necessary, is responsible for making recommendations to the Board of directors' and senior executives' remuneration. The Committee comprises Mr A Clegg (Chairman) and Mr J Bunyan. Non-executive directors' remuneration and conditions are considered and agreed by the Board.

The financial package for the executive director is established by reference to those prevailing in the employment market for executives of equivalent status both in terms of level of responsibility of the position and their achievement of recognised job qualifications and skills. The Committee will also have regard to the terms which may be required to attract the equivalent experienced executive to join the Board from another company.

Internal Controls

The directors acknowledge their responsibility for the Group's systems of internal controls and for reviewing their effectiveness. These internal controls are designed to safeguard the assets of the Group and to ensure the reliability of financial information for both internal use and external publication. Whilst the directors acknowledge that no internal control system can provide absolute assurance against material misstatement or loss, they have reviewed the controls that are in place and are taking the appropriate action to ensure that the systems continue to develop in accordance with the growth of the Group.

Relations with Shareholders

The Board attaches great importance to maintaining good relations with its shareholders. Extensive information about the Group's activities is included in the Annual Report and Accounts and Interim Reports, which are sent to all shareholders. Market sensitive information is regularly released to all shareholders concurrently in accordance with stock exchange rules. The Annual General Meeting provides an opportunity for all shareholders to communicate with and to question the Board on any aspect of the Group's activities. The Company maintains a corporate website where information on the Group is regularly updated and all announcements are posted as they are released. The Company welcomes communication from both its private and institutional shareholders.

MAR Dealing Code and Policy Document

The Company has adopted ICSA Market Abuse Regulation (MAR) Dealing code and policy document and will take proper steps to ensure compliance by the directors, employees and insiders.

The Group's core values are:

- To be a good corporate citizen, demonstrating integrity in each business and community in which we operate
- To be open and honest in all our dealings, while respecting commercial and personal confidentiality
- To be objective, consistent and fair with all our stakeholders
- To respect the dignity and wellbeing of all our stakeholders and all those with whom we are involved
- To operate professionally in a performance-orientated culture and be committed to continuous improvement

Our Stakeholders

We are committed to developing mutually beneficial partnerships with our stakeholders throughout the life cycle of our activities and operations.

Our principal stakeholders include our shareholders; employees, their families, and employee representatives; the communities in which we operate; our business partners and local and national governments.

Environmental Policy

The Group is aware of the potential impact that its operations may have on the environment. It will ensure that all of its activities and operations have the minimum environmental impact possible.

The Group intends to meet or exceed international standards of excellence with regard to environmental matters. Our operations and activities will be in compliance with applicable laws and regulations. We will adopt and adhere to standards that are protective of both human health and the environment. For our operations we will develop and implement closure and reclamation plans that provide for long-term environmental stability and suitable post-mining beneficial land-uses at all relevant sites.

Each employee (including contractors) will be held accountable for ensuring that those employees, equipment, facilities and resources within their area of responsibility are managed to comply with this policy and to minimise environmental risk.

Ethical Policy

The Group is committed to comply with all laws, regulations, standards and international conventions which apply to our businesses and to our relationships with our stakeholders. Where laws and regulations are non-existent or inadequate, we will maintain the highest reasonable standards appropriate. We will in an accurate, timely and verifiable manner, consistently disclose material information about the Group and its performance. This will be readily understandable by appropriate regulators, our stakeholders and the public.

The Group complies and will continue to comply to the fullest extent with current and future anti-bribery legislation.

We will endeavour to ensure that no employee acts in a manner that would in any way contravene these principles. The Group will take the appropriate disciplinary action concerning any contravention.

Community Policy

The Group's aim is to have a positive impact on the people, cultures and communities in which it operates. It will be respectful of local and indigenous people, their values, traditions, culture and the environment. The Group will also strive to ensure that surrounding communities are informed of, and where possible, involved in, developments which affect them, throughout the life cycle of our operations. It will undertake social investment initiatives in the areas of need where we can make a practical and meaningful contribution.

Labour Policy

The Group is committed to upholding fundamental human rights and, accordingly, we seek to ensure the implementation of fair employment practices. The Group will also commit to creating workplaces free of harassment and unfair discrimination.

Health and Safety Policy

The Group is committed to complying with all relevant occupational health and safety laws, regulations and standards. In the absence thereof, standards reflecting best practice will be adopted.

Directors

Alan Clegg

Non-executive Chairman

Alan Clegg is a mining engineer with British and South African citizenship and is a resident of the Republic of South Africa. He has 45 years' experience gained from working in mining and minerals projects in more than 160 countries. This has been as team leader or a member of teams that have completed feasibility studies and/or constructed over sixty mining and mineral projects with a combined value in excess of US$8bn over the last twenty years. He was a founder, Executive Director and Chief Consulting Engineer of the Mining Engineering Consulting group within the TWP Holdings Ltd Consulting engineering consultancy practice, a major provider of engineering design, procurement, construction management and asset services largely within the mining sector. The TWP Holdings group was acquired in 2014 and is now part of the Worley Parsons Group, one of the leading global providers of technical, project and operational support services to the mining and energy sectors.

He is a registered Professional Mining Engineer (Pr.Eng), a registered Professional Construction Project Manager (Pr.CPM) and a registered Project Management Professional (PMP). He has professional Fellowship status with the South African Institute of Mining & Metallurgy (FSAIMM), the Institute of Quarrying (FIOQ), as well as professional memberships of most of the major mining institutes globally, and is a Fellow of the Institute of Directors (RSA & UK) and Member of the Institutes of Directors of Canada and Mauritius. He is a recognised mining technical assessment, reporting and mining project valuation expert, with key experience in stock exchange listings and the requirements for successful capital raising and sits on the boards of several international and multinational mining, engineering, mining equipment and construction sector companies. For 5 years until October 2018 he was key technical advisor and Non-Executive Board Member representing the interests of the Kazakhstan Sovereign wealth fund in its Mining investments.

Martin Rosser

Chief Executive Officer

Martin Rosser is a chartered mining engineer and FIMMM who has more than 37 years' practical industry and financial markets experience since graduating with a degree in mining engineering from the Camborne School of Mines in 1981. Initially, he spent five years working as a mining engineer in Australia, both on underground and surface gold mines, including time with Western Mining Corporation at Central Norseman. In 1987, he returned to the UK and worked as a mining analyst with two City stockbrokers.

He then joined the natural resources industry specialist firm of David Williamson Associates Limited in 1989 as a founder employee, and subsequently Managing Director. During this time, until joining Alexander in June 2005, he provided extensive corporate finance advisory and arranger services to the firm's worldwide natural resources industry clients.

From 2002, until its takeover by Lonmin plc in January 2007, he was a non-executive director of TSX listed AfriOre Limited.

James Bunyan

Non-Executive Deputy Chairman & Director

James Bunyan, who joined the board in April 2005, holds an MBA from Warwick University and a BSc in Biochemistry from Heriot-Watt. He specialises in corporate development with international business development across a broad range of industrial and commercial sectors worldwide.

He has proven business skills in strategic business planning, mergers, acquisitions, disposals, turnarounds and fundraising, with particular experience in mining. He was a director for five years of Tiberon Minerals Ltd, which developed the Nui Phao deposit in Vietnam from an exploration concept to one of the largest tungsten polymetallic deposits in the world. Nui Phao, together with a bankable feasibility study, was sold to Dragon Capital for over US$350million. It is now a successful operating mine.

Directors' Report

The directors present their report and the audited consolidated financial statements for the year ended 31 December 2018.

Principal activities

The principal activity of the Group is to become a successful company in the mining sector focused on the mining and processing of the technology metals of the future. This will be achieved from the commercialisation of the Group's proprietary mineral processing technologies and the potential strategic partnerships in producing mines and equity positions in advanced projects.

Results

The Group made a consolidated net loss for the year of £513,000 (2017: £429,571). The directors do not recommend the payment of a dividend (2017: nil).

Research and development

The Group, through its wholly owned subsidiary MetaLeach Limited is involved in the ongoing research and development of its proprietary mineral processing technologies, AmmLeach® and HyperLeach®. Further details thereof are set out in the Strategic Report on pages 1 to 6.

Financial Risk Management

The successful commercialisation of the Group's proprietary mineral processing technologies is subject to a number of risks, both in relation to third party licensing opportunities and the acquisition of equity interests in amenable deposits for the Group. In addition, like all businesses, the Group is exposed to financial risks. The Board adopts a prudent approach to minimise these risks as far as practicable, consistent with the corporate objectives of the Group. These risks are summarised below, together with the disclosures set out in note 15 to the Financial Statements.

Currency exchange risk

The Group reports its financial results in Sterling, while a proportion of the Group's costs are incurred in US Dollars, Australian Dollars, and New Zealand Dollars. Accordingly, movements in the Sterling exchange rate with these currencies could have a detrimental effect on the Group's results or financial position.

Liquidity risk

The Group has to date relied upon shareholder funding of its activities. Development of mineral properties, the acquisition of new opportunities, or the recovery of royalty/licensing income from third party assets, may be dependent upon the Group's ability to obtain further financing through joint ventures, equity or debt financing or other means. Although the Group has been successful in the past in obtaining equity financing, there can be no assurance that the Group will be able to obtain adequate financing in the future or that the terms of such financing will be favourable.

Credit risk

The Group has no material credit risk at the date of this report.

Commodity price risk

The Group's proprietary leaching technologies have the potential to reduce costs and enhance margins at the mine site. The level of interest from mining companies in commercialisation of the Group's proprietary leaching technologies may be affected, for better or worse, by future movements in global metal prices.

Strategic and business risks are described in the Strategic Report on pages 1 to 6.

Further details of these risks and how they are managed can be found in note 15.

Going concern

At 31 December 2018 the Company's cash position was £441,000. The cash flow forecast prepared by the directors which excludes deferred salaries in relation to the former chairman indicates that the Company will need to raise additional funding by the end of 2019 in order to meet the Group's operating expenses for the 12-month period from the date of signing these financial statements. The directors are assessing several corporate transactions and believe, having taken advice from their broker, that they should be able to raise additional equity financing to enable the Group to continue as a going concern.

On this basis, the directors have concluded that it is appropriate to draw up the financial statements on the going concern basis. However, there can be no certainty that the funding required will be secured in the necessary timescale. These conditions indicate the existence of a material uncertainty that may cast significant doubt on the ability of the Company and the Group to continue as a going concern and therefore, that it may be unable to realise its assets and discharge its liabilities in the normal course of business. The financial statements do not include the adjustments that would result if the Company and Group were unable to continue as a going concern.

Directors

The directors of the Company who held office during the year and their beneficial interests in the shares of the Company at the year-end were as follows:

	Shares held at 31 December 2018 Number	Shares held at 31 December 2017 Number
M L Rosser - Chief Executive Officer	**925,000**	925,000
J S Bunyan - Non-Executive Deputy Chairman	**-**	-
A M Clegg - Non-Executive Chairman	**-**	-
Total	**925,000**	925,000

In accordance with the Company's Articles of Association, Mr A M Clegg will retire by rotation at the Annual General Meeting. Being eligible, Mr A M Clegg offers himself for re-election. Other than their service contracts, no director of the Holding Company has a material interest in a contract with the Company. Details of directors' remuneration are set out in note 6 to the financial statements.

During the year, directors' and officers' liability insurance was maintained for directors and other officers of the Group as permitted by the Companies Act 2006.

Indemnity granted to Directors and officers by Company's Articles of Association

Subject to the provisions of Companies Act 1985 (also applicable under Companies Act 2006) but without prejudice to any indemnity to which a director may otherwise be entitled, every director or other officer of the Company (other than any person (whether or not an officer of the Company) engaged by the Company as auditor) shall be indemnified out of the assets of the Company against any liability incurred by him for negligence, default, breach of duty or breach of trust in relation to the affairs of the Company, provided that this Article shall be deemed not to provide for, or entitle any such person to, indemnification to the extent that it would cause this Article, or any element of it, to be treated as void under Companies Act 2006.

Directors' Report

continued

The directors' interests in share options are as follows:
Executive directors hold options to subscribe for ordinary shares in the Company as follows:

		At 31 December 2018	At 31 December 2017
Price	Exercise period	M L Rosser	M L Rosser
4.92p	01/06/13 - 22/12/20	2,700,000	2,700,000
0.22p	29/07/17 - 1/3, 29/07/18 - 2/3, 29/07/18 - 3/3, 28/07/26	13,000,000	13,000,000
0.15p	23/05/18 - 28/07/26	24,000,000	-
Total		39,700,000	15,700,000

Non-executive directors hold options to subscribe for ordinary shares in the Company as follows:

		At 31 December 2018		At 31 December 2017	
Price	Exercise period	J S Bunyan	A M Clegg	J S Bunyan	A M Clegg
4.92p	01/06/13 - 22/12/20	800,000	800,000	800,000	800,000
0.22p	29/07/17 - 1/3, 29/07/18 - 2/3, 29/07/18 - 3/3, 28/07/26	6,500,000	6,500,000	6,500,000	6,500,000
0.15p	23/05/18 - 28/07/26	20,000,000	24,000,000	-	-
Total		27,300,000	31,300,000	7,300,000	7,300,000

	At 31 December 2018	At 31 December 2017
	All directors	All directors
Total - all directors	98,300,000	30,300,000

Details of the Company's substantial shareholders are set out on the Company's website at www.alexandermining.com.

Share capital and share options
Details of the share capital of the Company at 31 December 2018 are set out in note 13 to the financial statements. Details of the share options outstanding at 31 December 2018 are set out in note 17 to the financial statements.

Post Balance Sheet Events
Details of post balance sheet events are set out in note 21 to the financial statements.

Stock Exchange
The Company's shares are quoted on the AIM market of the London Stock Exchange (symbol AXM).

Annual General Meeting
The Notice convening the Company's Annual General Meeting, to be held on 28 June 2019, is set out in pages 31 to 32 of this report. Full details of resolutions proposed at that meeting may be found in the Notice.

Provision of information to auditor
In the case of each of the directors who are directors of the Company at the date when this report is approved:
- So far as they are individually aware, there is no relevant audit information of which the Company's auditor is unaware; and
- Each of the directors has taken all the steps that they ought to have taken as a director to make themselves aware of any relevant audit information and to establish that the Company's auditor is aware of the information.

Auditor
A resolution to re-appoint BDO LLP as auditor of the Company will be put to the Annual General Meeting.

Statement of directors' responsibilities
The directors are responsible for preparing the strategic report, the directors' report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the Group and Company financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union. Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the profit or loss of the Group for that period. The directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies trading securities on the Alternative Investment Market.
In preparing these financial statements, the directors are required to:
- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether they have been prepared in accordance with IFRSs as adopted by the European Union, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the requirements of the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Website publication
The directors are responsible for ensuring the annual report and the financial statements are made available on a website. Financial statements are published on the Company's website in accordance with legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions.
The maintenance and integrity of the Company's website is the responsibility of the directors. The directors' responsibility also extends to the ongoing integrity of the financial statements contained therein.

By Order of the Board

John Getty
Company Secretary
31 May 2019

Independent auditor's report

to the members of Alexander Mining plc

Opinion

We have audited the financial statements of Alexander Mining Plc (the 'parent company') and its subsidiaries (the 'group') for the year ended 31 December 2018 which comprise the consolidated income statement, the consolidated statement of comprehensive income, the consolidated balance sheet, the company balance sheet, the consolidated and company statement of cash flows and the consolidated and company statement of changes in equity and notes to the financial statements, including a summary of significant accounting policies.

The financial reporting framework that has been applied in the preparation of the financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as regards to the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

In our opinion:

- the financial statements give a true and fair view of the state of the group's and of the parent company's affairs as at 31 December 2018 and of the group's loss for the year then ended;
- the group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the parent company financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

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.

Material uncertainty related to going concern

We draw attention to Note 2(a) to the financial statements concerning the group and company's ability to continue as a going concern. The matters explained indicate that the group and company will require additional funding by 31 December 2019 and that there is no certainty the funding required will be secured in the necessary timescale. These conditions, along with the other matters set out in Note 2(a) indicate the existence of a material uncertainty which may cast significant doubt over the group and company's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

We identified going concern as a key audit matter based on our assessment of the significance of the risk and the effect on our audit strategy.

Our audit procedures in response to this key audit matter included:

- A review of the directors' assessment of going concern including detailed review of cash flow projections and assessment of assumptions included therein for consistency and reasonableness.
- Assessing the reasonableness of forecast expenditure by reference to Management's planned activities.
- Discussions with Management in respect of negotiations relating to funding and corporate opportunities.
- Reviewing the documentation relating to ongoing activities in respect of financing options.
- Considering whether the material uncertainties have been properly identified and disclosed in financial statements.

Key audit matters

Key audit matters are those matters that, in our professional judgment, 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) we identified, including 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.

Other than the material uncertainty related to going concern as detailed above, no other key audit matters have been identified.

Our application of materiality

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements. We consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements. Importantly, misstatements below these levels will not necessarily be evaluated as immaterial as we also take into account the nature of identified misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements as a whole.

Group materiality FY2018	Group materiality FY2017	Basis for materiality
£24,800	£28,000	5% (7.5% in 2017) of loss before tax

Parent Company materiality FY2018	Parent Company materiality FY2017	Basis for materiality
£18,600	£21,000	5% (7.5% in 2017) of loss before tax capped at 75% of group materiality

We consider loss before tax to be the most significant determinant of the group's financial performance on the basis that the Group has no revenue and no significant asset base.

Performance materiality is the application of materiality at the individual account or balance level set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality for the financial statements as a whole. Performance materiality was set at £18,600 (2017: 21,000) for the group, representing 75% of materiality.

Whilst materiality for the financial statements as a whole was £24,800, each significant component of the group was audited to a lower level of component materiality ranging from £7,740 to £18,600.

We agreed with the Audit Committee that we would report to them all individual audit differences identified during the course of our audit in excess of £1,240 (2017: £1,400), set at 5% (2017: 5%) of the above materiality level. We also agreed to report differences below these thresholds that, in our view, warranted reporting on qualitative grounds.

Independent auditor's report

to the members of Alexander Mining plc

continued

An overview of the scope of our audit

Our group audit was scoped by obtaining an understanding of the group and its environment, including the group's system of internal control, and assessing the risks of material misstatement in the financial statements at the group level.

The Group is managed and operated from its base in London. The group audit team performed a full scope audit on all significant components in the group, being Alexander Mining Plc (parent company) and MetaLeach Limited (wholly owned subsidiary), along with the consolidation. The other two subsidiaries in the group were dormant.

Other information

The directors are responsible for the other information. The other information comprises the information included in the Annual Report and Accounts, other than the financial statements and our auditor's report thereon. 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. We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the group and the parent company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of directors

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's 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. The directors have voluntarily agreed to prepare a remuneration report in accordance with the provisions of the Companies Act that would have applied if the company had been fully listed, and have asked us to report on this.

Auditor's responsibilities for the audit of the financial statements

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. This description forms part of our auditor's report.

Use of our report

This report is made solely to the parent company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the parent 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 law, we do not accept or assume responsibility to anyone other than the parent company and the parent company's members as a body, for our audit work, for this report, or for the opinions we have formed.

BDO LLP

Stuart Barnsdall (Senior Statutory Auditor)
For and on behalf of BDO LLP, Statutory Auditor
London, UK
31 May 2019

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

Consolidated income statement

For the year ended 31 December 2018

	notes	2018 £'000	2017 £'000
Continuing operations			
Revenue	4	**-**	-
Gross profit		**-**	-
Administrative expenses		**(374)**	(329)
Research and development expenses		**(140)**	(101)
Operating loss	4	**(514)**	(430)
Finance income	7	**1**	-
Finance cost		**-**	-
Loss before taxation		**(513)**	(430)
Income tax expense	8	**-**	-
Loss for the year from continuing operations		**(513)**	(430)
Loss for the year		**(513)**	(430)
Basic and diluted loss per share (pence):			
from continuing operations	9	**(0.03)p**	(0.03)p

All components of profit or loss for the year are attributable to equity holders of the parent.

Consolidated statement of comprehensive income

For the year ended 31 December 2018

	2018 £'000	2017 £'000
Loss for the year	**(513)**	(430)
Other comprehensive income	**-**	-
Total comprehensive loss for the year attributable to equity holders of the parent	**(513)**	(430)

Consolidated balance sheet

As at 31 December 2018

	notes	2018 £'000	2017 £'000
Assets			
Trade and other receivables	11	**33**	37
Cash and cash equivalents	12	**441**	995
Total current assets		**474**	1,032
Total assets		**474**	1,032
Equity attributable to owners of the parent			
Issued share capital	13	**15,352**	15,352
Share premium	13	**14,044**	14,044
Accumulated losses		**(29,323)**	(28,866)
Total equity		**73**	530
Liabilities			
Current liabilities			
Trade and other payables	14	**401**	502
Total current liabilities		**401**	502
Total liabilities		**401**	502
Total equity and liabilities		**474**	1,032

These financial statements were approved by the Board of Directors and authorised for issue on 31 May 2019 and were signed on their behalf by:

M L Rosser
Director

Company balance sheet

Company number 5357433 in England and Wales

As at 31 December 2018

	notes	2018 £'000	2017 £'000
Assets			
Trade and other receivables	11	**32**	37
Cash and cash equivalents	12	**441**	995
Total current assets		**473**	1,032
Total assets		**473**	1,032
Equity attributable to owners of the parent			
Issued share capital	13	**15,352**	15,352
Share premium	13	**14,044**	14,044
Accumulated losses		**(29,023)**	(28,527)
Total equity		**373**	869
Liabilities			
Current Liabilities			
Trade and other payables	14	**100**	163
Total current liabilities		**100**	163
Total liabilities		**100**	163
Total equity and liabilities		**473**	1,032

A separate income statement for the parent company has not been presented, as permitted by section 408 of the Companies Act 2006. The Company's loss for the year was £551,609 (2017: £475,246).

These financial statements were approved by the Board of Directors and authorised for issue on 31 May 2019 and were signed on their behalf by:

Martin Rosser

M L Rosser
Director

Statements of cash flows

For the year ended 31 December 2018

	notes	Group 2018 £'000	Group 2017 £'000	Company 2018 £'000	Company 2017 £'000
Cash flows from operating activities					
Operating loss – continuing operations		**(514)**	(430)	**(553)**	(475)
Decrease/ (Increase) in trade and other receivables		**4**	2	**5**	2
(Decrease)/ Increase in trade and other payables		**(101)**	(121)	**(63)**	(76)
Increase in provisions		**-**	-	**194**	140
Share option & warrant charge		**56**	21	**56**	21
Inter-company recharges		**-**	-	**(10)**	(10)
Net cash outflow from operating activities		**(555)**	(528)	**(371)**	(398)
Cash flows from investing activities					
Amounts remitted to subsidiary companies	20	**-**	-	**(184)**	(130)
Interest received		**1**	-	**1**	-
Net cash inflow/ (outflow) from investing activities		**1**	-	**(183)**	(130)
Cash flows from financing activities					
Proceeds from the issue of share capital, net of issue costs	13	**-**	1,264	**-**	1,264
Net cash inflow from financing activities		**-**	1,264	**-**	1,264
Net (decrease)/ increase in cash and cash equivalents		**(554)**	736	**(554)**	736
Cash and cash equivalents at beginning of year		**995**	259	**995**	259
Exchange differences		**-**	-	**-**	-
Cash and cash equivalents at end of year	12	**441**	995	**441**	995

Consolidated statement of changes in equity

For the year ended 31 December 2018

	Share capital £'000	Share premium £'000	Accumulated losses £'000	Total equity £'000
At 1 January 2017	**14,404**	**13,772**	**(28,501)**	**(325)**
Accumulated loss for year	-	-	(430)	(430)
Total comprehensive loss for the year attributable to equity holders of the parent	-	-	(430)	(430)
Share option & warrant costs (note 17)	-	-	21	21
Costs of share issue	-	(100)	-	(100)
Shares issued including warrant charge (note 13)	948	372	44	1,364
At 31 December 2017	**15,352**	**14,044**	**(28,866)**	**530**
Accumulated loss for year	-	-	(513)	(513)
Total comprehensive loss for the year attributable to equity holders of the parent	-	-	(513)	(513)
Share option & warrant costs (note 17)	-	-	56	56
At 31 December 2018	**15,352**	**14,044**	**(29,323)**	**73**

Company statement of changes in equity

For the year ended 31 December 2018

	Share capital £'000	Share premium £'000	Accumulated losses £'000	Total equity £'000
At 1 January 2017	**14,404**	**13,772**	**(27,117)**	**59**
Accumulated loss for year	-	-	(475)	(475)
Total comprehensive loss for the year attributable to equity holders of the parent	-	-	(475)	(475)
Share option & warrant costs (note 17)	-	-	21	21
Costs of share issue	-	(100)	-	(100)
Shares issued including warrant charge (note 13)	948	372	44	1,364
At 31 December 2017	**15,352**	**14,044**	**(28,527)**	**869**
Accumulated loss for year	-	-	(552)	(552)
Total comprehensive loss for the year attributable to equity holders of the parent	-	-	(552)	(552)
Share option & warrant costs (note 17)	-	-	56	56
At 31 December 2018	**15,352**	**14,044**	**(29,023)**	**373**

Notes to the Financial Statements

For the year ended 31 December 2018

1 General Information

Alexander Mining plc (the "Company") is a public limited company incorporated and domiciled in England and its shares are traded on the AIM Market of the London Stock Exchange. Alexander Mining plc is a holding company of a group of companies (the "Group"), the principal activities of which are the commercialisation of the Group's proprietary mineral processing technologies, either through licensing to third parties and/or the acquisition of equity stakes in amenable projects.

These consolidated financial statements were approved for issue by the Board of Directors on 31 May 2019.

2 Summary of significant accounting policies

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

a) Basis of preparation

The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRSs") in force at the reporting date and their interpretations issued by the International Accounting Standards Board ("IASB") as adopted for use within the European Union.

The preparation of financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts in the financial statements. The areas involving a higher degree of judgement or complexity, or areas where assumptions or estimates are significant to the financial statements, are disclosed in note 2(n).

The financial statements are prepared in accordance with IFRS and interpretations in force at the reporting date. The Company has not adopted any standards or interpretations in advance of the required implementation dates. The International Accounting Standards Board (IASB) issued various amendments and revisions to International Financial Reporting Standards and IFRIC interpretations. The amendments and revisions were applicable for the year ending 31 December 2018 but did not result in any material changes to the financial statements of the Group or Company.

Going Concern

At 31 December 2018 the Company's cash position was £441,000. The cash flow forecast prepared by the directors which excludes deferred salaries in relation to the former chairman indicates that the Company will need to raise additional funding by the end of 2019 in order to meet the Group's operating expenses for the 12-month period from the date of signing these financial statements. The directors are assessing several corporate transactions and believe, having taken advice from their broker, that they should be able to raise additional equity financing to enable the Group to continue as a going concern.

On this basis, the directors have concluded that it is appropriate to draw up the financial statements on the going concern basis. However, there can be no certainty that the funding required will be secured in the necessary timescale. These conditions indicate the existence of a material uncertainty that may cast significant doubt on the ability of the Company and the Group to continue as a going concern and therefore, that it may be unable to realise its assets and discharge its liabilities in the normal course of business. The financial statements do not include the adjustments that would result if the Company and Group were unable to continue as a going concern.

Standards, Amendments and Interpretations issued and adopted

IFRS 9 specifies how an entity should classify and measure financial assets, financial liabilities, and some contracts to buy or sell non-financial items. IFRS 9 requires an entity to recognise a financial asset or a financial liability in its statement of financial position when it becomes party to the contractual provisions of the instrument. The adoption of IFRS 9 did not result in any material change to the consolidated results of the Group.

Under IFRS 15 revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The principles in IFRS 15 provide a more structured approach to measuring and recognising revenue. The adoption of IFRS 15 did not result in any material change to the consolidated results of the Group given no revenue was generated in the period.

Standards, Amendments and Interpretations issued but not yet effective

No Standards and Interpretations that have been issued but are not yet effective, and that are available for early application, have been applied by the Group in these financial statements. There are no Standards or Interpretations issued, but not yet effective, which given the Group's current activities are expected to have a material effect on the financial statements in the future.

Under IFRS 16 the revised standard requires lessees to account for all leases under a single balance sheet model recognising both the rights to the asset and the liability arising under the lease. The directors have considered the impact of application of the new standard on the Group's lease commitments and given the lease commitments (see note 4) do not consider that implementation will have a significant impact.

Notes to the Financial Statements

For the year ended 31 December 2018

b) Basis of consolidation

i) **Subsidiaries**

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company (its subsidiaries) made up to 31 December each year. Control is recognised where the Company has the power to direct relevant activities, exposure to variable returns and a right to use the power to affect those returns.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies into line with those used by the Group.

ii) **Transactions eliminated on consolidation**

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

c) Foreign currency

The Company's functional and presentational currency is Sterling rounded to the nearest thousand and is the currency of the primary economic environment in which the Company operates.

i) **Foreign currency transactions**

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 translated to Sterling at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognised in the income statement.

ii) **Financial statements of foreign operations**

On consolidation, the assets and liabilities of the Group's overseas operations that do not have a Sterling functional currency are translated at exchange rates prevailing at the balance sheet date. Income and expense items are translated at the average exchange rate for the year. Exchange differences arising are recognised in other comprehensive income through the Group's translation reserve. Such translation differences are recognised in the income statement in the year in which the operation is disposed of.

iii) **Net investment in foreign operations**

Exchange differences arising from the translation of the net investment in foreign operations are recognised in other comprehensive income through the Group's translation reserve. They are released into the income statement upon disposal of the foreign operation.

d) Impairment

i) Whenever events or changes in circumstance indicate that the carrying amount of an asset may not be recoverable the asset is reviewed for impairment. An asset's carrying value is written down to its estimated recoverable amount (being the higher of the fair value less costs to sell and value in use) if that is less than the asset's carrying amount.

ii) Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognised in the income statement for the year.

e) Financial instruments

There are no material financial assets subject to the expected credit loss model defined within IFRS 9, except for cash and intercompany receivables. The level of credit risk that the Group is exposed to has not given rise to material allowances within the expected credit loss model. Management's assessment of the impact of IFRS 9 of the Company has focused on the change in IFRS 9 around expected credit losses on intercompany balances.

i) **Investments**

Investments in subsidiary undertakings are stated at cost less provision for impairment.

ii) **Trade and other receivables**

Trade and other receivables are not interest bearing and are stated at amortised cost.

iii) **Cash and cash equivalents**

Cash and cash equivalents include cash in hand, deposits held at call with banks and other short-term highly liquid investments with original maturities of three months or less.

iv) **Trade and other payables**

Trade and other payables are not interest bearing and are stated at amortised cost.

Notes to the Financial Statements

For the year ended 31 December 2018

2 Summary of significant accounting policies (continued)

f) Share based payment transactions

Directors, senior executives and consultants of the Group have been granted options to subscribe for ordinary shares. All options are equity settled. The fair value of services received in return for share options granted is measured by reference to the fair value of the share options granted, at date of grant, and is expensed to the income statement on a straight line basis over the estimated vesting period. This estimate is determined using an appropriate valuation model considering the effects of the vesting conditions and the expected exercise period.

Shares issued in settlement of expenses are recognised at the fair value of the services received.

All Share Option costs incurred are charged directly to Accumulated Losses.

g) Operating lease payments

Payments made under operating leases are recognised on a straight-line basis over the term of the lease.

h) Share capital

The Company's ordinary shares are classified as equity.

i) Provisions

Provisions are recognised when the Group has a legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated.

j) Revenue

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised. It replaces existing revenue recognition guidance, including IAS 18 Revenue. IFRS 15 is effective for annual periods beginning on or after 1 January 2018, with early adoption permitted. IFRS 15 had no impact on prior year results.

Revenue comprises the fair value of the consideration received or receivable for the provision of services to or from external customers (net of value-added tax and other sales taxes).

Sale of testwork services

The Group sells services to other mining companies. These services are generally provided on fixed-price contracts, with contract terms usually less than one year. Revenue is recognised under the percentage-of-completion method, based on the services performed to date as a percentage of the total services to be performed.

Royalty income

Royalty income is recognised on an accruals basis in accordance with the substance of the relevant agreements.

k) Research and development costs

Research costs are recognised in the income statement as an expense as incurred. Development costs are recognised in the income statement as an expense as incurred unless the development project meets specific criteria for deferral and amortisation. No development costs have been deferred to date because there is insufficient information at the balance sheet date to quantify the expected future economic benefits from the proprietary leaching technologies.

l) Taxation

The charge for taxation is based on the profit or loss for the year and takes into account deferred tax. Deferred tax is the tax expected to be payable or recoverable on temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit or loss, and is accounted for using the balance sheet method.

Deferred tax assets are only recognised to the extent that it is probable that future taxable profit will be available in the foreseeable future against which the temporary differences can be utilised.

m) Segment information

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Operating Decision Maker.

The Chief Operating Decision Maker, responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors.

n) Critical accounting estimates and judgements

The preparation of financial statements under the principles of IFRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Information about such judgements and estimates is contained in the accounting policies and/or the notes to the financial statements. The only significant estimate is the fair value of the share based payments. The key assumptions made by management related to the expected period to exercise of the options and the share price volatility. Management's estimates reflected both expectations at the date of grant and historic share price data.

Notes to the Financial Statements

For the year ended 31 December 2018

3 Segmental information

The following information is given about the Group's reportable segments:

The Chief Operating Decision Maker is the Board of Directors. The Board reviews the Group's internal reporting in order to assess performance of the Group. Management has determined the operating segment based on the reports reviewed by the Board.

The Board considers that there is only one operating segment. This incorporates similar activities and services, namely Head Office, including the development and management of intellectual property rights. The analysis has been prepared on the basis that prevailed and was reported to the Board until 31 December 2018.

As the Group is in the early stages of developing and licensing a new product, the Board assesses the performance of the business based on the segment's Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA), and overall loss before tax.

The Head Office and Intellectual Property segment recognises all costs and revenues. This segment is not further sub-divided to different geographical regions due to its knowledge and services being offered to a broad geographical spread of clients, often indirectly through multinational groups.

As the Company has only a single activity and there is also only one geographical segment, the disclosures for this segment have already been given in these financial statements.

4 Operating loss

Operating loss is stated after charging/(crediting):

	2018 £'000	2017 £'000
Exchange (gain)/ loss on foreign currency	**1**	(19)
Operating lease expense	**14**	14
Share option & warrant charge (note 17)	**40**	21
Research and development expenses	**141**	101

5 Auditor's remuneration

	2018 £'000	2017 £'000
Fees payable to the Company's auditor for the audit of parent company and consolidated financial statements	**23**	23
Tax compliance services	**3**	3
	26	26

Notes to the Financial Statements

For the year ended 31 December 2018

6 Staff costs and directors' emoluments

Directors' remuneration for the Group and Company is the same and is as set out below:

	Annual salary £'000	Fees £'000	IFRS 2 charge for options £'000	Other benefits £'000	Total £'000
2018					
M L Rosser	**10**	**-**	**12**	**-**	**22**
J S Bunyan	**-**	**10**	**8**	**-**	**18**
A M Clegg	**-**	**10**	**9**	**-**	**19**
	10	**20**	**29**	**-**	**59**
2017					
M L Rosser	11	-	5	-	16
J S Bunyan	-	10	3	-	13
A M Clegg	-	10	2	-	12
M L Sutcliffe (Resigned 29 August 2017)	7	-	3	-	10
	18	20	13	-	51

The aggregate staff costs for the year were as follows:

	Group		Company	
	2018 £'000	2017 £'000	**2018 £'000**	2017 £'000
Directors' remuneration	**30**	38	**30**	38
Other staff wages and salaries	**40**	52	**28**	28
Social security costs	**4**	4	**4**	4
IFRS 2 charges for share options granted	**35**	15	**30**	13
	109	109	**92**	83

On average, excluding non-executive directors, the Group employed 2 technical staff members (2017: 3) and 1 administration staff (2017: 1). On average, excluding non-executive directors, the Company employed 1 technical staff member (2017: 1) and 1 administration staff (2017: 1).

7 Finance income

	2018 £'000	2017 £'000
Interest on short term bank deposits	**1**	-
	1	-

Notes to the Financial Statements

For the year ended 31 December 2018

8 Income taxes

No liability to income taxes arises in the year.

The current tax charge for the year differs from the credit resulting from the loss before tax at the standard rate of corporation tax in the UK. The differences are explained below:

	2018 £'000	2017 £'000
Loss before tax	**(513)**	(430)
Current tax at 19% (2017: 19.25%)	**(98)**	(83)
Effects of:		
Expenses not deductible for tax purposes	**29**	13
Unrelieved tax losses arising in the year	**69**	70
Income tax expense	**-**	-

Unrecognised deferred tax assets

	2018 £'000	2017 £'000
Cumulative tax losses	**1,513**	1,444
Unrelieved exploration expenditure arising in overseas subsidiaries	**-**	-
Accelerated capital allowances	**-**	-
Unrecognised deferred tax asset at end of year	**1,513**	1,444

Deferred tax assets carried forward have not been recognised in the accounts because there is currently insufficient evidence of the timing of suitable future taxable profits against which they can be recovered. The tax losses amount to £8,453,887 (2017:£8,085,107).

9 Loss per share

The calculation of loss per share is based on the weighted average number of shares in issue in the year to 31 December 2018 of 1,888,730,149 (31 December 2017: 1,615,533,388) and computed on the respective profit and loss figures as follows:

	2018		**2017**	
	£'000	**Per share**	£'000	Per share
Loss - continuing operations	**(513)**	**(0.03)p**	(430)	(0.03)p

There is no difference between the diluted loss per share and the basic loss per share presented. Share options granted to employees could potentially dilute basic earnings per share in the future, but were not included in the calculation of diluted earnings per share as they are anti-dilutive for the year presented. See note 17 for further details.

Notes to the Financial Statements

For the year ended 31 December 2018

10 Investments

	Group		Company	
	2018 £'000	2017 £'000	**2018 £'000**	2017 £'000
Subsidiary undertakings - Fully impaired	**-**	-	**-**	-

Company subsidiary undertakings

As at 31 December 2018, the Group owned interests in the following subsidiary undertakings, which are included in the consolidated financial statements:

Name	Holding	Business Activity	Country of Incorporation	Registered Address
MetaLeach Limited	100%	Leaching technology development	British Virgin Islands	Akara Building 24 De Castro Street Wickhams Cay, Road Town Tortola, British Virgin Islands
Molinetes (BVI) Limited	100%	Dormant	British Virgin Islands	Akara Building 24 De Castro Street Wickhams Cay, Road Town Tortola, British Virgin Islands
Alexander Mining Katanga s.p.r.l.	100%	Dormant	Democratic Republic of Congo	No 12 Avenue Urundi Lubumbashi, Democratic Republic of Congo

11 Trade and other receivables

	Group		Company	
	2018 £'000	2017 £'000	**2018 £'000**	2017 £'000
Current assets				
Other receivables	**9**	9	**9**	9
Other taxes and social security	**4**	4	**4**	4
Prepayments and accrued income	**20**	24	**19**	24
	33	37	**32**	37

Amounts due to the Company from its subsidiary companies have been fully provided for as detailed in note 20

12 Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, and short term deposits. Cash and cash equivalents included in the cash flow statement comprise the following balance sheet amounts:

	Group		Company	
	2018 £'000	2017 £'000	**2018 £'000**	2017 £'000
Cash on hand	**441**	995	**441**	995

Notes to the Financial Statements

For the year ended 31 December 2018

13 Share capital

	2018	2017
Issued and fully paid ordinary shares with a nominal value of 0.1p (2017 0.1p)		
Number of shares	**1,888,730,149**	1,888,730,149
Nominal value (£)	**1,888,730**	1,888,730
Issued and fully paid deferred shares with a nominal value of 9.9p (2017 9.9p)		
Number of shares	**135,986,542**	135,986,542
Nominal value (£)	**13,462,667**	13,462,667
Total nominal value (£)	**15,351,397**	15,351,397

Details of share options issued during the year and outstanding at 31 December 2018 are set out in note 17.

Changes in issued Share Capital and Share Premium:

For the year ended 31 December 2018

Ordinary shares	Number of shares £'000	Share capital £'000	Share premium £'000	Total
Balance at 1 January 2018	1,888,730,149	1,889	14,044	15,933
Balance at 31 December 2018	1,888,730,149	1,889	14,044	15,933

Deferred shares	Number of shares	Deferred share capital £'000
Balance at 1 January 2018 and 31 December 2018	135,986,542	13,463

For the year ended 31 December 2017

	Number of shares	Share capital £'000	Share premium £'000	Total £'000
Balance at 1 January 2017	941,245,377	941	13,772	14,713
Shares issued for cash at 0.1p each - exercise of broker warrants, on 1 February	10,000,000	10	-	10
Shares issued for cash at 0.2p each - exercise of bonus warrants, on 1 February	1,769,772	2	2	4
Shares issued for cash at 0.14p each, on 15 February	359,000,000	359	144	503
Costs of share issue	-	-	(54)	(54)
Shares issued for cash at 0.14p each, on 28 February	176,715,000	177	70	247
Shares issued for cash at 0.15p each, on 22 November*	400,000,000	400	200	600
Costs of share issue			(46)	(46)
Costs of share issue (warrant charge)*			(44)	(44)
Balance at 31 December 2017	1,888,730,149	1,889	14,044	15,933

* As part of this placing, warrants to investors and placing warrants were issued.

Deferred shares	Number of shares	Deferred share capital £'000
Balance at 1 January 2017 and 31 December 2017	135,986,542	13,463

The deferred shares have no voting, dividend or capital distribution (except on winding up) rights. They are redeemable at the option of the Company alone.

The share premium represents the difference between the nominal value of the shares issued and the actual amount subscribed less; the cost of issue of the shares, the value of any bonus share issue, or any bonus warrant issue.

Capital and reserves

The Consolidated and Company statements of changes in equity are set out on page 17 of this report.

Notes to the Financial Statements

For the year ended 31 December 2018

14 Trade and other payables

	Group		Company	
	2018	2017	**2018**	2017
	£'000	£'000	**£'000**	£'000
Trade payables	**48**	48	**48**	48
Other taxes and social security	**1**	3	**1**	3
Accruals and deferred income	**352**	451	**51**	112
	401	502	**100**	163

Accruals and deferred income included £300,728 (2017: £353,587) owed to directors and former directors of the Company (see note 20) and £16,192 (2017: £52,631) owed to senior staff members, in respect of directors' fees or remuneration. In terms of subordination agreements signed during August 2014 between the Company and the individuals concerned, these and similarly remaining future balances may not be claimed for payment at any time when the Group's third party creditor liabilities exceed its cash or liquid assets.

Fee deferral agreements signed between the Company and the directors on 14 March 2018 deferred amounts owed to directors totalling £304,593, which may not be claimed for payment before 1 July 2019. A fee deferral agreement signed between the Company and a former director of the company on 1 March 2019 deferred amounts owed to the former director totalling £284,064, which may not be claimed for payment before 1 July 2020.

15 Financial risk management

The Group's and Company's principal financial assets comprise cash and cash equivalents and other receivables. In addition, the Company's financial assets include amounts due from subsidiaries. The Group's and Company's financial liabilities comprise: trade payables; other payables; and accrued expenses.

All of the Group's and Company's financial liabilities are measured at amortised cost. The Group's and Company's financial assets are measured at amortised cost.

The Board of Directors determines, as required, the degree to which it is appropriate to use financial instruments, commodity contracts or other hedging contracts or techniques to mitigate financial risks. The main risks for which such instruments may be appropriate are credit risk, liquidity risk and foreign currency risk, each of which is discussed below. All non-routine transactions require Board approval. During 2018 the Group has not used derivative financial instruments.

The Board consider that the risk components detailed below apply to both the Group and Company. Financial risks are managed at Group rather than Company level.

Credit risk

Credit risk refers to the risk that the Group's financial assets will be impaired by the default of a third party. The Group is exposed to credit risk on its cash and cash equivalents as set out in note 12, with additional risk attached to other receivables set out in note 11. Credit risk is managed by ensuring that surplus funds are deposited only with well-established financial institutions of high quality credit standing.

At 31 December 2018 the Group had no significant trade receivables. The Group's focus on commercialising its technologies may result in significant trade receivables during 2019, the credit risk on which will be managed by assessing the credit quality of each customer, taking into account its financial position and any other relevant factors to assess expected credit loss in accordance with the requirements of IFRS 9. The Company is exposed to credit risk through receivable balances from Group companies. See Note 20 for further detail.

Foreign currency risk

Foreign currency risk refers to the risk that the value of a financial commitment, recognised asset or liability will fluctuate due to changes in foreign currency rates. The Group reports its financial results in Sterling and is therefore exposed to foreign currency risk as a result of financial assets, future transactions and investments in foreign companies denominated in currencies other than Sterling.

Exchange gains and losses on financial assets or future transactions are recognised directly in the income statement. A proportion of the Group's costs are incurred in US Dollars, Australian Dollars and New Zealand Dollars. Accordingly, movements in the Sterling exchange rate against these currencies could have a detrimental effect on the Group's results and financial condition. Such changes are not considered likely to have a material effect on the Group's financial position at 31 December 2018.

Foreign exchange risk is managed by maintaining some cash deposits in currencies other than Sterling. The table below shows the currency profiles of cash and cash equivalents:

	2018	2017
	£'000	£'000
Sterling	**439**	993
US Dollars	**2**	2
Australian Dollars	**-**	-
	441	995

The table below shows an analysis of the currency of the net monetary assets and liabilities in the Sterling functional currency of the Group:

	2018	2017
	£'000	£'000
Balances denominated in		
Sterling	**387**	883
US Dollars	**2**	1
Australian Dollars	**(52)**	(94)
New Zealand Dollars	**(284)**	(285)
	53	505

Notes to the Financial Statements

For the year ended 31 December 2018

Commodity price risk
Commodity price risk is the risk that the Group's future earnings will be adversely impacted by changes in the market prices of commodities. The Group is exposed to commodity price risk as its future revenues may be determined by reference to market prices of metals.

In addition to any new projects acquired by the Group, future revenue streams may include royalties from the development of third party assets. The Group's revenue from such royalty streams will be dependent on future commodity prices, both in terms of the absolute value of the royalty and the commodity price required for the successful economic development of such assets.

Liquidity risk
Liquidity risk relates to the ability of the Group to meet future obligations and financial liabilities. The Group monitors its risk to a shortage of funds using cash flow models, which consider existing financial assets, liabilities and projected cash inflows and outflows from operations.

The table below sets out the maturity profile of financial liabilities at 31 December.

	Group		Company	
	2018 £'000	2017 £'000	**2018 £'000**	2017 £'000
Due in less than one month	**54**	68	**53**	66
Due between one and three months	**6**	5	**6**	5
Due between three months and one year	**341**	429	**41**	92
	401	502	**100**	163

31 December 2018 balances due between three months and one year, include amounts owed to directors and senior management. Fee deferral agreements signed between the Company and the directors on 14 March 2018 deferred amounts owed to directors and senior management, totalling £304,593, which may not be claimed for payment before 1 July 2019. A fee deferral agreement signed between the Company and a former director of the company on 1 March 2019 deferred amounts owed to the former director totalling £284,064, which may not be claimed for payment before 1 July 2020.

To date the Group has relied upon shareholder funding of its activities. Development of intellectual property, the acquisition of new opportunities, or the recovery of royalty income from third party assets, may be dependent upon the Group's ability to obtain further financing through joint ventures, equity or debt financing, corporate developments or other means. Although the Group has been successful in the past in obtaining equity financing there can be no assurance that the Group will be able to obtain adequate financing in the future or that the terms of such financing will be favourable.

Based on a review of the Group's budgets and cash flow forecasts, the directors currently anticipate that further funding will be required by the end of 2019 in order to continue its operations and to meet its commitments.

In common with many mining, exploration and intellectual property development companies, the Company needs to raise finance for its activities in discrete tranches to finance its activities for limited periods. The directors are confident that the Company currently has a range of corporate development opportunities which could include significant funding outcomes and moreover that, if necessary, any further funding can be raised as and when required.

Interest rate risk profile of financial assets
Interest rate risk is the risk that the value of a financial instrument or cash flows associated with the instrument will fluctuate due to changes in market interest rates. Interest rate risk arises from interest bearing financial assets and liabilities that the Group uses. Interest bearing assets comprise cash and cash equivalents. It is the Group's policy to settle trade payables within the credit terms allowed and the Group does not therefore incur interest on overdue balances.

Fair values of financial assets and liabilities
It is the directors' opinion that the carrying values of the Group's and the Company's financial assets and liabilities as at 31 December 2018 and 31 December 2017 are not materially different from their fair values. They have therefore not been shown separately.

16 Capital management

The Group's objective when managing capital is to safeguard the entity's ability to continue as a going concern, and develop its activities to provide returns for shareholders and benefits for other stakeholders.

The Group's capital structure comprises all components of equity (i.e. ordinary share capital, share premium and retained earnings). At 31 December 2018 and 31 December 2017 the Group had no debt. When considering the future capital requirements of the Group and the potential to fund specific project development via debt the directors consider the risk characteristics of all of the underlying assets in assessing the optimal capital structure.

Notes to the Financial Statements

For the year ended 31 December 2018

17 Share based payments and share options

(i) Executive Share Option Plan

The Group operates an Executive Share Option Plan, under which directors, senior executives and consultants have been granted options to subscribe for ordinary shares. All options are share settled.

The fair value of services received in return for share options granted is measured by reference to the fair value of the share options granted. This estimate is based on a Black-Scholes model which is considered most appropriate considering the effects of the vesting conditions, expected exercise period and the payment of dividends by the Company. One third of the options granted on 12 May 2014 vest on each of 01 June 2014, 01 June 2015 and 01 June 2016 and do not have any other vesting conditions.

On the 29 July 2016 43,300,000 share options were granted. One third of the options granted vest on each of the 1st, 2nd and 3rd anniversary and do not have any other vesting conditions.

On the 23 May 2018 94,000,000 share options were granted. All the options granted vested immediately.

On the 1 July 2018 4,000,000 share options were granted. All the options granted vested immediately.

The following inputs were used in the calculation of the fair value of the share options issued or awarded during the period ended 31 December 2018, 31 December 2016 and 31 December 2014:

Date of Grant	1 July 2018	24 May 2018	29 July 2016	12 May 2014
Fair value (p) [1]	0.04p	0.05p	0.12p	1.5p
Share price (p)	0.118p	0.135p	0.125p	3.875p
Exercise price (p)	0.15p	0.15p	0.22p	4.92p
Expected volatility [2]	61%	62%	222%	68%
Option life	1 year	1 year	3 years	3 years
Expected dividends	0.00%	0.00%	0.0%	0.0%
Risk-free rate of return	0.5%	0.5%	0.5%	0.5%

1 The fair value of options issued or awarded on 12 May 2014, 29 July 2016, 24 May 2018 and 1 July 2018 were 1.5p, 0.12p, 0.03p and 0.02p per share respectively.

2 Volatility for options granted was estimated based on the Company's daily closing share price during the 12 months prior to the issue of the share options.

(ii) Other share options or warrants

On 2 October 2015 the Company granted 34,999,998 warrants to subscribers to a 105,000,000 share placing as a 1 to 3 warrant to placing share issue, exercisable at 0.45 pence until 8 October 2019 - the subscriber warrants.

On 2 October 2015 the Company granted 7,359,375 warrants to JIM Nominees Ltd exercisable at 0.4 pence until 8 October 2019, for broker services.

On 24 May 2016 the Company issued 90,477,572 bonus warrants to existing shareholders of the Company at 4;30pm on the 24 May 2016 on the basis of 1 warrant per every 4 qualifying shares held by shareholders. The warrants were exercisable in the periods of 15 working days ending on the following three dates: 20 July 2016 (32,494,611 warrants exercised); 20 October 2016 (6,840,278 warrants exercised); and 20 January 2017 (the "Final Exercise Date 1,769,772 warrants exercised"). The exercise price of the warrants was 0.1p, 0.15p and 0.2p per new Ordinary Share, on each of the exercise dates respectively. 49,372,711 bonus warrants expired on the final exercise date.

On 25 May 2016, the Company issued 50,000,000 warrants to Cornhill Capital Limited, exerciseable at 0.1p pence until 19 May 2021. 15,000,000; 11,741,665; 13,258,335 and 10,000,000 warrants were exercised on the 20 July 2016, 31 August 2016, 28 September 2016 and 01 February 2017 respectively.

	Broker services				Bonus warrants		
Date of Grant	**25 May 2016**	**25 May 2016**	**25 May 2016**	**25 May 2016**	**24 May 2016**	**24 May 2016**	**24 May 2016**
Fair value (p) [1]	0.04p	0.05p	0.06p	0.07p	0.05p	0.06p	0.06p
Share price (p)	0.115p	0.115p	0.115p	0.115p	0.125p	0.125	0.125p
Exercise price (p)	0.1p	0.1p	0.1p	0.1p	0.1p	0.15p	0.2p
Expected volatility [2]	210%	210%	210%	210%	211%	211%	211%
Option life	0.2 years	0.3 years	0.4 years	0.7 years	0.2 years	0.4 years	0.7 years
Expected dividends	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Risk-free rate of return	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

1 The fair value of bonus warrants issued or awarded on 24 May 2016 was 0.05p, 0.06p, and 0.06p per share respectively. The fair value of broker warrants issued or awarded on 25 May 2016 was 0.04p, 0.05p, 0.06p and 0.07p per share respectively.

2 Volatility for warrants granted was estimated based on the Company's daily closing share price during the 12 months prior to the issue of the warrants.

On 22 November 2017, the Company issued 400,000,000 new shares of 0.1p each for cash at 0.15p each to raise £600,000 (gross). In connection with that placing, the Company issued 200,000,000 warrants to the placees on the basis of 1 warrant for every two Ordinary shares subscribed pursuant to the placing, valid for 2 years to subscribe for ordinary shares at 0.225p per share - the subscriber warrants. This is not a share based payment and therefore this is recorded directly in equity (note13). In addition the Company also issued 40,000,000 warrants, for broker services, to JIM nominees Limited as nominee for Turner Pope Investments (TPI) Ltd as part of its remuneration for effecting the Placing, valid for 3 years from the date of admission of the new placing shares at 0.15p per share.

Notes to the Financial Statements

For the year ended 31 December 2018

The following inputs were used in the calculation of the fair value of the warrants issued or awarded during 2017:

Date of Grant	**Subscriber warrants 22 November 2017**	**Broker services 22 November 2017**
Fair value (p) [1]	0.04p	0.05p
Share price (p)	0.138p	0.138p
Exercise price (p)	0.225p	0.150p
Expected volatility [2]	68%	68%
Option life	2 years	3 years
Expected dividends	0.0%	0.0%
Risk-free rate of return	0.5%	0.5%

1 The fair value of broker warrants issued or awarded on 22 November 2017 was 0.05p per share respectively. The fair value of subscriber warrants issued or awarded on 22 November 2017 was 0.04p per share.

2 Volatility for warrants granted was estimated based on the Company's daily closing share price during the 12 months prior to the issue of the warrants.

Total contingently issuable shares

	2018	2017
Executive share Option Plan	**154,200,000**	56,200,000
Other share options and warrants	**282,359,373**	282,359,373
Total contingently issuable shares	**436,559,373**	338,559,373

The number and weighted average exercise prices of share options and warrants are as follows:

	2018		2017	
	Weighted average exercise price	**Number of options**	Weighted average exercise price	Number of options
Outstanding at the beginning of the year	0.421p	338,559,373	0.57p	163,301,856
Granted during the year (Subscriber warrants)	-	-	0.225p	200,000,000
			-	-
Granted during the year (Warrants for broker services)			0.15p	40,000,000
Granted during the year (Share options)	0.15p	98,000,000	-	-
Exercised during the year (Warrants for broker services)			0.1p	(10,000,000)
Exercised during the year (Bonus warrants)			0.2p	(1,769,772)
Lapsed during the year (Warrants for broker services)			0.0p	(3,600,000)
Lapsed during the year (Bonus warrants)			0.0p	(49,372,711)
Outstanding at the end of the year	0. 361p	436,559,373	0.421p	338,559,373
Exercisable at the end of the year	0. 361p	422,126,040	0.421p	309,692,706

Share options and warrants outstanding at 31 December 2018 had a weighted average exercise price of 0.361 pence (2017: 0.421 pence) and a weighted average contractual life of 3.48 years (2017: 2.75 years). To date no share options have been exercised. There are no market based vesting conditions attaching to any share options outstanding at 31 December 2018.

12,900,000 options outstanding at the end of the year have a final exercise date of 22 December 2020. 141,300,000 options outstanding at the end of the year have a final exercise date of 28 July 2026.

7,359,375 warrants issued for broker services outstanding at the end of the year have a final exercise date of 8 October 2019. 40,000,000 warrants issued for broker services outstanding at the end of the year have a final exercise date of 22 November 2020.

34,999,998 subscriber warrants outstanding at the end of the year have a final exercise date of 8 October 2019. 200,000,000 subscriber warrants outstanding at the end of the year have a final exercise date of 22 November 2019.

Notes to the Financial Statements

For the year ended 31 December 2018

18 Commitments

Future commitments for the Group under non-cancellable operating leases are as follows:

	2018 £'000	2017 £'000
Payable within one year	-	-

The Group does not sub-lease any of its leased premises. Payments under operating leases recognised in operating loss in the year are set out in note 4.

19 Contingent liabilities

There were no contingent liabilities at 31 December 2018 or 31 December 2017.

20 Related parties

The Group's investments in subsidiaries have been disclosed in note 10.
During the year the Company entered into the following transactions with other Group companies:

	Sale of goods and services	Amounts owed by group companies			
	£'000	At 1 January £'000	Increase in year £'000	Provisions in year £'000	At 1 December £'000
MetaLeach Limited - 2018	10	-	194	(194)	-
MetaLeach Limited - 2017	10	-	140	(140)	-

At 31 December 2018 the Company had an outstanding amount receivable from MetaLeach Limited of £3,347,504 (2017: £3,153,593). The Company has recognised a provision of £3,347,504 (2017: £3,153,593) against that balance, which has been assessed as impaired due to the uncertainty of success, over extended timeframes, surrounding the subsidiary's operations. The company has applied the expected credit loss model as required under IFRS 9 and the balance remained fully impaired. The amount owed is unsecured, interest-free, and has no fixed terms of repayment. The balance will be settled in cash. No guarantees have been given or received.

Details of directors' emoluments are set out in note 6. Compensation for key management personnel was as follows:

	2018 £'000	2017 £'000
Short-term employee benefits	30	38
National Insurance contributions	1	1
Other benefits	-	-
IFRS 2 charges for share options granted	29	13
	60	52

At 31 December 2018, the following amounts were owed to directors and former directors of the Company in respect of deferred payments of directors' fees. These amounts, totalling £300,728 (2017:£ 353,587), are included in Trade and Other Payables (note 14):

Mr M L Sutcliffe	£284,064 (2017: £284,798)
Mr M L Rosser	£ - (2017: £31,712)
Mr J S Bunyan	£ 1,250 (2017: £6,525)
Mr R O Davey	£ 6,845 (2017: £13,689)
Mr E M Morfett	£ 8,569 (2017: £17,138)

The movement in the amounts owed represent payments made in the year.

21 Post balance sheet events

On 7 May 2019 Alexander reported that it had received notification that its MetaLeach Limited ("MetaLeach") subsidiary has been granted a patent for a Method for Leaching Zinc Silicate Ores in Turkey, patent number TR 2013 07721 B. The patent will remain in force until 26 June 2033.

On 8 May 2019 Alexander reported that Deep-South Resources Inc. had executed a Technology Licence & Consultancy Agreement with Alexander Mining plc. For further information see <https://polaris.brighterir.com/public/alexander_mining/news/rns/story/xp4og9x> and <https://polaris.brighterir.com/public/alexander_mining/news/rns/story/xq484lw>.

Notice of Annual General Meeting

(incorporated and registered in England and Wales under number 5357433)

Notice is hereby given that the Annual General Meeting of Alexander Mining plc will be held at the offices of Druces LLP, Salisbury House, London Wall, London, EC2M 5PS at 11:00am on Friday 28 June 2019 in order to consider and, if thought fit, pass resolutions 1 to 4 as ordinary resolutions and resolution 5 as a special resolution:

Ordinary Resolutions

1. To receive, consider and adopt the Directors' Report and Accounts for the year ended 31st December 2018, together with the Auditor's Report thereon.

2. To re-elect as a director Mr A M Clegg who retires by rotation in accordance with Article 93 of the Company's Articles of Association and who, being eligible, offers himself for re-election.

3. To re-appoint BDO LLP of 55 Baker Street, London W1U 7EU, as auditor of the Company and to authorise the directors to determine its remuneration.

4. That the directors be generally and unconditionally authorised pursuant to Section 551 of the Companies Act 2006 (the "2006 Act") to allot shares in the Company ("Shares") or grant rights to subscribe for or to convert any security into shares in the Company ("Rights") up to an aggregate nominal amount of £3,000,000 provided that this authority shall, unless previously revoked or varied by the Company in general meeting, expire at the conclusion of the next Annual General Meeting of the Company following the date of the passing of this resolution or (if earlier) 12 months from the date of passing this resolution, but so that the directors may before such expiry make an offer or agreement which would or might require Shares to be allotted or Rights to be granted after such expiry and the directors may allot Shares or grant Rights in pursuance of that offer or agreement as if the authority hereby conferred had not expired.

This authority is in substitution for all previous authorities conferred on the directors in accordance with Section 80 of the Companies Act 1985, or Section 551 of the 2006 Act.

Special Resolution

5. That, subject to the passing of Resolution 4, the directors be given the general power to allot equity securities (as defined by Section 560 of the 2006 Act) for cash, either pursuant to the authority conferred by Resolution 4 or by way of a sale of treasury shares, as if Section 561(1) of the 2006 Act did not apply to any such allotment, provided that this power shall be limited to:

5.1 the allotment of equity securities in connection with an offer by way of a rights issue:

5.1.1 to the holders of ordinary shares in proportion (as nearly as may be practicable) to their respective holdings; and

5.1.2 to holders of other equity securities as required by the rights of those securities or as the directors otherwise consider necessary.

But subject to such exclusions or other arrangements as the Board may deem necessary or expedient in relation to treasury shares, fractional entitlements, record dates, legal or practical problems in or under the laws of any territory or the requirements of any regulatory body or stock exchange; and

5.2 the allotment (otherwise than pursuant to paragraph 5.1 above) of equity securities up to an aggregate nominal amount of £3,000,000.

The power granted by this resolution will unless renewed, varied or revoked by the Company, expire at the conclusion of the next Annual General Meeting of the Company following the date of the passing of this resolution or (if earlier) 12 months from the date of passing this resolution, save that the Company may, before such expiry make offers or agreements which would or might require equity securities to be allotted after such expiry and the directors may allot equity securities in pursuance of any such offer or agreement notwithstanding that the power conferred by this resolution has expired.

This resolution revokes and replaces all unexercised powers previously granted to the directors to allot equity securities as if section 561(1) of the 2006 Act did not apply, but without prejudice to any allotment of equity securities already made or agreed to be made pursuant to such authorities.

The Board of Alexander Mining plc unanimously recommends that shareholders vote in favour of all the proposed resolutions. The Board considers that resolutions 4 and 5 are in the best interests of the Company to enable the Company to take advantage of relevant opportunities, including opportunities to raise additional working capital, as they arise.

Members or their appointed Proxies are entitled to ask questions of the Board at the Annual General Meeting. The Board will answer any such questions unless (i) to do so would interfere unduly with the conduct of the meeting or involve the disclosure of confidential information; or (ii) the answer has already been given on the Company's web-site; or (iii) to answer such questions is contrary to the Company's best interest or the good order of the meeting.

By order of the Board

John Getty
Company Secretary
31 May 2019

Registered Office:
Salisbury House, London Wall, London, EC2M 5PS

Notes to the Notice of Annual General Meeting

1. A member of the Company entitled to attend and vote at this meeting is entitled to appoint one or more proxies to exercise all or any of the member's rights to attend, speak and vote at the meeting. A proxy need not also be a member.

   If a member appoints more than one proxy to attend the meeting, each proxy must be appointed to exercise the rights attached to a different share or shares held by the member.

   Last year we notified shareholders that from 2019 onwards the Company would no longer be posting proxy-voting cards to shareholders in order to further reduce the environmental impact. So this year you can appoint a proxy using one of the following methods.

   Appointing a Proxy

   - Via the registrars website www.signalshares.com. To vote online you will need to logon to your Signal Shares account or register if you have not already done so. To register you will need your investor code which can be found on your share certificate. Once registered you will immediately be able to vote.

   - by requesting a hard copy by calling the registrar Link Asset services on 0871 664 0391. Calls cost 12p per minute plus your phone company's access charge. From overseas call +44 (0) 371 664 0391. Calls outside the United Kingdom will be charged at the applicable international rate. Lines are open between 9.00 a.m. – 5.30 p.m. Monday to Friday excluding public holidays in England and Wales.

   For a proxy appointment to be valid, it must be received by the registrar Link Asset Services at 34 Beckenham Road, Beckenham, Kent, BR3 4TU by 11:00am on Wednesday 26 June 2019.

   The appointment of a Proxy will not preclude a Shareholder from attending the Annual General Meeting and voting in person if he/she wishes to do so. Accordingly, whether or not you intend to attend the Annual General Meeting in person, Shareholders are requested to appoint a Proxy as soon as possible.

2. A corporation which is a member can appoint one or more corporate representatives who may exercise on its behalf all of its powers as a member, provided that they do not do so in respect of the same shares.

3. The Company, pursuant to resolution 41(1) of the Uncertificated Securities Regulations 2001, specifies that only those shareholders registered in the register of members of the Company at close of business on 26 June 2019 (or, if the meeting is adjourned, at close of business on the day two days prior to the adjourned meeting) be entitled to attend and vote at the Annual General Meeting (and for the purpose of determining the number of votes a member may cast). Changes to the register of members after the relevant time shall be disregarded in determining the rights of any person to attend and vote at the meeting.

4. If the Chairman, as a result of any proxy appointments, is given discretion as to how the votes the subject of those proxies are cast and the voting rights in respect of those discretionary proxies, when added to the interests in the Company's securities already held by the Chairman, result in the Chairman holding such number of voting rights that he has a notifiable obligation under the Disclosure and Transparency Rules, the Chairman will make the necessary notifications to the Company and the Financial Conduct Authority.

   As a result, any member holding 3% or more of the voting rights in the Company who grants the Chairman a discretionary proxy in respect of some or all of those voting rights and so would otherwise have a notification obligation under the Disclosure and Transparency Rules, need not make a separate notification to the Company and the Financial Conduct Authority.

5. The following documents will be available for inspection during normal business hours on any week day at the Company's registered office up until the date of the Annual General Meeting and at the place of the meeting from 30 minutes before the start of the meeting on 28 June 2019 until the end of the meeting:

   i) a copy of the Memorandum and Articles of Association of the Company;

   ii) the contracts of service and letters of appointment between the Company or its subsidiary undertakings and its directors.

6. To appoint proxies or give/amend an instruction to an appointed proxy via the CREST system, the CREST message must be received by the issuer's agent (ID: RA10) by 11:00am on 26th June 2019 and time of receipt will be taken as the time (as determined by the timestamp applied by the CREST Applications Host) that the issuer's agent is able to retrieve the message. CREST Personal Members or other CREST Sponsored Members, and CREST Members who have appointed voting service providers, should refer to their sponsor/voting service provider for advice on appointing proxies via CREST. Regulation 35 of the Uncertificated Securities Regulations 2001 will apply to all proxy appointments sent by CREST. For information on CREST procedures and system timings, please refer to the CREST Manual.

7. As at 6.00pm on 30 May 2019, the Company's issued ordinary share capital comprised 1,888,730,149 ordinary shares of 0.1 penny each. Each ordinary share carries the right to one vote at the General Meeting of the Company and, therefore, the total number of voting rights in the Company as at 6.00pm on 30 May 2019 is 1,888,730,149.

8. Except as provided above, members who have general queries about the meeting should call the shareholder helpline of Link Asset Services on +44 (0) 871 664 0300. Calls cost 12p per minute plus network extras. If you are outside the United Kingdom, please call +44 371 664 0300. Calls outside the United Kingdom will be charged at the applicable international rate. Lines are open between 9.00am – 5.30pm, Monday to Friday excluding public holidays in England and Wales. (No other methods of communication will be accepted).

   You may not use any electronic address provided either in this Notice of Annual General Meeting or any related documents to communicate with the Company for any purposes other than those expressly stated.

Company Information

Company Information

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Telephone: +44 (0) 20 7078 9564
Email: info@alexandermining.com
Website: www.alexandermining.com

Company registration number: 5357433

Directors and Advisors

Directors
A M Clegg
M L Rosser
J S Bunyan

Company Secretary
J A Getty

Registrar

Link Asset Services
The Registry, 34 Beckenham Road,
Beckenham, Kent, BR3 4TU

Auditor

BDO LLP
55 Baker Street, London, W1U 7EU

Solicitors

Druces LLP
Salisbury House, London Wall,
London, EC2M 5PS

Nominated Adviser

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