# ANNUAL REPORT 2012

For the year ended 31 March 2012





# WELCOME TO THE SIRIUS MINERALS 2012 ANNUAL REPORT

SIRIUS MINERALS PLC IS A GLOBALLY DIVERSIFIED POTASH DEVELOPMENT COMPANY LISTED ON THE LONDON STOCK EXCHANGE'S AIM MARKET.

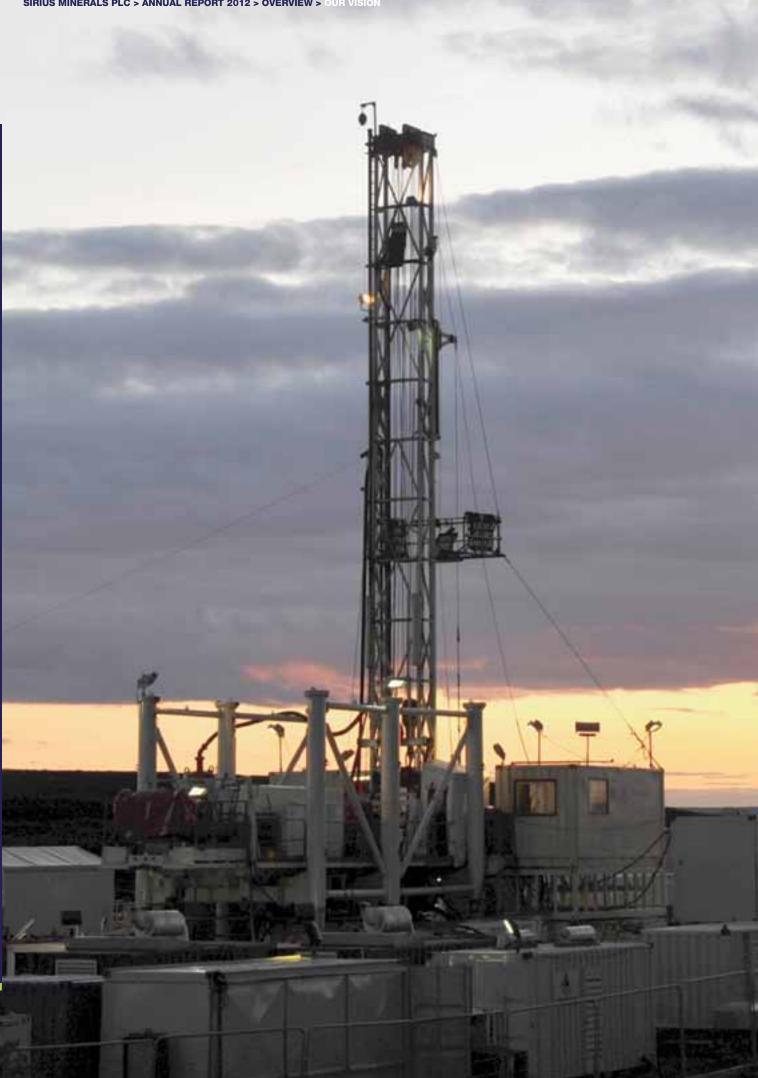
SIRIUS MINERALS IS PRIMARILY FOCUSED ON THE DEVELOPMENT OF THE WORLD'S LARGEST AND HIGHEST-GRADE POLYHALITE DEPOSIT IN THE UNITED KINGDOM, THE YORK POTASH PROJECT. THE COMPANY IS ALSO COMMITTED TO DEVELOPING A PORTFOLIO OF PROJECTS AND CONTINUES TO REVIEW OPPORTUNITIES AROUND THE GLOBE THAT FIT THE COMPANY'S LONG TERM STRATEGY TO BECOME A LEADING GLOBAL POTASH PRODUCER.

This Annual Report contains forward looking statements. These forward looking statements are not guarantees of future performance. Rather they are based on current views and assumptions and involve known and unknown risks, uncertainties and other factors that may cause actual results to differ from any future results or developments expressed or implied from the forward looking statements. Each forward looking statement speaks only as of the date of the particular statement.

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## OUR VISION

# TO BECOME A LEADING GLOBAL POTASH PRODUCER

LARGE SCALE: TARGET OF BECOMING A TOP FIVE POTASH PRODUCER

LOW COST: OPERATIONS HAVE THE POTENTIAL TO BE AT THE BOTTOM OF THE COST CURVE FOR KEY MARKETS

LONG LIFE: ASSETS WITH A RESOURCE LIFE OF OVER 50 YEARS

HIGH GROWTH: EXPANDABLE ASSETS AND PORTFOLIO OF NEW PROJECTS

**INDEPENDENT AND CUSTOMER ALIGNED:** ENGAGE DIRECTLY WITH CUSTOMERS AND ALIGN THE COMPANY AND ASSETS WITH MAJOR CUSTOMERS

# CHAIRMAN'S STATEMENT

SIRIUS MINERALS IS ONE OF THE WORLD'S MOST EXCITING RESOURCE DEVELOPMENT COMPANIES AND WE HAVE NOW PUT IN PLACE MANY OF THE KEY BUILDING BLOCKS THAT WILL UNDERPIN THE SUCCESS OF SIRIUS FOR YEARS TO COME

It is with great pleasure that I submit to you my first Chairman's Statement for Sirius Minerals Plc.

This past year has been one of tremendous advancement for the Company. Without doubt, we are now considered one of the world's most exciting resource development companies and are being closely watched around the world by the key participants and observers in the fertiliser industry, and more specifically, the potash sector. Major mining companies, infrastructure players and providers of capital in Europe, Asia, the Middle East and the Americas are now very aware of Sirius and our outstanding potential.

The strategic importance of food security is a challenge for many countries that are under continued pressure from population and economic growth. This is particularly relevant in the major population growth areas of China, India, Brazil, Indonesia, certain parts of Africa and the Middle East. We are now even more convinced that the fertiliser industry, especially potassium enriched minerals, present a major long term investment and expansion opportunity for Sirius. In the past year the Company has focused on putting in place many of the key 'building blocks' that will underpin the success of Sirius for years to come.

Your Board has changed markedly this past year. I am very proud to have been elected Chairman in late 2011 after Chris Catlow opted to move to the Deputy Chairman role. I have worked alongside Chris for many years and am very grateful that he is continuing to contribute significantly to our Company. Both Richard Poulden and Derek Stonley, long standing directors during our formative period, retired from the Board. Our CFO and Finance Director Andrew Lindsay also stepped down from the Board. We appreciate each of their contributions to our significant progress this past year.

We are very pleased to have added to the Board, as non-executive directors, former UK Cabinet Minister, Lord Hutton of Furness and the CEO of Network Rail, Sir David Higgins. Both of them have no other non-executive director roles in listed companies and bring a breadth of skills and experience to Sirius which fit perfectly with our challenges in the years ahead. In May this year, Jason Murray, after a long history of large scale project and company financings, became our new CFO and Finance Director.



Russell Scrimshaw Chairman

We are now even more convinced that the fertiliser industry, especially potassium enriched minerals, present a major long term investment and expansion opportunity for Sirius. The goals we have set for the Company cannot be achieved without our very able Managing Director and CEO, Chris Fraser. His team of highly skilled experts work hand-in-hand with world class design and construction partners in the critical areas of the York Potash Project such as shafts, mining, pipelines, minerals processing and shipping. I am very pleased to tell you that many of the key members of the operational and financial management team who will oversee the various elements of our transition from development to production are now also in place.

The potential and scale of the York Potash Project and quality of the management team have enabled the Company to continue the evolution of our shareholder register during the year, including the addition of several new institutional investors. Recent difficult global economic times have added a new level of volatility to our market value, so we thank our shareholders who continue to show their faith in the Company's direction, capability and strategy.

In January this year the Company raised £55 million in an equity fundraising. This amount was raised to ensure the Company had sufficient funding for drilling and the feasibility studies for the York Potash Project during these times of volatility and uncertainty. Given the issues we have witnessed in world markets over the last six months, we feel that this decision was the right one and believe shareholders should take comfort that the Company is well funded for this next important stage of our evolution.

I would like to thank all who have supported us in the local community of North Yorkshire including landowners, local councils and business people, for helping us to achieve our progress to date. We are well placed to reach the goals articulated in the Detailed Scoping Study released in April this year, but it will require hard work, attention to detail and, most importantly, innovation and creative thinking. We have already demonstrated our ability to look at the York Potash Project differently to others and we believe in continually questioning conventional thinking as we encounter the challenges that emerge between today and project success.

Over the next 12 months, there is much work to be done and we expect to hire many skilled personnel, some of whom will be in construction focused roles and an increasing number of whom will be permanent operational staff. This will benefit the local North Yorkshire community.

The UK Parliament has discussed a focus to 're-industrialise Britain' and it is our view that the York Potash Project meets and exceeds all the criteria to help Britain, and in particular North Yorkshire to achieve this. We aim to create a long term, environmentally sustainable, safe, economically attractive and internationally significant potash business. We believe our Project will not only provide real economic stimulus to the country and the region, but also help position Britain as a proactive player at the forefront of the challenge to create global food security.

## THANK YOU FOR YOUR INTEREST AND SUPPORT.

RUSSELL SCRIMSHAW Chairman

# **A YEAR IN REVIEW**

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A YEAR OF SIGNIFICANT PROGRESS AT THE YORK POTASH PROJECT SUPPORTED BY KEY CORPORATE DEVELOPMENTS.

## APR/MAY/JUN 2011

JUL/AUG/SEP 2011

OCT/NOV/DEC 2011

## APPOINTMENT

Appointment of **Peter Woods** Non-Executive Director



## PLANNING

Initial planning application approved for **SM1 and SM2** 





## DRILLING

Commencement of SM1 drilling



PLANNING

Planning application approved for a total of six drill holes





## DRILLING

(►

Preliminary coring results from SM1 (indicating 65m of polyhalite)



## APPOINTMENT

Appointment of **Graham Clarke** Operations Director



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## APPOINTMENT

Board restructure: **Russell Scrimshaw** Chairman and **Chris Catlow,** Deputy Chairman



## RESULTS

Assay results for SM1

## PLANNING

Planning application approved for three further drill holes

## **JAN/FEB 2012**



## MAR 2012



## APR/MAY/JUN/JUL 2012

## APPOINTMENT

Appointment of Lord Hutton Non-Executive Director



## RESULTS

Preliminary coring results from SM2

## EQUITY PLACEMENT

**£55 million** equity placement (26 January 2012)



## ANNOUNCEMENT

Announcement of **Jason Murray** CFO and Finance Director



## RESULTS

Assay results of SM2

## APPOINTMENT

Appointment of **Sir David Higgins** Non-Executive Director



## RESULTS

Preliminary coring results from SM3





## SCOPING STUDY

**Detailed Scoping Study** confirming technical and economic viability of YPP

## RESULTS

Assay results for SM3 and SM3 deflection



## LAUNCH

Launch of York Potash Foundation

## RESOURCE STATEMENT

**1.35 billion tonnes Maiden Resource Statement** Largest and highest grade polyhalite resource globally



## APPOINTMENT

Appointment of Alan Watling MD of York Potash



## RESULTS

**Preliminary coring** results from SM4 and SM4 deflection

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# CHIEF EXECUTIVE OFFICER'S STATEMENT

THIS YEAR HAS BEEN ONE OF GREAT ACHIEVEMENT AND PROGRESS BUT ALSO SIGNIFICANT LEARNING FOR THE COMPANY, AS WE CONTINUE TO RAPIDLY DEVELOP OUR FLAGSHIP ASSET, THE YORK POTASH PROJECT

On behalf of the entire Sirius team, I am pleased to provide the following update on the progress of the Company over the last year in executing our strategic plan to become one of the world's leading potash producers.

## SAFETY

In January 2011 we committed ourselves to a safety goal of Zero Harm. This is the highest and in our view the only standard under which a mining company should operate.

As we continue to instil this commitment into our team and contractors, we recognise that safety performance to date on the exploration drilling sites has been below industry standard with three lost time incidents resulting in seven days lost. We will not be satisfied until we reach our target of Zero Harm.

As we move into the new financial year, we have increased our team's vigilance on safety and in particular contractor selection and retention. We have also appointed a dedicated safety officer to ensure appropriate training, monitoring and corrective actions are taken to enable us to achieve our goal of Zero Harm. There can be no compromise on safety and I trust all shareholders share this commitment.

### **MILESTONES**

In the past year, the Company has successfully confirmed the world-class potential of its flagship York Potash Project and has put in place the vital foundations to deliver financing, construction and production as quickly as possible.

## PEOPLE – THE KEY TO SUCCESSFUL DEVELOPMENT

The continued development of the management team has been a highlight for Sirius. We have been successful in bringing a depth of experience, leadership and knowledge that will be invaluable as we rapidly develop the York Potash Project.

Graham Clarke joined us in November 2011 as Operations Director from Cleveland Potash Limited. Graham was Managing Director and spent 26 years at the Boulby potash mine in North Yorkshire (12 miles to the north-west of the York Potash Project), the UK's only operational potash mine and the world's only polyhalite mine. Graham brings unique insights on all aspects of a largescale underground potash mine and processing facility and was instrumental in commissioning Boulby's polyhalite extraction project.



Chris Fraser Managing Director and CEO

Jason Murray was appointed Finance Director and Chief Financial Officer in February 2012. With 20 years' experience in senior positions at Bank of America Merrill Lynch, Citigroup and J.P. Morgan, Jason brings outstanding market leading credentials in fundraising across many sectors and most importantly, the mining sector.

In June 2012 we announced the appointment of Alan Watling as Managing Director of York Potash. Alan will be responsible for leading the York Potash Project through Feasibility Studies to the commencement of production. Alan has an unrivalled track-record of delivering large scale projects into production, having led the construction and development for both African Minerals Limited and Fortescue Metals Group Limited.

The current blend of Board and management resources provides Sirius with the required skill base to ensure that all aspects of the York Potash Project are being addressed and advanced to the highest standards as quickly as possible.

## RESOURCE – HIGH QUALITY PROJECTS ARE UNDERPINNED BY WORLD CLASS GEOLOGY

In July 2011, leveraging a significant amount of historical data, the Company commenced a drilling programme to:

- Prove that the York Potash Project is the world's largest resource of polyhalite;
- 2. Define sufficient quantity and quality of mineral into the highest category of resource to underpin the financing of a large-scale potash project; and
- 3. Identify the optimum mine head location and commence mining operations.

In June 2012, we were pleased to announce that from just three holes we achieved our first goal – confirming the York Potash Project as the world's largest and highest grade resource of polyhalite. The Inferred Resource of 1.35 billion metric tonnes of 88.7% polyhalite (25.6%  $K_2SO_4$ ) was estimated from just two per cent of the York Potash Project area.

The focus of the drilling programme for the balance of calendar year 2012 will be to achieve our second goal of sufficient defined resource to underpin financing of the York Potash Project. Following the outstanding results from our first three holes, the drilling programme has been refocused to the northern onshore section of the Project area. This is due to the quality of the results from drilling in that area and also the proximity to our preferred port location of Teesside. As a result, we are close to finalising where we believe the mine head will be located, thereby fulfilling the third goal of our programme.

## DETAILED SCOPING STUDY - DEMONSTRATED THE OUTSTANDING ECONOMIC POTENTIAL OF A WORLD CLASS RESOURCE

The completion of the Detailed Scoping Study ("DSS") confirmed the technical and economic viability of the York Potash Project and was the result of over nine months of studies by expert third party consultants in the areas of shaft design, mining, ore transportation, processing, energy efficiency, infrastructure, shipping and marketing.

The DSS outlined a phased approach to development with a three year initial construction period, targeting first production at the beginning of 2017. A phased approach was used to reduce external financing requirements and optimise market entry for all products produced.

## THIS YEAR HAS BEEN ONE OF GREAT ACHIEVEMENT AND PROGRESS:

**SUCCESSFULLY** confirmed the world class potential of the York Potash Project, announcing the world's largest and highest grade resource of polyhalite

DRILLING programme for the remainder of 2012 focused to achieve our second goal of a sufficient defined resource to underpin financing of the Project

**POSITIVE** sustainable development is the only way that Sirius will develop a project

**THE LAUNCH** of the York Potash Foundation will allow the local North Yorkshire community to directly benefit from the Project

ADDED a depth of experience, leadership and knowledge to our management that will be invaluable as we rapidly develop the Project

LONG TERM GROWTH in potash demand shows no sign of slowing

SIRIUS is focused on becoming one of the world's most important and low cost potash suppliers The DSS estimated a Free on Board ("FOB") (Teesside) cash operating cost of US\$225/t<sup>1</sup> of Sulphate of Potash ("SOP") which delivers robust economics on its own. However after accounting for the potential value of the by-products of magnesium sulphate (as epsomite) and gypsum, the FOB cash operating cost of US\$65/t<sup>1</sup> of SOP would place the Project towards the bottom of the global potash cost curve.

The estimates in the DSS demonstrated that the Project delivers significant positive free cash flow and an after-tax net present value exceeding US\$6.01 billion. Importantly, as with all major capital projects, the DSS demonstrated the value creation of becoming a producer. On the day production commences, the DSS estimated that the after-tax net present value of the Project increases to over US\$11.0 billion<sup>1</sup>. This also demonstrates why we are committed to rapid development, with the value for today's shareholders significantly enhanced each day earlier we can commence production.

The Company is also pursuing a number of optimisation opportunities that have the potential to reduce our capital and operating costs, improve our access to market, and/or broaden our product offering. These include:

- **CONTINUOUS HAULAGE SYSTEM** the use of continuous haulage systems versus continuous miners with shuttle cars as selected in the DSS.
- DRY PIPELINE TRANSPORTATION transportation of dry ore for greater operational flexibility, energy savings and transport of other minerals including Muriate of Potash ("MOP") and road salt.

- PARTIAL OFF-SHORE PROCESSING

   the option to build a processing and distribution hub in the Middle East to service Asian, African and Middle Eastern markets and take advantage of lower energy costs, without a significant impact on the potential for UK supply or job creation.
- LOGISTICS OPTIMISATION utilising suitable docks and loading areas in the Teesside area to handle large Capesize vessels, providing flexibility to employ appropriately sized ships that best suit the transportation routes and customers.
- **BY-PRODUCT PROCESSING** opportunity to participate in the downstream processing of gypsum into wallboard and construction related products, and processing of magnesium sulphate into higher value magnesium based products.
- ADDITIONAL PRODUCTS sale of polyhalite as a direct application fertiliser containing the important macro-nutrients of potassium, magnesium, sulphur and calcium. The mine will also have the ability to produce road salt for the UK and European markets.

An important part of the next phase of work is to reduce the number of development options to a single construction case to be taken into the Feasibility Studies. It is our current expectation that these will be completed in phases. Our goal is to have a Pre-Feasibility Study completed by the end of 2012 and Detailed Feasibility Studies on the mine and transport system completed in the first half of 2013. This will enable the commencement of early construction on the critical path development of the shaft access system. The Detailed Feasibility Study on the remaining aspects is expected to be completed by the second half of 2013.

## DEVELOPMENT STRATEGY – PARALLEL PROCESSING AND COMMITMENT TO INNOVATION

The world's long term growth in potash requirements shows no sign of slowing and Sirius is focused on becoming one of the world's most important and low cost potash suppliers through development of the York Potash Project. The rapid development of the Project will enable Sirius to break into the heavily consolidated global potash market and continue to develop assets to increase market share and strategic importance.

The Sirius strategy of rapid growth will be achieved through parallel development of a number of work streams based on the principles of risk, reward and innovation. As demonstration of this work plan in action, a number of critical path deliverables for the York Potash Project in the past year were undertaken in parallel, for example:

- The drilling programme commenced at the same time as the DSS; and
- Environmental 12 month baseline ecological studies were commenced on very broad areas in September 2011 to create an early window for applications.

Typical development philosophy would be to undertake each of these work streams in sequence: drilling to define a resource, engineering studies to assess economics and technical development options, site selection, and then ecological studies on those sites. In sequence this would have taken almost three years, instead we will have completed all of these within 15 months – less than half the traditional time. This is a significant saving in time and has positioned Sirius to maximise shareholder value.

All cost estimates +/- 35%. Operating cost excludes royalties and maintenance capex. Net present values are after-tax real project cashflows, discount rate 8% real, maintenance capex is 3% of capex for processing and 2% for all other capex.



Innovation in the development of the York Potash Project is achieved by an unwillingness to accept "rules of thumb" or "traditional methods". Unencumbered by systems and bureaucracy, Sirius can aggressively pursue innovative solutions to the challenges involved in large-scale project development.

An example of innovation from the DSS is our underground development concept. This system uses the geology of North Yorkshire to our advantage, with decline tunnels driven by high speed tunnel boring machines to access an intermediate sinking and hoisting station. From this station, shaft boring machines will sink the vertical shafts from 700m to a depth of around 1,400m. Each of the systems and ideas in this concept are established and proven techniques from the civil tunnelling industry, combined to deliver a solution that potentially reduced construction time and capital cost. In addition, the system increased the installed hoisting capacity to over 15mtpa of ore.

These benefits are significant in themselves but the concept also delivered a low surface impact for the Project. In our view, this has the added benefit of fulfilling our goal of submitting a robust planning application which meets the environmentally sustainable objectives of the North York Moors National Park. Further engineering work continues to take this system forward by analysing in greater detail the construction schedule and technical challenges.

## POSITIVE SUSTAINABLE DEVELOPMENT – THE ONLY WAY SIRIUS WILL DEVELOP A PROJECT

The key milestone for 2013 will be receiving approvals to undertake development of the York Potash Project, specifically those needed from the North York Moors National Park. To obtain these approvals, it is necessary for Sirius to adopt and maintain the highest standards. As such, in January 2011 the Company adopted the Principles of the Sustainable Development Framework from the International Council on Metals and Mining. In addition, the Company has the following broad objectives;

- Keep the local community, authorities and their representatives informed;
- Do things the right way in the local community;
- Be transparent and open in the way we operate; and
- Conduct thorough public consultation before submitting planning applications.

One of our most exciting developments in 2012 to date was the launch of the York Potash Foundation. The Foundation will allow the local North Yorkshire community to directly benefit from the successful development and operation of the York Potash Project by providing funding of approximately £3 million per annum at Phase 1 production to local projects across a wide range of areas including community facilities, educational projects and environmental initiatives.

### FINANCE – THE CAPITAL WE USE TO DELIVER OUR STRATEGY

The Group made a loss for the year ended 31 March 2012 of £60.1 million, compared to a loss of £7.1 million in the previous year. The increase reflects an impairment charge of £57.1 million and the higher level of development activity at the York Potash Project, which was acquired during the final quarter of the last financial year. The impairment charge incurred in the year related to the write down of the Canning Basin, Adavale and Dakota Salts projects.

In January 2012 the Company successfully raised £55 million of equity capital through a placement to approximately 70 institutional investors from around the world. The transaction was more than two times oversubscribed demonstrating significant demand from quality institutions. Our decision to increase the size of the capital raising to fund the drilling programme and Feasibility Studies has been justified by the increasing volatility and short-term uncertainty subsequently seen in global markets. The Group's year end cash and cash equivalents position was £54.3 million.

The finance team, led by Jason Murray, remain focused on progressing the multiple pathways available for financing the Project. We believe we have a strong and experienced finance team and are confident of obtaining the capital the Company needs as required with the goal of minimising dilution to existing shareholders.

### THE YEAR AHEAD

Sirius has come a long way and the level of intensity will continue to escalate as we progress the York Potash Project from feasibility into construction. In the last year we have seen the world's markets come under significant pressure. These pressures will require flexibility on our approach to the ultimate make-up of the financing of the York Potash Project, but we do not believe they will be a barrier to us achieving our goals.

We are rapidly approaching a period of public consultation and increased external focus on the Company. Sirius is working with numerous local government agencies to achieve all of the necessary approvals to enable the development of the York Potash Project to proceed without unnecessary delays. To ensure an inclusive process, we have hosted numerous community and stakeholder meetings at which our team has presented and fielded questions regarding the nature and impacts of the Project. We will continue this community engagement to ensure all parties are kept up to date as our studies continue and further details are confirmed.

The focus of the Company is clearly on the flagship York Potash Project, and consistent with this focus, the Company has written down the value of the remainder of the portfolio. However, Sirius remains committed to developing a portfolio of projects and continues to move forward on others on a balanced risk and reward basis. In addition, the Company will continue to seek out and review other potash opportunities that can add value for its shareholders and align with its diversified geographical strategy. During the next 12 months when the Company's strategy to become a potash producer will be shaped, it is unlikely significant progress will be made on the portfolio assets. We believe this focus of effort will deliver the greatest value for all of our shareholders.

While acknowledging the volume of work required over the next year, I am confident that Sirius has the people with the necessary skills, determination and energy to achieve our goals. I would like to thank the entire team and our shareholders for each and everyone's support and hard work to bring us closer to the delivery of Sirius as the **NEW POTASH POWERHOUSE**.

**Chris Fraser** Managing Director and CEO



# WHY FERTILISER?

ONE OF THE FUNDAMENTAL CHALLENGES CURRENTLY FACED BY COUNTRIES AROUND THE WORLD IS THE NEED TO INCREASE AGRICULTURAL PRODUCTIVITY TO MEET DEMAND FROM A GROWING GLOBAL POPULATION.

## FERTILISER MARKET

An expanding worldwide population, in combination with rising affluence and rapid urbanisation, is driving the demand for food and more nutrient dense diets. A recent study completed by the Food and Agriculture Organization ("FAO") concluded that crop production must increase 70% by 2050 in order to address these macro shifts, highlighting that future food security is reliant on improving productivity from available arable land.

Farmer margins are a fundamental pre-requisite for increased agricultural productivity and the long term increase in grain prices (CHART 1) illustrates the incentive for farmers to improve the yield and quality of their produce.

The challenge of improving agricultural productivity to meet the food demands of the future is complicated by an ongoing reduction of available arable land per capita. The key to achieving the required yields is increased, balanced and sustainable nutrient fertilisation. This has been evidenced by the unprecedented level of global fertiliser consumption in 2011.

## **REGIONAL FERTILISER** MARKETS

The demand for increased agricultural productivity and growth in fertiliser application varies between countries and regions as a function of different underlying drivers. Factors specific to each country and region are detailed below.

## **CHINA**

The unprecedented economic growth achieved by China has led to rapid urbanisation and rising wealth of the population. Research by McKinsey & Company suggests this trend is expected to continue, with almost one billion Chinese people expected to live in metropolitan cities with the urban economy to contribute 90 per cent of GDP by 2025. Analysis of the dietary composition of the rural and urban Chinese population suggests that those living within cities consume significantly more fruit, vegetables and meat. A significant increase in Chinese agricultural productivity is required to accommodate this dietary shift, which will further drive demand and application of fertilisers to improve crop output. CHART 2 illustrates the rapid shift in Chinese dietary consumption with a sharp increase in the consumption of fruit and vegetables.

## **INDIA**

In addition to the factors impacting the demand for fertiliser in China, India is encumbered with significantly poorer soil conditions and a more rapid rate of population growth. By 2030, India's population is expected to grow by 100 million people overtaking China as the most populous country in the world. India is also expected to have one of the fastest growing economies in the world, with the International Monetary Fund ("IMF") forecasting that India will be the fifth largest economy by 2020 and the third largest by 2050.

India is the world's second largest producer of sugar, rice, wheat, fruit and vegetables with the majority being consumed domestically. In order to feed its growing population, increasing crop productivity is an urgent priority and is high on the agenda of the Indian government who have heavily subsidised nutrient fertilisers over the past 20 years. Earlier this year, the government reduced the subsidy rates for the 2012 and 2013 planting years, cutting them by 10% and 33% respectively. This may initiate an important transition to a more marketbased approach for crop and input prices, which is crucial to achieve long term agricultural productivity growth.

## CHART 1

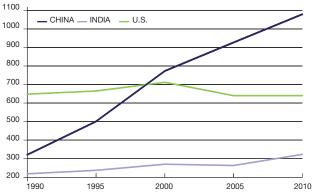
Source: FAO



#### FAO FOOD AND CEREALS PRICE INDEX 2005-2012

## **CHART 2**





COUNTRY 1990-2010 g/person/day

Source: FAO Statistic division

## BRAZIL

Brazil is the world's fifth-largest country by area and the largest in terms of arable land. Brazil is one of the few countries that can still add crop acreage, in particular by expansion in the potassium-deficient Cerrado region. The combination of these factors puts Brazil in a unique position to lead the global agricultural sector in the medium to long term, but also highlights the requirement of potash to maximise productivity from these regions. With an abundant supply of natural resources, water and land, Brazil has the opportunity to become the 'world's pantry', supplying the global markets while also providing for its own population.

## SOUTH-EAST ASIA

In addition to the economic development within China and India, there has been substantial growth within other regional Asian countries over the past decade. A significant dietary shift is also being witnessed in these countries, resulting in an increased demand for fertilisers to produce higher yielding crops to meet agricultural productivity requirements. This trend is particularly prevalent in South-East Asia, a worldleading producer of rubber and palm oil, which is constrained by a low amount of arable land per capita. As a result of these factors, there has been a 40% increase in the application of fertilisers in the region over the last two decades and this trend is expected to continue.

## AFRICA

A historical lack of investment in African agriculture has resulted in low yields, poor crop quality and insufficient food security. However, increased investment in the agricultural growth region of Sub-Saharan Africa has triggered both agricultural and economic development. This investment is a combination of both public sector, particularly in infrastructure and water supplies, and private sector investments. This early -stage development region provides an exciting opportunity for businesses to supply innovative agricultural solutions through the application of fertiliser products to improve yields, crop quality and ensure food security.

## **NORTH AMERICA**

North America remains an agricultural powerhouse producing approximately 40% of the world's corn, soybeans and wheat. These three crops account for 60% of North America's potash consumption. Biofuel crops (e.g. corn) now compete for land and boost the requirements for significantly higher yields.

Robust demand and increasing prices for agricultural commodities have resulted in unprecedented farmer margins and income in North America. The region should be able to leverage its strong cash position and best-in-class agronomic practices to cater for surging crop demand from emerging markets.

## EUROPE

Europe is a significant yet relatively mature and stable fertiliser market, which is largely supplied by local producers. In Russia, fertiliser consumption has traditionally been small, however, in recent years there has been an upward trend in application to drive production of grain crops and capitalise on the increased crop demand of neighbouring countries with rapid economic and population growth.

## **NUTRIENTS**

Nutrients are fundamental for crop growth, providing specific functions in the plant's metabolism. They are complementary to each other and a deficiency in any of them will limit crop growth and quality. Nutrients are classified by their importance to plant growth:

## **MACRO-NUTRIENTS**

**PRIMARY NUTRIENTS:** Nitrogen (N), Phosphorus (P), and Potassium (K)

#### SECONDARY NUTRIENTS:

Magnesium (Mg), Calcium (Ca), and Sulphur (S)

**POLYHALITE NUTRIENT COMPARISON** 

Due to their importance, the primary and secondary nutrients are also referred to as the six 'macro-nutrients'. Polyhalite has the chemical composition of K<sub>2</sub>SO<sub>4</sub>.MgSO<sub>4</sub>.2CaSO<sub>4</sub>.2H<sub>2</sub>O which gives Sirius the ability to become an important contributor to the supply of four of the six macro-nutrients for food production, including potassium, magnesium, calcium and sulphur. Polyhalite, as a raw ore, has the potential to be an effective fertiliser that supplies all of these four nutrients in one mineral and which conceivably provides a slower release of nutrients than more conventional sources. In addition, the four macro-nutrients can also be separated and applied to the soil in isolation or any combination to meet specific requirements.

#### POTASSIUM MAGNESIUM **SULPHUR** CALCIUM **NUTRIENT TYPE** MACRO MACRO MACRO MACRO BENEFITS Improves plants' take-Facilitates photosynthesis Assists several Supports root and leaf metabolic processes up of nitrogen and development Works synergistically with phosphorus (photosynthesis, nitrogen and potassium Strengthens plant starch, sugar and to enhance crop quality structure and resistance Increases resistance to protein formation) drought, frost, salinity and yield to damage Assists oil synthesis and diseases Assists protein and Counteracts the effect Facilitates building of Enhances plant/root vitamin synthesis for of alkali salts and protein, photosynthesis growth and resistance growth organic acids and fruit quality to cold weather CROPS Fruit Citrus fruit Rapeseed Apples Vegetables Banana Citrus Fruit Pears Soybean Cabbage Corn Tobacco Rice Coffee Sugar Cane Tobacco Sugar Oil Palm Cabbage Potato Soybeans Potato Banana Corn Wheat Tomato Теа Tomato Sweet Potato MARKETS WITH Brazil North America China India China Latin America India Latin America **HIGH NUTRIENT-**South-East Asia Sub-Saharan Africa South-East Asia India DEFICIENCY China Brazil India North America Sub-Saharan Africa

### POTASH (POTASSIUM)

Potash is the common term for a group of potassium containing minerals, the most common of which is potassium chloride. Potash is produced in only 12 countries in the world with Canada, Russia and Belarus having a combined share of 90% of the global reserves.

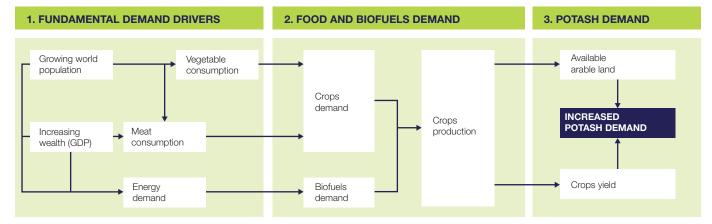
The potash market is export-oriented as most large and fast-growing markets have no or limited production capacity. Trade generally accounts for 80% of total potash demand with the largest

regional markets including China (20%), Brazil (15%), the US (15%) and India (10%). China, India, and Brazil are experiencing the most significant growth in fertiliser demand where the fundamental demand drivers of urbanisation, population and economic growth are the most prevalent.

In addition to these macro-drivers for increased agricultural productivity, China, India and Brazil have unique characteristics specific to potash, which will underpin demand for this fertiliser. China and India have historically

under-applied potash relative to the other primary nutrients of nitrogen and phosphorus, implying a significant 'catch-up potential'. Furthermore, India has no domestic source of potassium and Brazil faces productivity challenges due to its naturally potassiumdeficient tropical soils which require a disproportionately high usage of potash.

## THE KEY DRIVERS OF POTASH DEMAND



## WHY DO CROPS **NEED POTASH?**

 Yield will be materially adversely impacted after two years of no use of potash

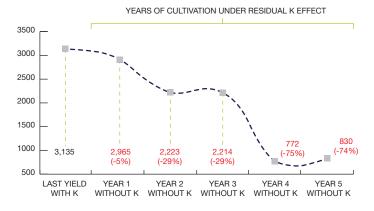
The application of potassium via potash improves plants' take-up of nitrogen and phosphorus, increasing resistance to diseases and droughts, and facilitating the process of photosynthesis. These benefits lead to increased yields, product quality and shelf life.

Of the three primary nutrients, potash has the greatest demand growth potential as illustrated by the International Fertiliser Industry Association ("IFA") data in (CHART 4).

## Potash application significantly increases crop yield and size (See CHART 3 below)

## **CHART 3**

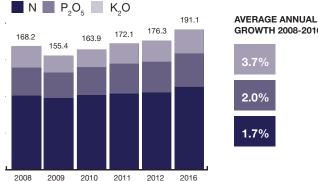
#### **GRAIN YIELD (kg/ha)**



#### Source: K+S. International Potash Institute.

## **CHART 4**

#### **GLOBAL FERTILISER DEMAND 2008-2016** MILLION TONNES OF NPK NUTRIENTS



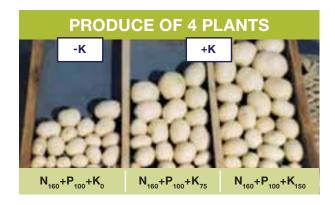
GROWTH 2008-2016



Sources: IFA Annual Conference May 2011: Sirius Minerals

## **POTASH PRODUCTS**

The most common form of potash is potassium chloride, or Muriate of Potash ("MOP"), which accounts for approximately 90% of global production. Although widely applied in all types of farming, MOP is primarily used for row crops. The balance of global production is produced as Sulphate of Potash ("SOP"), which has historically attracted a price premium to the MOP price due to its higher production costs, limited availability, and superior benefits for chloride-sensitive crop types.



BENEFITS OF SOP APPLICATION	
IMPROVED CROP GROWTH	Improves yields
HIGHER CROP QUALITY	Boosts the formation of quality parameters (yield, size, taste)
LONGER PRODUCE SHELF-LIFE	Results in better storage and transport characteristics
IMPROVED NITROGEN USE	Improves the accumulation of nitrogen
DEALS WITH CHLORIDE SENSITIVITY	Essential for chloride sensitive crops
AVAILABLE SULPHUR	As $SO_4$ , the S is readily available
NO ACIDULATION	Has no effect on soil acidity or alkalinity (pH)
HIGH SOLUBILITY	Ideal for fertigation and foliar applications
HIGHER POTASSIUM APPLICATIONS	Lowest salt index of all potash fertilisers

	SOP	MOP
CHEMICAL COMPOSITION	K <sub>2</sub> SO <sub>4</sub>	KCI
SOURCE	Occurs naturally (e.g. within polyhalite) or produced in the Mannheim Furnace process (reaction of sulphuric acid and MOP)	Occurs naturally as sylvite, sylvinite and carnallite
2011 PRODUCTION (MT)	6.4	56.0
% POTASSIUM OXIDE (K <sub>2</sub> O)	50-53%	60-62%
USAGE	Preferred where the chloride ion in MOP may be detrimental to crop quality (e.g. fruits, vegetables, tobacco)	Primarily used for row crops

## **BY-PRODUCTS**

Two by-products can be produced from processing raw polyhalite ore into sulphate of potash; magnesium sulphate and gypsum.

1.	MAGNESIUM SULPHATE (EPSOMITE)	MgSO <sub>4</sub> .7H <sub>2</sub> O
2.	GYPSUM	CaSO <sub>4</sub> .2H <sub>2</sub> O

## MAGNESIUM SULPHATE

Magnesium is one of the six macronutrients essential for crop growth and food production. It plays a vital role in the photosynthesis process without which crops would not grow. It works synergistically with both nitrogen and potassium to enhance crop quality and yield. Magnesium is also needed for all processes that require energy, such as protein and vitamin synthesis. In this context it works together with phosphorus to transfer the internal energy required for crop growth. There are three forms of magnesium that can be applied to the soil:

**THE CARBONATE FORM:** Magnesite and dolomite

THE OXIDE FORM: Magnesium oxide

**THE SULPHATE FORM:** Kieserite and epsomite, which is a hydrated magnesium sulphate.

The advantages that magnesium sulphate has over other magnesium compounds include:

- Additional provision of a small amount of another essential nutrient, sulphur; and
- High solubility. Magnesium oxides and carbonates have a very slow solubility, which means they release the magnesium at rates that are insufficient for the required crop uptake.

In addition to magnesium sulphate, further potential magnesium by-products are available to Sirius through further downstream processing and include magnesium oxide and magnesium hydroxide. Refer to page 20 onwards for additional information on these potential by-products.

## GYPSUM

Gypsum is commonly mined from natural deposits or produced synthetically as a by-product in the flue gas desulphurisation process in coal-fired power stations. Although gypsum is abundantly available in certain parts of the world, a significant quantity is too low grade to be economically processed.

Gypsum is used in a variety of applications (e.g. as a fertiliser in the agricultural industry) but it is most commonly used in the production of wallboard (also known as plasterboard) for residential or commercial construction purposes. Gypsum-based wallboard is a successful and effective building material due to its relatively low production costs and fire resistance properties. Gypsum is the main residue of the polyhalite leaching process. It only needs to be washed and dried to increase the purity to make it a readily applicable input for the wallboard industry.

## THE BY-PRODUCTS AND FURTHER POTENTIAL BY-PRODUCTS AVAILABLE TO SIRIUS FROM THE PROCESSING OF RAW POLYHALITE ORE

BY-PRODUCTS		
PRODUCT	USES	COMMENTARY
MAGNESIUM SULPHATE	<ul> <li>Highly soluble magnesium fertiliser</li> <li>Feedstock for downstream magnesium products (see further by-products below)</li> </ul>	The palm oil industry in South-East Asia is the largest consumer
GYPSUM	<ul> <li>Wallboard production</li> <li>Additive to cement</li> <li>Agricultural fertiliser</li> </ul>	<ul> <li>Market growth in wallboard and cement driven by increased demand from the construction industry in emerging markets such as: Asia (India and China), Brazil and Africa</li> <li>The importance of gypsum as a calcium- based fertiliser is increasingly recognised within the fertiliser industry. Calcium is particularly important for the yield, quality and storage capacity of high-value crops such as fruit and vegetables</li> </ul>

PRODUCT	USES	COMMENTARY
MAGNESIUM OXIDE	• Refractory grades: furnace lining in steel/cement	<ul><li>Demand shift to higher grade refractories</li><li>From 2014 a potential shortage in high</li></ul>
	<ul> <li>Chemical grades: environmental, agriculture and hydrometallurgical processing</li> </ul>	refractory grade magnesia is expected
MAGNESIUM HYDROXIDE• Environmental uses, primarily in water treatment and flue gas desulphurisation	Environmental uses, primarily	Rapidly growing market
	Small high value segment	
	<ul> <li>Flame retardant applications</li> </ul>	

#### **INFORMATION SOURCES**

FERTILISER MARKET: Food and Agriculture Organization McKinsey & Co. International Monetary Fund Government of India NUTRIENTS: International Fertiliser Industry Association Fertecon "Potash Report 2012" The Sulphur Institute 2012 BY-PRODUCTS: Roskill Freedonia Fertiliser Week World Steel Organisation





OPERATIONS REPORT

# HIGHLIGHTS FROM THE YORK POTASH PROJECT

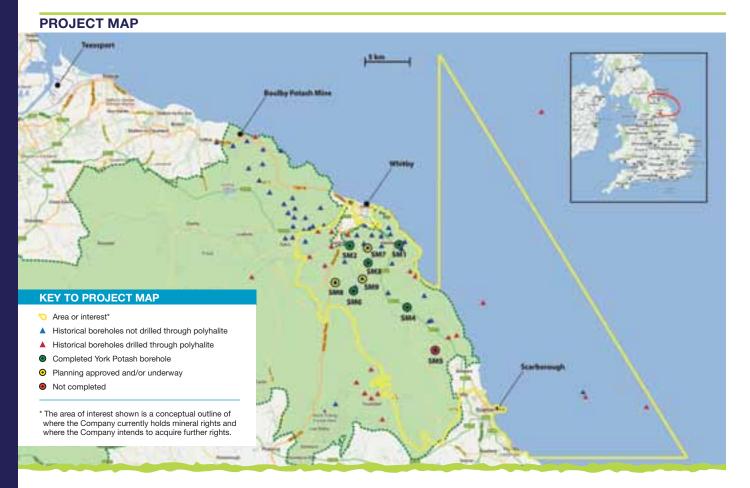
COMPLETED DRILLING AND ANALYSIS FOR THREE BOREHOLES, CONFIRMING THE EXTENT AND HIGH QUALITY NATURE OF THE POLYHALITE

COMPLETION OF THE DETAILED SCOPING STUDY

MAIDEN NI 43-101 COMPLIANT RESOURCE ANNOUNCED AT 1.35BN TONNES OF 88.7% GRADE POLYHALITE – THE LARGEST AND HIGHEST GRADE IN THE WORLD

MINERAL RIGHTS SECURED OVER 85% OF THE PROJECT AREA

## THE YORK POTASH PROJECT



## DEVELOPMENT

In July 2011 a concept study was initiated on the York Potash Project ("YPP" or the "Project") to analyse and test the various options and development alternatives available via the appointment of consultants across different fields of expertise. In April 2012, the Company announced the completion of the Detailed Scoping Study ("DSS") which summarised the results of this analysis and confirmed the technical and economic viability of YPP.

The DSS highlighted that YPP has the potential to be the largest low cost SOP mine in the world and towards the bottom of the global potash cost curve. The completion of the DSS enables the Company to rapidly progress to Feasibility Studies which will further define and de-risk the Project in preparation for initial financing. A modular and phased approach to development will provide operational and financing flexibility following an initial three-year construction period, targeting first production in early 2017.

The current strategy is to develop YPP in two phases with Phase 1 producing 5.0 mtpa of polyhalite ore (1.4 mtpa of SOP) at a capital cost of US\$2.7 billion<sup>1</sup>. The Phase 2 expansion will increase production to 15.0 mtpa of polyhalite ore (4.1 mtpa of SOP) by 2024 at a capital cost of US\$3.3 billion<sup>1</sup>, which is expected to be funded from internally generated cashflows. YPP has robust cash FOB operating costs at US\$225/t<sup>1</sup> of SOP and US\$65/t<sup>1</sup> of SOP after by-product credits for magnesium sulphate and gypsum. These capital and operating cost metrics deliver significant positive cashflow in the second year of production and a project after-tax net present value of over US\$6.0 billion<sup>1</sup>. Significant opportunities exist to optimise YPP further and these will be investigated as part of the Feasibility Studies.

As illustrated in the table on page 23, the Project has leading capital expenditure and operating expenditure potential compared to a typical MOP greenfields mine.

The DSS also highlighted the low impact sustainable development available and the potential for the Project to become one of North Yorkshire's largest employers with the creation of over 1,000 direct jobs at full production.

 +/- 35% accuracy. Operating costs exclude royalties and sustaining capital expenditure. Net present values are after-tax real project cash flows, discount rate 8% real, maintenance capex 3% of capex for processing and 2% for all other capex.

YORK POTASH PROJECT ECONOMICS			
	TYPICAL GREENFIELDS MINE MOP (KCI) <sup>1</sup>	YPP POLYHALITE SOP (K₂SO₄) ⁴	
TONNES OF POTASH PRODUCTS	2 to 3 mtpa MOP	<ul> <li>4.1 mtpa SOP</li> <li>5.3 mtpa SOP equivalent <sup>2</sup></li> <li>6.5 mtpa MOP equivalent <sup>3</sup></li> </ul>	
CAPEX PER TONNE OF CAPACITY	~US\$1,000 to US\$1,800/t MOP	US\$1,458/t of SOP US\$1,130/t SOP equivalent <sup>2</sup> US\$924/t MOP equivalent <sup>3</sup>	
YEARS TO PRODUCTION	2 – 6 years	~ 3 years	
FOB OPEX/TONNE	US\$120/t to US\$190/t MOP	US\$65/t SOP after by-products ⁵ US\$225/t SOP before by-products ⁵	

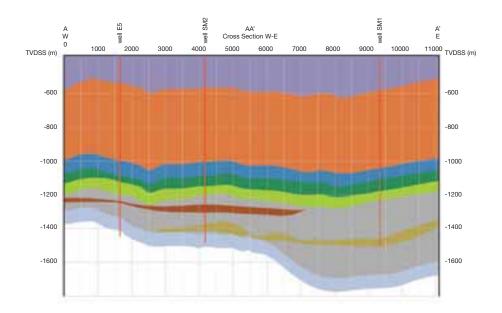
## RESOURCE

In June 2012, the maiden NI 43-101 compliant Inferred Resource was announced at 1.35 billion tonnes of 88.7% polyhalite, making it the largest and highest grade polyhalite resource in the world. The Inferred Resource was derived from just the initial three drill holes, from an area representing only two per cent of the project area. This compares to the January 2011 JORC Exploration Target of between 3.3 and 6.0 billion tonnes of 67% to 94% polyhalite for the entire project area. With only 690 million metric tonnes of mineable polyhalite ore required to deliver 50 years of production under the DSS, the maiden Inferred Resource demonstrates the scale and significance of this world-class deposit.

The drilling programme is now focused on resource definition to underpin the financing of YPP. The Company expects that the resource estimate will significantly increase in size and confidence level as the ore body is upgraded into the Indicated and Measured Resource categories.

### NOTES:

- 1. Source: CRU, market reports and company announcements.
- SOP equivalent includes value of by-products of US\$160/t on an SOP equivalent basis (assuming a US\$550/t flat real SOP price). Does not include any value for rock salt.
- MOP equivalent includes value of by-products of US\$160/t and assuming a flat real MOP price of US\$450/t. Does not include any value for rock salt.
- 4. Phase 2 capacity of 15mtpa polyhalite ore.
- 5. Excluding royalties and sustaining
- capital expenditure.





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## YORK POTASH PROJECT DEPOSIT CROSS-SECTION

	HECCONCE			
SEAM	WEIGHTED AVERAGE THICKNESS (m)	POLYHALITE MATERIAL (mt)	AVERAGE POLYHALITE GRADE (%)	CONTAINED K₂SO₄ (mt)
SHELF	25.12	628.58	87.73%	159.31
BASIN	27.05	717.25	89.57%	185.60
TOTAL		1,345.83	88.71%	344.91

INFERRED MINERAL RESOURCE

1. Reductions of 15% for the Shelf Seam and 7.5% for the Basin Seam have been made for barren zones and tectonic impact.

### **MINERAL RIGHTS**

Minerals in the UK, other than hydrocarbons and gold (which belong to the government), are generally owned by the freehold owner of the surface land unless a previous owner excluded them from a sale of the land.

In order to extract the minerals, Sirius has had to gain the agreement of the mineral rights owner for extraction of potash and other evaporate minerals. The offshore mineral rights over an area of 525 km<sup>2</sup> are owned by The Crown Estate with whom Sirius has agreed an option to lease. An onshore agreement has now been reached with the majority of large owners and small local owners for between 70 and 140 years.

With mineral rights secured for over 88% of the project area of 808 km<sup>2</sup>, the Company has considerable choice in locating the best position for a mine head whose final location will be subject to environmental, geological, topographical, and economic considerations.

### PLANNING

The key planning consents the Company will need to obtain in order to undertake the development of the Project are summarised as follows.

#### **Offshore mineral extraction**

The Marine Management Organisation ("MMO") is the determining authority for a Marine Licence for offshore mineral extraction. An Environmental Impact Assessment ("EIA") Screening Request has been submitted to the MMO providing evidence that an EIA is not required, and a formal response was received which concurs with the assumption that the proposal is not an EIA development. A licence application will be submitted during the second half of 2012. The MMO then has a guideline period of eight weeks to consider the application and issue the Company with a Marine Licence for Mineral Extraction.

## Onshore underground extraction

The onshore underground extraction and mine head location will be in The North York Moors National Park and therefore the North York Moors National Park Authority ("NPA") will be the determining authority. The Company has signed a Planning Performance Agreement ("PPA") with the NPA. This agreement sets out protocols for both the Company and the NPA until planning permission is submitted and timeframes incorporating an agreed maximum 16 week determination period. It commits both sides to prompt action in supplying information and dealing with that information once it has been submitted, and allows the NPA to charge for such promptness. It is the intention that both the planning application and the EIA will be submitted to the NPA by the end of 2012. It is anticipated that a decision will be received in the first half of 2013.

## **Onshore buried pipeline**

A Development Consent Order under the Planning Act 2008 is required from the National Infrastructure Directorate ("NID"), which was formerly known as the Infrastructure Planning Commission, for the proposed pipeline. The NID has provided its Screening Opinion on the need for an EIA and it reflects the Company's view that the pipeline is not an EIA development. Studies will be undertaken regardless to establish the environmental effects of the slurry pipeline proposals and to determine the mitigation that can be implemented in order to reduce effects to an acceptable level.

A detailed consultation exercise with the public and statutory consultees is required prior to submission of the application to the NID. This will mean that all issues should have been resolved by the time of submission. Compulsory purchase powers are available to the Company if they are needed. However, the Company aspires to obtain voluntary agreements along the whole length of the route.

The decision making process under the NID route allows for a six month period of consideration by the NID after a 28 day acceptance period. Once the NID has made a recommendation, the Secretary of State has three months in which to make the final decision. This time period applies to all projects that come under the jurisdiction of the NID.

## **Processing plant facility**

Planning permission will be required from Redcar & Cleveland Borough Council for the processing plant facility at the Port of Teesside. It is intended to submit a planning application in the fourth quarter of 2012 that seeks outline planning permission in order to establish the principle of development and acceptability of the proposals within wide parameters. This application will need to be subject to an EIA because the development meets the description of the first Schedule of the appropriate EIA Regulations and so a joint Screening and Scoping Opinion request will be made as soon as the final site has been selected.

## **Progress to date**

Over the last 12 months, the York Potash Project has applied for planning permission for eight exploration boreholes and received implementable consents for all of them. The team has also facilitated the early commencement of the seismic exploration operation.

In relation to the four major planning applications, all planning approvals are being progressed concurrently with the aim of being completed in the first half of 2013. Teams of consultants have been appointed to support the forthcoming applications and two Screening Opinions relating to EIAs have already been received.

The PPA which has been entered into by the Company and the NPA is an important guideline document as it sets out a timeframe within which various tasks must be completed. Sirius is on track with architects appointed and briefed by the planning team to contribute to the stated aim of minimising the impact on the fabric of the National Park.

## **OTHER PROJECTS**



## NORTH DAKOTA – WILLISTON BASIN

Following a drilling programme from last year, Sirius made the decision to evaluate the area for additional, viable mineral targets. This allowed for a greater area of consideration relating to exploration activities. Sirius, in conjunction with its partners North Rim Exploration and Boyd PetroSearch, completed two regional studies: one for sylvinite and the other for carnallite within the North Dakota portion of the Williston Basin. Due to the focus on York Potash, no further work is planned in the near future in North Dakota.



## **AUSTRALIA – ADAVALE BASIN**

Significant progress has been made this past year with regards to the definition and refinement of the opportunities that may exist within Sirius' Adavale Project in Queensland, Australia. Major activities for the past year include developing a primary technical and economic model for the Adavale Synergy Strategy and completion of a regional review of the entire Adavale Basin. Due to the focus on York Potash, no further work is planned in the near future in Adavale Basin. Work will continue developing the intellectual property, in relation to these tenements, on waste water disposal, carbon sequestration, and solar pond efficiency.



## **AUSTRALIA – CANNING BASIN**

Sirius and Boyd PetroSearch completed a full review of the Rio Tinto seismic data concluding that the Mallowa Salts are of significant thickness and adequate depths for exploration. This initiative provided Sirius with basic regional characteristics of the salt layer within the Canning Basin Project area in Western Australia. Due to the focus on York Potash, no further work is planned in the near future on Canning Basin.

## **SUSTAINABLE** DEVELOPMENT

# INTERNATIONAL COUNCIL ON MINING & METALS SUSTAINABLE DEVELOPMENT PRINCIPLES

### **PRINCIPLE 1**

IMPLEMENT AND MAINTAIN ETHICAL BUSINESS PRACTICES AND SOUND SYSTEMS OF CORPORATE GOVERNANCE

#### **PRINCIPLE 2**

INTEGRATE SUSTAINABLE DEVELOPMENT CONSIDERATIONS WITHIN THE CORPORATE DECISION-MAKING PROCESS

## **PRINCIPLE 3**

UPHOLD FUNDAMENTAL HUMAN RIGHTS AND RESPECT CULTURES, CUSTOMS AND VALUES IN DEALING WITH EMPLOYEES AND OTHERS WHO ARE AFFECTED BY OUR ACTIVITIES

#### **PRINCIPLE 4**

IMPLEMENT RISK MANAGEMENT STRATEGIES BASED ON VALID DATA AND SOUND SCIENCE

#### PRINCIPLE 5 SEEK CONTINUAL IMPROVEMENT OF OUR HEALTH AND SAFETY PERFORMANCE

#### **PRINCIPLE 6**

SEEK CONTINUAL IMPROVEMENT OF OUR ENVIRONMENTAL PERFORMANCE

#### **PRINCIPLE 7**

CONTRIBUTE TO CONSERVATION OF BIODIVERSITY AND INTEGRATED APPROACHES TO LAND USE PLANNING

### **PRINCIPLE 8**

FACILITATE AND ENCOURAGE RESPONSIBLE PRODUCT DESIGN, USE, RE-USE, RECYCLING AND DISPOSAL OF OUR PRODUCTS

### **PRINCIPLE 9**

CONTRIBUTE TO THE SOCIAL, ECONOMIC AND INSTITUTIONAL DEVELOPMENT OF THE COMMUNITIES IN WHICH WE OPERATE

#### **PRINCIPLE 10**

IMPLEMENT EFFECTIVE AND TRANSPARENT ENGAGEMENT, COMMUNICATION AND INDEPENDENTLY VERIFIED REPORTING ARRANGEMENTS WITH OUR STAKEHOLDERS

## **OVERVIEW**

Sirius is committed to sustainable development and a robust approach to Corporate Social Responsibility ("CSR"). Current CSR initiatives are focused on the Company's flagship project – the York Potash Project. In terms of its operations and impact on the community, YPP is still in its temporary exploration phase. However, the Company has set out a positive approach to working in the local community in a way that will continue throughout its planned rapid growth.

At a strategic level, the Company has adopted the ten sustainability principles set out by the International Council on Mining and Metals ("ICMM"). These principles provide a framework that will continue to guide the Company in its operations and decision making process.

The commitment to a positive form of corporate governance goes beyond these broad principles. In relation to YPP, as it is a project of local, national and international significance, the Company has also adopted the following broad objectives:

- Keep the local community, authorities and their representatives informed;
- Do things the right way in the local community;
- Be transparent and open in the way we operate; and
- Conduct thorough public consultation before any planning application is submitted.

#### **ZERO HARM**

Sirius is committed to conducting activities in a manner that increases shareholder value through compliance with and outperformance of regulatory obligations in relation to occupational health and safety. Sirius has therefore adopted the principle of Zero Harm as a core value.

The Zero Harm policy applies throughout the business and will be the first consideration in all of the Company's operations. Sirius subscribes to the belief that no workrelated injury is acceptable and that there must be continued and on-going improvements in the preventative areas of health and safety. This objective requires considerable commitment, effort and resources to ensure that it is implemented and that there is a continual comprehensive review and improvement process in place. During the financial year, there has been significant attention paid to health and safety and a number of key targets are detailed below.

Sirius has adopted the following value statement that is used not just in health and safety but in every aspect of the Company's operations:

## "Do the right things and do them right"

This statement covers all aspects of the Project from exploration through to operation and with a commitment that Sirius will ensure the highest operational standards are met throughout the business. In line with this statement, and the commitment to Zero Harm, the Company has:

 Committed to comply with and outperform all statutory requirements with regard to health, safety, environment and quality; and  Committed to providing the leadership, systems, tools, training and development for the workforce to ensure a safe and efficient working environment.

In July 2012 the Company also appointed a Health, Safety and Environmental Manager.

## Staff training

All YPP personnel that visit drilling sites have been provided with rig inductions for both the drilling rigs commissioned by the Company. This has been overseen by the drilling contractor's site supervisor and is part of the safety culture that Sirius is instilling.

The Company has been active in other areas of health and safety training, from training employees on how to use the forklift truck in the drilling core stores to training on driving the Company's fleet of four wheel drive vehicles.

Sirius has also commissioned a number of appropriate and formal training courses to address the perceived key risk areas faced by the Company. These include:

- MANUAL HANDLING: All staff likely to be involved in physical activities attended a 'Manual handling, principles and application' course.
- **RISK ASSESSMENT:** A 'Risk Assessment and Hazard Identification' course was provided to YPP personnel.

## **Drilling rig safety**

In the financial year, a significant proportion of the physical operations associated with YPP have been conducted by the Company's drilling contractor. The drilling contractor is required to abide by the Company's policy of Zero Harm and adopt the necessary procedures to implement this policy. The contractor has therefore proactively engaged in a campaign to instil a robust health and safety culture within the contractor's workforce. The programme to increase awareness of a continual safety improvement culture has included:

- **DEDICATED STAFF** The drilling contractor has employed a new Health & Safety Manager to oversee all of its operations. At drilling sites there are three dedicated safety representatives per drilling rig (one for each shift) who are provided with financial incentives to oversee safety matters and feedback where improvements can be made. These representatives are being put through an Institute of Occupational Safety and Health ("IOSH") managing safety course. There is also an ongoing process of ensuring that the rig crews are put through a behavioural safety course.
- **REGULAR SAFETY INSPECTIONS** These are made by the YPP team, in conjunction with the contractor, to assess site access, future and ongoing operations.
- PERFORMANCE REVIEWS AND REWARDS – Rewards are offered for meeting safety targets. This may include small gifts to individuals or providing specialist catering events onsite to reward staff for achieving certain health and safety targets.

During the financial year we recognise that safety performance to date on the exploration drilling sites has been below industry standard with three lost time incidents resulting in seven days lost. We will not be satisfied until we reach our target of Zero Harm. There is an on-going requirement from the Company to ensure continuous improvement amongst its contractors. This has resulted in 'near misses' being regularly recorded to aid this process, which in itself is an important part of health and safety procedures as near misses are the incidents less likely to be reported.

## **DRILLING OPERATIONS**

The Company's most visible presence in the local community has been through its temporary drilling operations at YPP. As part of Sirius's commitment to minimise the impact of its work, the locations of the exploration boreholes have been selected in areas that cause as little impact to the local communities as possible.

Significant effort has been applied to ensure that drill sites are selected in areas that: do not damage sensitive or protected landscapes or environments; where they are likely to cause the least possible disturbance for local communities, and; where they are able to be restored to their original (or even an improved) condition. Drilling sites at the YPP go through the following selection procedure:

- A. SITE ASSESSMENT Conducted by land and geological teams, including an initial assessment of planning, ecological, environmental, archaeological, highways, visual impact and noise considerations.
- **B. PLANNING –** After site access and compensation is agreed a full planning application is submitted including specialist reports on considerations detailed in point A. Any pre-commencement planning conditions are then addressed.
- C. SITE PREPARATION A survey of site and surrounding roads is conducted before any activity starts. The site is then fenced and top and sub soils are removed and stored in accordance with the Good Practice Guide for handling soils, as published by the Department of Environment, Food and Rural Affairs ("DEFRA") in April 2000.

- D. DRILLING WORKS Conducted in accordance with our Drilling Method Statement, as agreed in advance with the Environment Agency.
- E. FULL SITE RESTORATION Once completed the boreholes are filled with cement and capped, the concrete platforms are removed and the sub and top soils are replaced and contoured. The land is then replanted, fences and gates are installed or replaced and any damage to local roads caused by site the traffic is repaired.

## SM1 – Hawsker

Situated on an agricultural field southeast of Hawsker, SM1 drilling was completed on 29 October 2011. An improved access point and gate was installed for the drilling period and was left in place as an agricultural entrance after drilling work was completed.

## SM2 – Howlett Hall

Situated on an agricultural field southeast of Ugglebarnby, SM2 drilling was completed on 29 January 2012. Due to a number of fluid loss zones encountered during drilling the works took approximately 30 days longer than expected. As a result, the Company made a donation of £500 towards the Annual Parish Show by way of an apology to local residents for any inconvenience. During operations at SM2 a concern was raised by a Whitby Town Councillor at the Council Meeting on 12 September 2012. It related to the impact of the rig lighting overnight and specifically its effect on a local resident living down the valley to the north of the site. After consultation with the drilling rig supervisor, the Company arranged for lighting rigs to be moved and orientated at different angles and specifically pointing the main lighting rigs uphill towards the south of the site.





Images: (above) SM1 with coring rig on site and (above right) site restored.

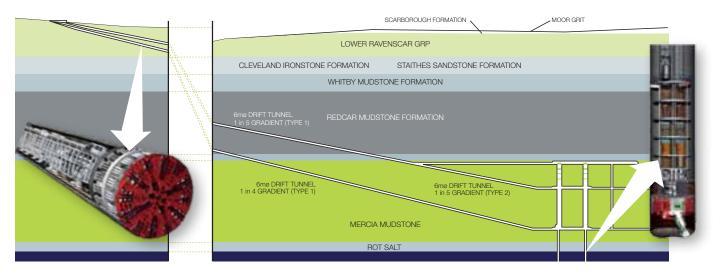




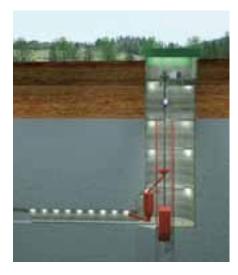
Images: (above) SM2 with coring rig on site and (above right) site restored, pending hedge replanting in Autumn 2012.

## **OTHER SITES**

The Company is engaged in drilling works at a number of other drilling sites that will be fully restored in the financial year 2012-2013. A number of improvements are being made as part of this work. This includes installing best practice passing places on Raikes Lane (SM3) as a long term benefit to road safety and an agreement with the NPA to leave a section of concrete hard standing at SM4 to periodically accommodate a mobile visitor centre for the Hawk and Owl Trust, which manages the nearby Fylingdales Moor. Following further feedback from a local resident, the Company's drilling contractors have also completed a number of night time tests on rig lighting. As a result, less lighting is now used at all sites at night, a reduction of 8,000 watts of lighting.



Tunnel boring machines used construct the drift tunnels. Mineshafts sunk from approximately 500-700m to polyhalite deposit using shaft boring machines



Sunken head frame concept.

## APPROACH TO MINE HEAD DESIGN

Central to the Company's impact on the local environment and community will be its approach to the design of a future mine head and required surface infrastructure. This is particularly relevant given the location of the resources which are beneath the North York Moors National Park. Sirius will be leading the way and setting new standards in how a mining operation is proposed through:

- Conducting mineral processing away from the mine head area, outside of the National Park.
- Using a buried pipeline to transport ore away from the National Park, which will be unnoticeable to people once installed and the land restored.
- Innovative sunken/underground mine head designs to minimise the visual impact and surface area required.

The Company has developed the concepts of sub-surface or sunken mine shaft head frames. The top of the shafts would therefore either be located below ground at between 500-700 metres and accessed two parallel drift tunnels or be sunken below ground level and covered in an appropriately designed building. This work has been on-going throughout the year and was publicly announced in the Company's DSS on 30 April 2012. These approaches would have a number benefits for the local area when compared to a conventional solution because they would reduce the surface impact by removing the highly visible head frames from the landscape.

## **EDUCATION AND SKILLS**

The Company has been active in the educational skills sector throughout the financial year, with a view to both encourage interest in the mine development proposals amongst younger people and the development of the kind of skills a future operation will require. Work in this area has included:

 PROFILE – Working closely with Scarborough Borough Council to raise awareness of YPP and the future employment opportunities that will exist. In addition to meetings with local schools, colleges and universities, this has included playing an active role in a joint event with representatives from the offshore wind industry (organised by the Scarborough Borough Council) for members of the local educational and training establishments. • ENGINEERING WEEK – In October 2011 the Company provided sponsorship and had a display at the Scarborough Engineering Week. The event was targeted at local school children and was organised by a local engineering business to showcase and encourage careers in the engineering sector. The Company also committed to build on the success of this event and provide sponsorship for the 2012 event.

### • DEDICATED PERSONNEL -

Recognising the importance of having relationships with the educational sector from an early stage, the Company has appointed an 'Education and Skills Manager'. The role provides a point of contact between the Company and local educational establishments as well as someone to coordinate future training and skills requirements.

 SITE TOURS – During the year a number of guided tours of the drilling rig sites have been held to help inform local groups on aspects of the drilling and local geology. Tours have been provided for local landowners, the North East Yorkshire Geological Trust members (see image above right) and students at Fyling Hall School amongst others.

## OTHER COMMUNITY INITIATIVES

The Company has engaged in a number of other community initiatives. Much of this has revolved around keeping local stakeholders informed of developments at the Project and has resulted in staff attending over 25 local Parish Council or Area Parish meetings within the area of interest. This included at least one meeting at each of the nine town or Parish Councils within this area. There have also been meetings and presentations arranged for other local interest groups such as Rotary Clubs and Chambers of Commerce.



Local landowners within the YPP area are key stakeholders in the overall Project and have been kept informed at regular intervals through letters, informal events or meetings and conversations with the Company's local liaison officers.

The Company has also committed funds to local sponsorship including the Whitby Regatta, one of the biggest local events, after a public request from organisers to support the popular event in order to keep it running. Other smaller sponsorships have been offered to the North East Yorkshire Geological Trust, Scarborough Rugby Club and Whitby Rugby Club U15s.

In line with the Company's commitment to keeping local people informed of developments and proposals at YPP it issues its community newsletter 'Update' which is distributed widely throughout the local area. The Company and YPP also maintain a regularly updated website to provide information on the Project and a dedicated email address and community helpline to allow people to relay comments or concerns.

# THE YORK POTASH FOUNDATION

The York Potash Foundation has been set up to offer a local legacy. The details of the Foundation were launched publicly on 30 May 2012.

The stated objectives of the Foundation are to:

- Advance education, including the support of projects and training that benefit people from the local area by enhancing their skills;
- Promote the general health and wellbeing of the community;
- Advance environmental protection and improvement, including enhancing the local landscape;
- Advance citizenship and community development, including the improvement of community facilities to bring together people in the local area; and
- Relieve those in financial hardship, particularly the long term unemployed, by helping them to gain skills.

The Foundation will be an independent organisation, limited by guarantee and separate from Sirius and YPP. The Company will enter into a formal binding contract between the Foundation to see it benefit from a 0.5% annual royalty to ensure the longevity of funding. On the assumptions used in the DSS this amounts to an annual payment of approximately £3 million at Phase 1 production levels and approximately £9 million at Phase 2 production levels.

The Foundation will be seeking to register as a charity to ensure the funding is used for the Foundation's objectives (as set out above). It will be run by Trustees, three of whom will be appointed by the Company and four of whom will be appointed by two independent members.

# PRINCIPAL RISKS AND UNCERTAINTIES

## **PRINCIPAL RISKS AND UNCERTAINTIES**

## KEY PERFORMANCE INDICATORS

The Board monitors spending against the budget through monthly reporting and meetings every two months. At the current stage of development of the Company's projects, there are few meaningful key performance indicators or comparatives to prior years.

Progress towards the development of YPP will be tracked against milestones such as the announcement of resource and reserve figures and completion of the feasibility and other engineering and environmental studies, and in due course receiving planning consent for the mine. Resource estimates have been prepared to NI 43-101 standards.

In addition, the Company monitors its share price performance relative to the market and its peers. Since last year's annual report the Company's share price strengthened very significantly in November before losing some of these gains during 2012.

# The principal risks currently identified for the Company are as follows:

## EXPLORATION, DEVELOPMENT AND PRODUCTION RISK

Exploration, development and production risks are inherent in the mining industry. It is impossible to remove all risks or to establish for certain the true extent of the size and grade of an ore body. However, experience developed over many years by the industry has established methods for assessing, evaluating and reducing the risks inherent in a project. The Company, with the assistance of experts in their respective fields, is currently applying these methods to the geological, mining, processing, infrastructure, environmental, construction and other aspects of its projects, the most advanced of which is YPP.

In June 2012 the Company announced the maiden Inferred Resource for YPP following an exploration drilling programme to assess and quantify the extent of the potash resources, and to bring them to a level of certainty categorised according to international standards universally accepted within the mining industry. Exploration drilling continues at YPP and resource figures will be updated in both quantum and resource category during the coming period. Future exploration drilling may show less consistency in ore body than initial and historical drill holes. Should this occur, the Company will extend the drilling programme to prove sufficient reserves, however, the area of interest is so significant, that any localised inconsistency in the deposit is expected to be insignificant.

Other aspects of the development risk of YPP will be assessed during a sequence of ever more detailed and accurate engineering studies of which the DSS announced in April 2012 was the first stage. Following the positive results of this study, the Company has now commenced Feasibility Studies on the Project before moving to construction. The Feasibility Studies will incorporate a wide range of other studies performed both by suitably qualified third parties and completed internally which will cover all aspects of the Project including resources, environment, infrastructure, planning, mining, processing, infrastructure and markets. There is no certainty that these studies will be positive or that the Project will be developed into a commercial mining operation.

YPP may experience construction and schedule delays due to unforeseen technical issues. Detailed planning by the management team and external consultants will be completed prior to project development through the Feasibility Studies to de-risk the Project before construction commences. Management continue to pursue all acceleration options available for YPP to reduce the time required to reach first production. Following the mine design to be completed as part of the Feasibility Studies, the Company may experience unexpectedly difficult ground conditions in the construction of the mine. Detailed rock mechanics testing has already commenced, together with drilling and seismic work to establish ground conditions with some certainty. Mining at the depths required for the YPP is not uncommon and the Company is undertaking detailed analysis of various mining methods to further de-risk this element.

The proposed processing route of polyhalite into SOP has not been previously used on a commercial scale. Processing consultants K-Utec have an existing pilot plant facility which is being adapted for testing the YPP polyhalite as part of the Feasibility Studies. K-Utec has experience in the testing of polyhalite through various process routes, which the Company will utilise to provide development flexibility. There is no certainty that a technically and economically successful process route will be identified, but initial testwork has been positive.

The two primary by-products from the production process, magnesium sulphate and gypsum, may require further downstream processing into value added products for sale. The Company has identified possible economic downstream processing options and will engage expert consultants during the Feasibility Studies to prove the opportunities for wallboard manufacturing from gypsum and the production of high value magnesium products from magnesium sulphate.

### **MINERAL TITLE RISK**

There is often an element of uncertainty about the validity of mineral titles as they rely on the quality of State record keeping over many years, even centuries. However, the Company's projects are all in countries with sophisticated land registry systems so that the risk of the Company's mineral and exploration rights not being valid is low.

In the UK, mineral rights and surface rights do not always go together and the land registry system is focused on surface rights rather than mineral rights. This introduces an additional level of uncertainty and the Company makes considerable efforts to confirm mineral rights ownership before entering into option and exploration agreements with the mineral rights owners. Finance may not be available if insufficient mineral rights are held. At YPP the Company has entered into option agreements with a large number of minerals rights owners under which the Company may acquire the mineral rights and conduct exploration and mining activities. The Company has five years to exercise the options, extendable by three years in certain circumstances, and thereafter 70 years to extract the minerals, and the majority are extendable by a further 70 years at the Company's election.

The existing contracted mineral rights position is over 85% of the YPP project area. Negotiations have commenced for multiple mine surface and processing sites with approval preparation currently ongoing. The Company is also able to modify the mine plan due to the large size of the area of interest.

### **PERMITTING RISK**

A large number of permits and licences are required to bring a mining operation successfully into production. These permits and licences vary countryby-country and relate to conducting exploration work, construction, traffic, environmental, operations and a host of other areas. The nature of the process means that permits and licences can only be applied for when the development of a project reaches the stage that the particular permit or licence is required. It is not possible to say that all such licences will be obtained when they are needed, but the Company and its specialist consultants will continue to take all possible actions to be successful in its applications.

The significance of YPP from an employment and economic perspective provides a compelling case in favour of a positive permitting outcome. The Company has already received a significant level of local, regional and national support for the Project and will continue ongoing engagement with public, local and regional groups to ensure full understanding of the Project's benefits. The Company does have the ability to go to appeal if any of the initial planning applications are refused.

There is also a risk that access may not be granted for key infrastructure for the development of YPP, namely the port, mine head and pipeline. The Company has a number of options available for the mine head and port and is in negotiations with relevant counterparties. Additionally, the Company has been granted access to the pipeline route, with negotiations to commence and planning to run under NID with compulsory powers.

### **COMMODITY PRICE RISK**

There is a risk that the potash price could fall to levels at which it would not be economically viable to develop any or all of the Company's projects. The potash price has fluctuated over recent years and can be expected to do so over the coming years as well. While the Company does not expect the potash price to decline to levels at which its projects are not viable, there is a risk that this could occur either before construction of the Project, or once it is in operation.

The Company's research team continues to analyse the potash market and current studies forecast continued growth in world demand for potash and a positive price outlook over the medium-term. SOP in particular has large demand growth potential globally, however the price does fluctuate and is affected by the economics of various regions and supply and demand dynamics. There is a risk that the premium currently held by SOP over MOP will be reduced as a result of YPP volumes coming on market. According to the DSS, YPP is expected to be towards the bottom of the potash cost curve, and therefore potentially buffered from periodic market fluctuations. In addition, as SOP is a premium product, it is expected at certain pricing levels to replace some current MOP demand. As a result the Company views the MOP price as an absolute minimum for the SOP price. Where appropriate, the Company will seek offtake agreements with major customers to reduce market and price risk exposure.

The Company will also be exposed to price fluctuations for the by-products magnesium sulphate and gypsum, and the prices for any further downstream processed products. There is the risk that these prices and values may be lower than forecast. Under the recently completed DSS, by-products comprised approximately 20% of total revenue, meaning that if by-product prices were to be 50% less than forecast, the Project would remain economically viable. The Company will seek potential strategic partnerships and/or offtake agreements with existing industry incumbents to de-risk the by-product revenue streams and secure the value of the by-products.



### LIQUIDITY RISK

There is a risk that the Company will have insufficient funds to develop its projects. To successfully develop any of its projects the Company will need to raise additional funds and there is no assurance that adequate funds will be available when they are required to finance the Company's activities. However, the directors of the Company have a reasonable expectation that additional funds will be secured when they are required. The Company has a strong Board and management team with extensive experience in financing large multi-billion dollar projects.

There is also the risk that capital and operating costs as outlined in the YPP DSS are significantly underestimated, further increasing funding requirements. Completion of the Feasibility Studies will reduce this uncertainty with cost reduction and optimisation strategies currently being investigated.

The Company has been successful in raising funds in the recent past and intends to raise a combination of debt and equity in the future to provide funding for development and initial operations for YPP.

### **CURRENCY RISK**

At present the Company raises funds in sterling and the considerable majority of its expenditure is also in sterling. However, the Company expects an increasing proportion of its expenditure to be incurred in Euros, US Dollars, Canadian Dollars and Australian Dollars during the period of project evaluation and development. Once in production sales will largely be determined in US Dollars, but priced in the European market in Euros. Operating costs will be in a variety of currencies with the largest component being energy costs, which are driven predominantly by US Dollar pricing. The Company constantly assesses its currency exposure and currently holds funds in its key currencies, roughly in proportion to its expected exposure.

# GOVERNANCE

# **DIRECTORS' REPORT**

The Directors present their annual report and audited consolidated accounts for the year ended 31 March 2012.

# PRINCIPAL ACTIVITIES AND REVIEW OF BUSINESS

The principal activity of the Group is to acquire and develop properties with exploration and mining potential. Sirius Minerals Plc is a globally diversified company with properties overlying recognised potash deposits held in the United Kingdom, Australia and North America.

A review of the business of the Group is set out in the Chief Executive Officer's report on pages 8 to 12 and the Operations report on pages 21 to 26.

### **RESULTS AND DIVIDENDS**

The loss of the Group for the year was  $\pounds 60,104,000$  (2011:  $\pounds 7,090,000$ ). The loss of the Company for the year was  $\pounds 50,552,000$  (2011:  $\pounds 6,704,000$ ).

The Directors do not recommend a payment of a dividend for the year (2011: £nil).

### **DIRECTORS' INTERESTS**

As at 31 March 2012, the Directors had the following interests either directly or through related parties or entities in which the Directors had a beneficial interest in the ordinary shares of the Company:

	NUMBER OF SHARES HELD	PERCENTAGE OF THE COMPANY HELD
CN FRASER	114,000,750	8.5
CJ CATLOW	100,000,000	7.5
RJ SCRIMSHAW	32,388,888	2.4
PJE WOODS	4,199,916	0.3

# DIRECTORS

THE DIRECTORS OF THE COMPANY DURING THE YEAR WERE:					
<b>RJ SCRIMSHAW</b>	Non-Executive Chairman	Appointed Non-Executive Chairman 21 November 2011			
CN FRASER	Managing Director and CEO				
AM LINDSAY	Finance Director and CFO	Resigned 22 May 2012			
CJ CATLOW	Non-Executive Deputy Chairman	Stepped down as Chairman 21 November 2011			
SIR DAVID HIGGINS	Non-Executive Director	Appointed 15 March 2012			
LORD HUTTON	Non-Executive Director	Appointed 18 January 2012			
PROF MR MAINELLI	Non-Executive Director				
RO'D POULDEN	Non-Executive Director	Stepped down as Non-Executive Deputy Chairman 21 November 2011, then resigned 18 January 2012			
PJE WOODS	Non-Executive Director	Appointed 18 April 2011			

On 22 May 2012, JH Murray was appointed as Finance Director and CFO.

Share options held by the Directors at the year-end were:

	GRANT DATE	NUMBER OF OPTIONS (000S)	EXERCISE PRICE £	VESTING DATE	EXPIRY DATE
CJ CATLOW	26 March 2010	25,000	0.0450	26 March 2010	25 March 2015
	26 March 2010	25,000	0.0450	19 January 2011	25 March 2015
<b>RJ SCRIMSHAW</b>	16 December 2010	12,500	0.2500	16 December 2010	15 December 2015
	16 December 2010	12,500	0.3500	16 December 2010	15 December 2015
	16 December 2010	12,500	0.4500	16 December 2010	15 December 2015
CN FRASER	17 January 2011	10,000	0.1970	17 January 2011	31 December 2013
AM LINDSAY	17 January 2011	4,000	0.1970	17 January 2012	31 December 2013
	30 March 2011	1,747	0.2000	30 March 2012	29 March 2014
LORD HUTTON	30 January 2012	1,800	0.3000	30 January 2015	29 January 2022

On 3 May 2012, the Company granted 1,800,000 share options to Sir David Higgins, with an exercise price of 30p per share which vest on 3 May 2015 and expire on 2 May 2022.

### **DIRECTORS' INDEMNITIES**

The Company has made qualifying indemnity provisions for the benefit of Directors under the letters of appointment of each Director. In addition the Company has purchased Directors' and Officers' Liability insurance.

# SUBSTANTIAL SHAREHOLDINGS

Shareholdings as at 4 July 2012 of 3% or more are as follows:

	PERCENTAGE OF THE COMPANY HELD
DIRECTORS	18.8
BARCLAY SHARE NOMINEES LIMITED	5.6
TD DIRECT INVESTING NOMINEES EUROPE	4.9
LIMITED	
STATE STREET NOMINEES LIMITED	3.9
JIM NOMINEES LIMITED	3.6
INVESTOR NOMINEES LIMITED	3.3
HSDL NOMINEES LIMITED	3.0

# FINANCIAL RISK MANAGEMENT

Details of the Group's financial instruments and its policies with regard to financial risk management are given in note 24 to the consolidated accounts.

### PRINCIPAL RISKS AND UNCERTAINTIES AND KEY PERFORMANCE INDICATORS

Details of the principal risks and uncertainties and key performance indicators relative to the Group are set out in the Principal Risks and Uncertainties report on pages 33 to 36.

### **CREDITOR PAYMENT POLICY**

Payment terms are normally agreed with individual suppliers at the time of order placement and are honoured, provided that goods and services are supplied in accordance with the contractual conditions.

At the year end, the number of creditor days of the Group was 15 (2011: 30).

# EVENTS AFTER THE REPORTING PERIOD

On 3 May 2012, the Company granted 1,800,000 share options with an exercise price of 30p per share to Sir David Higgins.

On 4 May 2012, the Company received notification that C&J Fraser Investments Pty Limited, trustee of the Fraser Family Trust of which CN Fraser is a beneficiary, purchased 500,000 ordinary shares of 0.25p each at an average price of 18.48p per share, in the market.

### STATEMENT REGARDING DISCLOSURE OF INFORMATION TO THE AUDITORS

In the case of each person who was a Director at the time this report was approved:

- so far as that Director was aware, there was no relevant audit information of which the Group's auditors were unaware; and
- that Director had taken all steps that the Director ought to have taken as a Director to make himself or herself aware of any relevant audit information and to establish that the Group's auditors were unaware of that information.

This information is given and should be interpreted in accordance with the provisions of section 418 of the Companies Act 2006.

### AUDITORS

A resolution in respect of the re-appointment of Nexia Smith & Williamson as the Group's auditors will be proposed at the forthcoming Annual General Meeting.

Approved by the Board of Directors and signed on behalf of the Board

J Sembi Company Secretary Date: 9 August 2012

# **BOARD OF DIRECTORS**



RUSSELL SCRIMSHAW

NON-EXECUTIVE CHAIRMAN (63)

Russell Scrimshaw was formerly an Executive Director of Fortescue Metals Group Ltd (FMG) and was a member of the FMG Board from 2003 until 2011. Previously Russell Scrimshaw was a board member of Commonwealth Properties Ltd, EDS Australia, Mobilesoft Ltd, Telecom New Zealand Australia Pty Ltd, The Garvan Institute Foundation and Athletics Australia and has also held senior executive positions within the Commonwealth Bank of Australia, Optus Communications Pty Ltd, Alcatel, IBM and Amdahl USA. In addition he is an Associate Member of the Australian Society of Certified Practicing Accountants, an Adjunct Professor of Mining Economics at China Central South University in Changsha, China and a non-executive director of ASX-listed Cleveland Mining Company Limited.

Russell Scrimshaw was appointed Chairman of Sirius Minerals in November 2011 and is a member of the Remuneration Committee and the Nominations Committee.



# CHRIS FRASER

MANAGING DIRECTOR AND CEO (38)

Chris Fraser has approximately 16 years' finance experience in the mining industry. During this time he worked for Citigroup, Rothschild and KPMG and has market leading expertise in all aspects of the financing and development of major mining projects.

Having joined Citigroup in 2000, Chris Fraser was appointed Head of Metals and Mining Investment Banking for Australia in 2006 and Managing Director in 2008. In these roles he led the bank to become one of the leading investment banking franchises in the mining industry in Australia. In particular he was the lead adviser on the US\$2.5 billion initial development capital financing for Fortescue Metals Group Ltd (FMG). He has provided strategic advice to many of the world's leading mining companies including BHP Billiton, Rio Tinto, WMC Resources and Paladin Energy.

In 2009 Chris Fraser founded Sigiriya Capital, a specialist advisory and investment house focused on the resources sector. In 2010 he founded York Potash Ltd to undertake the exploration and development of the York Potash Project and in January 2011 York Potash was acquired by Sirius Minerals. Chris Fraser holds a Bachelor in Commerce from the University of Western Australia. He is a qualified Chartered Accountant and a member of the Institute of Chartered Accountants in Australia. In addition, he is a Senior Associate of the Financial Services Institute of Australia (FINSIA) and a member of the Institute of Company Directors in Australia.

Chris Fraser joined the Board in January 2011.



#### **JASON MURRAY**

FINANCE DIRECTOR AND CFO (43)

Jason Murray previously worked at Bank of America Merrill Lynch where he was Head of Capital Markets in Australia. Jason Murray has over 20 years' finance experience having held senior positions at Citigroup and JP Morgan and previously working in various accounting and finance sector roles in London, New York and Moscow. In the last decade, prior to him joining the Company, he participated in raising over US\$250 billion for global companies in the debt, equity and hybrid capital markets in the USA, Europe and Asia. As well as being at the forefront of capital markets globally, Jason Murray, is a member of the Institute of Chartered Accountants of England and Wales and has a degree in Accounting. Jason is currently a member of the Australian Institute of Company Directors and the British Institute of Directors.

Jason Murray joined the Board in May 2012.



### CHRIS CATLOW

NON-EXECUTIVE DEPUTY CHAIRMAN (51)

Chris Catlow is highly experienced in the international resources industry having worked on the development and operations of oil and gas, hard rock and sand mining projects over a 25 year career. He played a central role in the formation of lluka Resources Limited and most recently was a senior executive and CFO of the ASX-listed iron ore mining company, Fortescue Metals Group Ltd (FMG), having joined shortly after its formation in 2003. During his seven years at FMG, initially as its inaugural Chief Financial Officer and then as its Investment and Business Development Director, the company financed and brought into production its major iron ore mining, processing and port facility in Western Australia's Pilbara region. The development established FMG as Australia's third largest iron ore producer behind Rio Tinto and BHP Billiton.

Chris Catlow has a BSc in Engineering Science from the University of Durham in the UK and is a Fellow of the Institute of Chartered Accountants in Australia. He is currently Chairman of Indo Mines Limited and Allied Healthcare Group Limited both listed on the ASX.

Chris Catlow was appointed as a director of the Company in April 2010 and as Deputy Chairman in November 2011. He is Chairman of the Audit Committee and is a member of the Remuneration Committee.



JOHN HUTTON BARON HUTTON OF FURNESS, NON-EXECUTIVE DIRECTOR (57)

#### Lord Hutton was a distinguished member of the Government for 13 years from 1997 to 2010, including 11 years as a Minister and four years serving on the Cabinet.

He was appointed Chairman of the Independent Public Service Pensions Commission established by the current Government in June 2010, which delivered its final report in March 2011. Lord Hutton was a legal adviser to the Confederation of Business Industry in the late 1970s before becoming a senior law lecturer at Newcastle Polytechnic. In 1992 he was elected to the Barrow and Furness seat in Cumbria where he remained as MP until he stood down at the 2010 general election.

During Lord Hutton's varied career in Government, he served first as a Permanent Parliamentary Secretary in the Department of Trade and Industry before becoming Leader of the House of Commons and then moving to the Department of Health in 1998 where he became Minister of State for Health in 1999, a position he held until 2005. In 2005 Lord Hutton was briefly appointed Chancellor of the Duchy of Lancaster and Minister of the Cabinet Office before being made Secretary of State for Work and Pensions. In 2007 Lord Hutton was appointed Secretary of State for Business, Enterprise and Regulatory Reform. In 2008 he became Secretary of State for Defence until he stepped down from the Cabinet in 2009. Following the general election in 2010 he was created a life peer as Baron Hutton of Furness and now sits in the House of Lords.

Lord Hutton joined the Board in January 2012. He is Chairman of the Remuneration Committee.



# **SIR DAVID HIGGINS**

NON-EXECUTIVE DIRECTOR (57)

Sir David, is currently the Chief Executive of Network Rail, the Authority responsible for the UK's rail network with an asset value of £40 billion. Previously he was Chief Executive of the Olympic Delivery Authority ("ODA") from March 2006 until January 2011 responsible for Venues, Infrastructure and Spectator Transport for the London 2012 Olympic and Paralympic Games with a budget of £8 billion. Prior to this, he was Chief Executive of English Partnerships, the Government's National Regeneration Agency, for three years. Earlier in Sir David's career, he was the Managing Director and Chief Executive of Lend Lease Group, a global property and infrastructure company. He graduated in Civil Engineering from the University of Sydney and also holds a Diploma from the Securities Institute of Australia. He was knighted in 2011.

Sir David joined the Board in March 2012. He is a member of the Audit Committee.

# **BOARD OF DIRECTORS**



PROFESSOR MICHAEL MAINELLI FCCA FCSI FBCS,

NON-EXECUTIVE DIRECTOR (53)

Michael Mainelli is Executive Chairman of Z/Yen, the City of London's leading commercial think-tank, where he has worked since 1994 on strategy, technology, finance and business development. He started his career as a research scientist and then spent seven years as a partner in a leading accountancy firm directing much of their consultancy work in the UK and overseas. Michael's natural resources experience dates back to 1979 where his early research work led to him starting companies in seismology, cartography and oil & gas information for a Swiss firm. In the early 1980s he initiated and ran the Swiss firm's multi-million dollar oil industry consortium (Shell, BP, Chevron and Elf Aquitaine were the primary partners plus 10 minor partners) to digitise the world. This culminated in the development of Geodat and Mundocart, oil industry standard sets of cartographic data at scales from 1:50,000 to 1:1,000,000 and over 60 million geographic features.

Michael has worked for public, private and not-for-profit companies, led several privatisation projects, was Chief Scientist of the DTI Foresight Challenge award-winning Financial Laboratory and served as Corporate Development Director on the board of Europe's then largest R&D organisation – the 12,000 strong Defence Evaluation and Research Agency of the UK's Ministry of Defence.

Michael is Emeritus Professor of Commerce at Gresham College and was British Computer Society Director of the year in 2005.

Michael Mainelli joined the Board in May 2005. He is a member of the Audit Committee and is Chairman of the Nominations Committee.



#### PETER WOODS

NON-EXECUTIVE DIRECTOR (74)

Peter Woods is a consulting geologist and engineer with extensive experience in the potash industry having worked for 13 years as Chief Geologist at the Boulby Potash Mine in North Yorkshire, initially on its development and start-up. Since leaving Boulby, Peter has consulted to a number of potash companies and projects including Selection Trust on the Red Sea potash project in Saudi Arabia and for two years on the Environmental Protection Scheme for the ASEAN potash project in Thailand. In addition he has reviewed potash projects in Spain and Russia. He has been advising York Potash Ltd since its establishment and has continued to do so following its acquisition by Sirius in January 2011. In addition to his potash knowledge, following a Masters Degree in Environmental and Resource Management issues in 1988, Peter Woods served as the Secretary of State's Environmental Appointee on the North York Moors National Park Authority from 1996 – 1999.

Peter Woods also ran his own environmental consultancy until 2007 and has lived in North Yorkshire, on and off, for over 40 years.

Peter Woods joined the Board in April 2011.

# **CORPORATE GOVERNANCE STATEMENT**

The maintenance of effective corporate governance remains a key priority for the Board. The Board recognises the importance of sound corporate governance and has adopted policies and procedures which reflect the principles of the UK Corporate Governance Code that are consistent with the Corporate Governance Guidelines for Smaller Quoted Companies published by the Quoted Companies Alliance in September 2010, of which the Company is a member.

# THE BOARD

The Board comprises two Executive Directors and six Non-Executive Directors providing an appropriate balance of executive and non-executive positions on the Board. The directors have a broad range of relevant strategic, industry, financial, governance and other experience to enable the Company to fulfil its objective of becoming one of the world's most important potash producers. The particular experience and skills of each director can be found in their biographies on pages 40 to 42.

A clear separation is maintained between the responsibilities of the Chairman and the Managing Director and CEO. The Chairman is responsible for leading the Board and the Managing Director and CEO is responsible for the overall performance of the Company.

The Chairman, Russell Scrimshaw is non-executive. The Deputy Chairman, Chris Catlow is also non-executive. The executive directors are Chris Fraser, the Managing Director and CEO and Jason Murray, the Finance Director and CFO. The remaining four Non-Executive Directors are Michael Mainelli, Peter Woods, Lord Hutton and Sir David Higgins. The Board considers Russell Scrimshaw, Michael Mainelli, Lord Hutton and Sir David Higgins to be independent in character and independent in judgement and are therefore independent directors. Although not all of these directors fully satisfy the guidelines set out in the UK Corporate Governance Code the Board has considered the situation of each director and the relevance of the differences with the guidelines in the context of the Company being listed on AIM and has concluded on each directors' independence.

If a potential conflict of interest exists or arises for any director he is required to declare such conflicts, which will be recorded, and the Board will exercise its authority under the Company's Articles of Association as appropriate in considering such conflict.

The Board meets regularly during the year, at least every two months, to discuss significant matters including long term strategy, short-term operational activities and financial performance. The latest management reports and accounts, including variances to budget, are presented at each Board meeting.

The Company's Articles of Association require one third of the directors to retire from office by rotation at every Annual General Meeting. Due to the recent election of several directors, only Chris Catlow will be retiring by rotation at the forthcoming Annual General Meeting.

For the duration of the year the Company had an Audit Committee and a Remuneration & Nominations Committee, but subsequent to the year end the Remuneration and Nominations Committee was separated into two committees a Remuneration Committee and a Nominations Committee. All of the committees have formally delegated responsibilities by way of terms of reference.

# AUDIT COMMITTEE

The members of the Audit Committee are Chris Catlow, Michael Mainelli and Sir David Higgins. Chris Catlow is Chairman of the committee. The committee consists entirely of Non-Executive Directors and Michael Mainelli and Sir David Higgins are deemed to be independent. The duties of the committee include reviewing the Company and Group financial statements, reviewing the effectiveness of the Company's internal controls and risk management systems and overseeing the relationship with the external auditor. The committee meets at least three times a year. The executive directors attend meetings by invitation.

### **REMUNERATION COMMITTEE**

The members of the Remuneration Committee are Lord Hutton, Russell Scrimshaw and Chris Catlow. Lord Hutton is Chairman of the committee. The committee consists entirely of Non-Executive Directors and Lord Hutton is deemed to be independent. The duties of the committee include reviewing the remuneration and service contracts of executive directors and reviewing the design of all share incentive plans. The committee meets at least once a year. Directors' remuneration for the year is given in note 7 to the consolidated accounts and this disclosure forms part of this report.

# NOMINATIONS COMMITTEE

The members of the Nominations Committee are Michael Mainelli and Russell Scrimshaw. Michael Mainelli is Chairman of the committee. The committee consists entirely of Non-Executive Directors and Michael Mainelli is deemed to be independent. The duties of the committee include evaluating the balance of skills, knowledge and experience on the Board before any appointments are made. The committee meets at least once a year.

# **CORPORATE GOVERNANCE STATEMENT**

The performance of the Board, committees and individual directors are evaluated on a regular basis. Individual director evaluation includes whether each director continues to contribute effectively and demonstrates commitment to their role by attending Board meetings.

Further ad hoc meetings were held during the year to approve certain matters during the period leading to the placing and on other matters.

### **INTERNAL CONTROLS**

The Board has overall responsibility for the effectiveness of the Group's internal controls in safeguarding the assets of the Group. The internal control systems are designed to identify and manage risks to ensure that the possibilities of material misstatements or loss are kept to a minimum. The processes used by the Board to review the effectiveness of the internal controls are through the Audit Committee and the executive management reporting to the Board on a regular basis where business plans, budgets and authorisation limits for the approval of significant expenditure including investment are appraised and agreed. The Board also seeks to ensure that there is a proper organisational and management structure with clear responsibilities and accountability.

The Company has adopted and applies a share dealing code on the dealing in securities of the Company by directors and employees, to ensure compliance with Rule 21 of the AIM Rules.

The Company has undertaken a risk assessment to determine the Company's exposure to bribery and corruption risk in the countries, sectors and markets in which it operates. Following this assessment the Board considered that the Company's risk exposure in these areas was low, but implemented certain policies and procedures to ensure compliance with the requirements of the Bribery Act 2010 and that the Company's employees were suitably briefed on these policies and procedures. The Company will continue to monitor risk regularly and to determine the adequacy of the briefing of employees to ensure compliance.

Due to the small size of the Group, an internal audit function has not been established. The Board receives sufficient assurance on risk, control and governance from other assurance activities within the Group including from regular management information and the external auditors.

### ATTENDANCE AT BOARD AND COMMITTEE MEETINGS

Attendance at board and committee meeting during the year was as follows:

	SCHEDULED BOARD MEETINGS	AUDIT COMMITTEE MEETINGS	REMUNERATION & NOMINATION COMMITTEE MEETINGS
RJ SCRIMSHAW	6/6		3/3
CN FRASER	6/6		
AM LINDSAY (RESIGNED 22 MAY 2012)	6/6		
CJ CATLOW	6/6	2/2	3/3
SIR DAVID HIGGINS (APPOINTED 15 MARCH 2012)	1/1		
LORD HUTTON (APPOINTED 18 JANUARY 2012)	2/2		
PROF M MAINELLI	4/6	4/4	3/3
RO'D POULDEN (RESIGNED 18 JANUARY 2012)	3/4		
DCW STONLEY (RESIGNED 15 MARCH 2012)	5/5	2/2	
PJE WOODS (APPOINTED 18 APRIL 2012)	6/6		

### **GOING CONCERN**

The directors have reviewed the financial performance of the Group since 31 March 2012 and have considered the Group's cash projections for the 12 months from the date of approval of these accounts. Based on these projections, the directors have determined that the Group has sufficient cash resources for the next 12 months and consider it appropriate to draw up the accounts on a going concern basis.

# KEY PERFORMANCE INDICATORS

The Group's approach to KPIs is set out on page 34.

# PRINCIPAL RISKS AND UNCERTAINTIES

A review of the Group's principal risks and uncertainties is set out on pages 34, 35 and 36.

# COMMUNICATION WITH SHAREHOLDERS

The Board places importance on effective communication with shareholders and maintains regular dialogue with and gives briefings to analysts and institutional investors. Presentations are generally given by the Executive Directors and on occasion by the Chairman. In particular a presentation is made at the Annual General Meeting. Care is taken to ensure that any price-sensitive information is released promptly to all shareholders through the Regulated News Service, the circulation of such releases to all shareholders who have registered for inclusion on the Company's circulation list and through placing the release on the Company's website. The Notice of Annual General Meeting, annual report and audited accounts and interim financial statements in particular are issued in this manner. The Notice of the Annual General Meeting can be found on pages 81 to 83.

Rule 26 of the AIM Rules requires companies to maintain a website on which certain information should be available, free of charge. This information is available on the Company's website at www.siriusminerals.com.

### Approved by the Board of Directors and signed on behalf of the Board

J Sembi Company Secretary

# **STATEMENT OF DIRECTORS' RESPONSIBILITIES**

The Directors are responsible for preparing the Directors' Report and the accounts in accordance with applicable law and regulations.

Company law requires the Directors to prepare accounts for each financial year. Under that law the Directors have elected to prepare the Group and Company accounts in accordance with applicable law and International Financial Reporting Standards (IFRS) as adopted by the European Union and, as regards the Company accounts, as applied in accordance with provisions of the Companies Act 2006. Under company law the Directors must not approve the accounts unless they are satisfied that they give a true and fair view of the state of affairs of the Company and the Group and of the profit or loss of the Group for that period. In preparing these accounts, 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 applicable IFRS, as adopted by the European Union, have been followed subject to any material departures disclosed and explained in the accounts; and
- Prepare the accounts on the going concern basis unless it is inappropriate to presume that the Group will continue in business.

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

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Legislation in the United Kingdom governing the preparation and dissemination of accounts may differ from legislation in other jurisdictions.

# FINANCIALS

# **INDEPENDENT AUDITORS' REPORT**

### INDEPENDENT AUDITORS' REPORT TO THE MEMBERS OF SIRIUS MINERALS PLC

We have audited the accounts of Sirius Minerals Plc for the year ended 31 March 2012 which comprise the Consolidated Income Statement, the Consolidated and Company Statements of Comprehensive Income, the Consolidated and Company Statements of Financial Position, the Consolidated and Company Statements of Changes in Equity, the Consolidated and Company Statements of Cash Flows and the related notes 1 to 25. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as regards the company accounts, as applied in accordance with the provisions of the Companies Act 2006.

This report is made solely to the 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 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 company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

#### **RESPECTIVE RESPONSIBILITIES OF DIRECTORS AND AUDITOR**

As explained more fully in the Directors' Responsibilities Statement set out on page 46, the Directors are responsible for the preparation of the accounts and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the accounts in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

#### SCOPE OF THE AUDIT OF THE ACCOUNTS

A description of the scope of an audit of financial statements is provided on the APB's website at www.frc.org.uk/apb/scope/private.cfm.

#### **OPINION ON ACCOUNTS**

In our opinion:

- the accounts give a true and fair view of the state of the Group's and of the Company's affairs as at 31 March 2012 and of the Group's loss for the year then ended;
- the Group accounts have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the Company accounts 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 accounts have been prepared in accordance with the requirements of the Companies Act 2006.

### **OPINION ON OTHER MATTER PRESCRIBED BY THE COMPANIES ACT 2006**

In our opinion the information given in the Directors' Report for the financial year for which the accounts are prepared is consistent with the accounts.

### MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION

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

- adequate accounting records have not been kept by the company, or returns adequate for our audit have not been received from branches not visited by us; or
- the company accounts 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.

Stephen dient.

**Stephen Drew** Senior Statutory Auditor, for and on behalf of

Nexia Smith & Williamson Statutory Auditor, Chartered Accountants

Date: 10 August 2012

25 Moorgate London EC2R 6AY

# **CONSOLIDATED INCOME STATEMENT**

for the year ended 31 March 2012

	Notes	2012 £000s	2011 £000s
Continuing operations			
Revenue Administrative expenses Summary of administrative expenses:		- (63,274)	(7,713)
Impairment charge	4	(57,143)	(732)
Acquisition costs	4	-	(48)
Exploration costs expensed	4	-	(497)
Other administrative costs		(6,131)	(6,436)
Operating loss	5	(63,274)	(7,713)
Finance income	6	164	45
Loss before taxation	2	(63,110)	(7,668)
Taxation	8	3,006	578
Loss for the financial year		(60,104)	(7,090)
Loss per share:			
Basic and diluted	9	(5.6)p	(1.0)p

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

for the year ended 31 March 2012

Total comprehensive loss for the year	(59,620)	(5,929)
Other comprehensive income for the year, net of tax	484	1,161
Other comprehensive income Exchange differences on translating foreign operations	484	1,161
Loss for the year	(60,104)	(7,090)
	2012 £000s	2011 £000s

Total comprehensive loss shown above is fully attributable to equity shareholders of the parent in both years.

# **CONSOLIDATED STATEMENT OF FINANCIAL POSITION**

as at 31 March 2012

ASSETS	Notes	2012 £000s	2011 £000s
Non-current assets			
Plant and equipment	10	253	36
Intangible assets	11	46,442	91,197
Total non-current assets		46,695	91,233
Current assets			
Other receivables	13	1,703	307
Cash and cash equivalents	15	54,271	21,010
Loans and receivables	16	1,500	-
Total current assets		57,474	21,317
TOTAL ASSETS		104,169	112,550
EQUITY AND LIABILITIES			
Equity			
Share capital	17	3,348	2,581
Share premium account		147,238	95,658
Share based payment reserve	18	7,691	6,343
Retained earnings		(70,804)	(10,700)
Foreign exchange reserve		7,217	6,733
Total equity		94,690	100,615
Non-current liabilities			
Deferred tax liability	19	6,628	9,701
Current liabilities			
Trade and other payables	21	2,851	2,234
Total liabilities		9,479	11,935
TOTAL EQUITY AND LIABILITIES		104,169	112,550

The accounts were issued and approved by the Board of Directors on 9 August 2012 and were signed on its behalf by:

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JH Murray Finance Director and CFO

# **CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**

for the year ended 31 March 2012

	Share capital £000s	Share premium account £000s	Share based payments reserve £000s	Retained earnings £000s	Foreign exchange reserve £000s	Equity share- holders' funds £000s	Minority interests £000s	Total equity £000s
<b>At 31 March 2010</b> Loss for the financial year Foreign exchange differences on	1,658 -	47,959	1,575	(3,610) (7,090)	5,572	53,154 (7,090)	-	53,154 (7,090)
translation of foreign operations	-	-	-	-	1,161	1,161	-	1,161
Total comprehensive income for the year On acquisition	-	-	-	(7,090)	1,161 -	(5,929)	-	(5,929)
Share capital issued in the year Share issue costs	923	48,626 (927)	-	-	-	49,549 (927)	-	49,549 (927)
Share based payments Exercised options	-	-	4,809 (41)	-	-	4,809 (41)	-	4,809 (41)
<b>At 31 March 2011</b> Loss for the financial year Foreign exchange differences on	2,581 -	95,658 -	6,343 -	(10,700) (60,104)	6,733	100,615 (60,104)	-	100,615 (60,104)
translation of foreign operations	-	-	-	-	484	484	-	484
Total comprehensive income for the year Share capital issued in the year Share issue costs Share based payments	- 767 - -	- 54,288 (2,708) -	- - 1,348	(60,104) - - -	484 - - -	(59,620) 55,055 (2,708) 1,348	- - -	(59,620) 55,055 (2,708) 1,348
At 31 March 2012	3,348	147,238	7,691	(70,804)	7,217	94,690	-	94,690

The share premium account is used to record the excess proceeds over nominal value on the issue of shares.

The share based payment reserve is used to record the share based payments made by the Group.

Foreign exchange reserve records exchanges differences which arise on translation of foreign operations with a functional currency other than Sterling.

# **CONSOLIDATED STATEMENT OF CASH FLOWS**

for the year ended 31 March 2012

	Notes	2012 £000s	2011 £000s
Cash outflow used in operating activities	22	(5,503)	(622)
Cash flow from investing activities			
Purchase of intangible assets	11	(12,386)	(3,148)
Purchase of plant and equipment	10	(270)	(37)
Acquisition of subsidiary, net of cash acquired		-	(372)
Loan to third party	16	(1,500)	-
Net cash used in investing activities		(14,156)	(3,557)
Cash flow from financing activities			
Proceeds from issue of shares	17	55,055	24,342
Share issue costs	17	(2,708)	(927)
Finance income		164	45
Net cash generated from financing activities		52,511	23,460
Net increase in cash and cash equivalents		32,852	(19,281)
Cash and cash equivalents at beginning of the year	15	21,010	1,782
Effect of foreign exchange rate changes		409	(53)
Cash and cash equivalents at end of the year	15	54,271	21,010

# **COMPANY STATEMENT OF COMPREHENSIVE INCOME**

for the year ended 31 March 2012

	2012 £000s	2011 £000s
Loss for the year	(50,552)	(6,704)
Other comprehensive income/(loss) for the year, net of tax	-	-
Total comprehensive loss for the year	(50,552)	(6,704)

# **COMPANY STATEMENT OF FINANCIAL POSITION**

as at 31 March 2012

ASSETS	Notes	2012 £000s	2011 £000s
Non-current assets			
Plant and equipment	10	76	1
Intangible assets	11	3	-
Investments in subsidiaries	12	27,717	69,539
Total non-current assets		27,796	69,540
Current assets			
Other receivables	13	116	103
Loans to subsidiaries	14	15,753	3,785
Cash and cash equivalents	15	53,828	20,871
Total current assets		69,697	24,759
TOTAL ASSETS		97,493	94,299
EQUITY AND LIABILITIES			
Equity attributable to equity holders of the Company Share capital	17	3,348	2,581
Share premium account	17	147,238	95,658
Share based payment reserve	18	7,691	6,343
Retained earnings	10	(62,210)	(11,658)
Total equity		96,067	92,924
Current liabilities			
Loan from subsidiary company	20	1,104	1,104
Trade and other payables	21	322	271
Total liabilities		1,426	1,375
TOTAL EQUITY AND LIABILITIES		97,493	94,299

The accounts were issued and approved by the Board of Directors on 9 August 2012 and were signed on its behalf by:

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JH Murray Finance Director and CFO

# **CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**

for the year ended 31 March 2012

At 31 March 2012	3,348	147,238	7,691	(62,210)	96,067
Share issue costs Share based payment reserve	-	(2,708)	- 1,348	-	(2,708) 1,348
income Share capital issued in the year	767	- 54,288	-	(50,552) -	(50,552) 55,055
At 31 March 2011 Loss for the year and total comprehensive	2,581	95,658	6,343	(11,658)	92,924
Share based payment reserve Exercised options	-	-	4,809 (41)	-	4,809 (41)
Share capital issued in the year Share issue costs	- 923	(927)	-	-	49,549 (927)
Loss for the year and total comprehensive income	- 923	- 48,626	-	(6,704)	(6,704) 49,549
At 31 March 2010	1,658	47,959	1,575	(4,954)	46,238
	Share capital £000s	Share premium account £000s	Share based payments reserve £000s	Retained earnings £000s	Equity shareholders' funds £000s

The share premium account is used to record the excess proceeds over nominal value on the issue of shares.

The share based payment reserve is used to record the share based payments made by the Company.

# **COMPANY STATEMENT OF CASH FLOWS**

for the year ended 31 March 2012

	Notes	2012 £000s	2011 £000s
Cash outflow used in operating activities	22	(1,934)	(1,200)
Cash flow from investing activities			
Purchase of intangible assets	11	(4)	-
Purchase of plant and equipment	10	(87)	(1)
Investment in subsidiary		-	(373)
Loans to subsidiary companies	14	(17,511)	(2,571)
Net cash used in investing activities		(17,602)	(2,945)
Cash flow from financing activities			
Proceeds from issue of shares	17	55,055	24,342
Share issue costs	17	(2,708)	(927)
Loan from subsidiary company	20	-	1,104
Finance income		146	42
Net cash generated from financing activities		52,493	24,561
Net increase in cash and cash equivalents		32,957	20,416
Cash and cash equivalents at beginning of year	15	20,871	455
Cash and cash equivalents at end of the year	15	53,828	20,871

# NOTES TO THE ACCOUNTS

### **1. ACCOUNTING POLICIES**

#### **BASIS OF PREPARATION**

The annual accounts of Sirius Minerals Plc ("the Company") and its subsidiaries ("the Group") have been prepared in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union ("EU") and applied in accordance with the provisions of the Companies Act 2006.

IFRS is subject to amendment and interpretation by the International Accounting Standards Board ("IASB") and the International Financial Reporting Standards Interpretations Committee ("IFRIC") and there is an ongoing process of review and endorsement by the European Commission. The accounts have been prepared on the basis of the recognition and measurement principles of IFRS that were applicable at 31 March 2012.

The accounts have been prepared under the historical cost convention. The principal accounting policies set out below have been consistently applied to all periods presented.

#### **GOING CONCERN**

The Group has incurred trading losses during the year ended 31 March 2012. The Directors have reviewed the financial performance of the Group since 31 March 2012 and have considered the Group's cash projections for the 12 months from the date of approval of these accounts. Based on these projections, the Directors have determined that the Group has sufficient cash resources for the next 12 months and consider it appropriate to draw up the accounts on a going concern basis. The accounts do not include any adjustments that would result if the going concern assumption was no longer deemed appropriate.

### INTERNATIONAL FINANCIAL REPORTING STANDARDS IN "ISSUE" BUT NOT YET EFFECTIVE

At the date of authorisation of these consolidated accounts, the IASB and IFRIC have issued standards and interpretations which are effective for annual accounting periods beginning on or after the stated effective date. Whilst these standards and interpretations are not effective for and have not been applied in the preparation of these consolidated accounts, the following may have a material impact going forward:

- IFRS 7 (Amendment) 'Disclosures Transfer of Financial Assets' (effective from 1 July 2011);
- IAS 12 (Amendment) 'Deferred Tax: Recovery of Underlying Assets' (effective from 1 January 2012);
- IAS 1 (Amendment) 'Presentation of items of Other Comprehensive Income' (effective from 1 July 2012);
- IFRS 10 'Consolidated Financial Statements' (effective from 1 January 2013);
- IFRS 11 'Joint Arrangements' (effective from 1 January 2013);
- IFRS 12 'Disclosure of Interests in Other Entities' (effective from 1 January 2013);
- IAS 27 'Separate Financial Statements' (effective from 1 January 2013);
- IAS 28 'Investments in Associates and Joint Ventures' (effective from 1 January 2013);
- IFRS 13 'Fair Value Measurement' (effective from 1 January 2013);
- IAS 19 (Amendment) 'Employee Benefits' (effective from 1 January 2013);
- IFRS 7 (Amendment) (effective from 1 January 2013);
- IFRS 1 (Amendment) (effective from 1 January 2013);
- IAS 32 (Amendment) 'Financial Instruments: Presentation' (effective from 1 January 2014);
- IFRS 9 'Financial Instruments' (effective from 1 January 2015);
- IFRIC 20 'Stripping Costs in the Production Phase of a Surface Mine' (effective from 1 January 2013).

#### NEW AND AMENDED STANDARDS ADOPTED BY THE GROUP

The Group has adopted the following new and amended IFRSs as of 1 April 2011:

• IAS 24 (Revised) 'Related Party Transactions' (effective from 1 January 2011);

The revisions to this standard are relevant for government-related securities. The definition of a related party has been amended in respect of relationships involving significant influence and the related party disclosures normally required by state-controlled entities were reduced. The Group adopted this revised standard from 1 April 2011. The adoption of this standard did not have a material impact on the Group.

### **BASIS OF CONSOLIDATION**

The Group's consolidated accounts incorporate the accounts of the Company and entities controlled by the Company (its subsidiaries) prepared to 31 March each year. Control is achieved where the Company has power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities.

The results of the subsidiaries acquired or disposed of during the year are included in the consolidated income statement from the effective date of acquisition or up to the effective date of disposal, as appropriate.

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

All intra-group transactions and balances and any unrealised gains and losses arising from intra-group transactions are eliminated in preparing the consolidated accounts.

As a consolidated income statement is published, a separate income statement for the parent Company is omitted from the Group accounts by virtue of section 408 of the Companies Act 2006. The loss for the Company for the year was £50,552,000 (2011: £6,704,000).

#### **BUSINESS COMBINATIONS AND GOODWILL**

On acquisition, the assets and liabilities and contingent liabilities of subsidiaries are measured at their fair values at the date of acquisition. Any excess of cost of acquisition over the fair value of identifiable net assets acquired is recognised as goodwill. Any deficiency of the cost of acquisition below the fair values of the identifiable net assets acquired (i.e. discount on acquisition) is credited to the income statement in the period of acquisition. Goodwill arising on consolidation is recognised as an asset and reviewed for impairment at least annually. Any impairment is recognised immediately in the income statement and is not subsequently reversed.

#### PLANT AND EQUIPMENT

Plant and equipment are stated at cost less depreciation less any recognised impairment losses. Cost includes expenditure that is directly attributable to the acquisition or construction of these items. Subsequent costs are included in the asset's carrying amount only when it is probable that future economic benefits associated with the item will flow to the Group and the costs can be measured reliably. All other costs, including repairs and maintenance costs are charged to the income statement in the period in which they are incurred. Depreciation is provided on all tangible fixed assets and is calculated on a straight-line basis to allocate cost, other than assets in the course of construction, over the estimated useful lives, as follows:

33.3% per annum
33.3% per annum
33.3% per annum
20% per annum
Over the period of the lease

#### SOFTWARE

Computer software is carried at cost less accumulated amortisation and impairments, and is amortised on a straight-line basis over 3 years.

### **EXPLORATION AND EVALUATION ASSETS**

Costs arising from exploration and evaluation activities are accumulated separately for each area of interest and only capitalised where such costs are expected to be recouped through successful development, or through sale, or where exploration and evaluation activities have not, at the reporting date, reached a stage to allow a reasonable assessment regarding the existence of economically recoverable reserves.

Expenditure capitalised comprises direct costs that have a specific connection with a particular area of interest.

Capitalised expenditure in respect of areas of interest is written off in the income statement when the above criteria do not apply or when the directors assess that the carrying value may exceed the recoverable amount.

Capitalised costs in respect of an area of interest that is abandoned are written off in the period in which the decision to abandon is made.

Once production commences, capitalised expenditure in respect of an area of interest is amortised on a unit of production basis by reference to the reserves of that area of interest.

### IMPAIRMENT

At each balance sheet date, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset, for which the estimates of future cash flow have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately, unless the relevant asset is carried at a re-valued amount, in which case the impairment loss is treated as a revaluation decrease.

Where an impairment loss subsequently reverses, the carrying amount of the asset (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 (cash-generating unit) in prior periods. A reversal of the impairment loss is recognised in the income statement immediately.

### **FOREIGN CURRENCIES**

The reporting and functional currency of the Group is Sterling. Transactions denominated in a foreign currency are translated into sterling at the rate of exchange ruling at the date of the transaction. At the balance sheet date, monetary assets and liabilities denominated in foreign currency are translated at the rate ruling at that date. All exchange differences are dealt with in the income statement.

On consolidation, the assets and liabilities of foreign operations which have a functional currency other than Sterling are translated into Sterling at foreign exchange rates ruling at the balance sheet date. The revenues and expenses of these subsidiary undertakings are translated at average rates applicable in the period. All resulting exchange differences are recognised as a separate component of equity.

The foreign exchange rates at the balance sheet date and the average rates for the year that were used in preparing the consolidated accounts were:

	Balance sheet date	Average rate
Australian Dollars to Sterling	1.54 (2011: 1.56)	1.53 (2011: 1.65)
US Dollars to Sterling	1.60 (2011: 1.60)	1.60 (2011: 1.55)
Canadian Dollars to Sterling	1.59 (2011: 1.56)	1.59 (2011: 1.58)

### INVESTMENTS

Investments by the Company in respect of its subsidiaries are held at cost less any provision for impairment when required.

#### SEGMENT REPORTING

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker as required by IFRS 8 'Operating Segments'. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors.

The accounting policies of the reportable segments are consistent with the accounting policies of the Group as a whole. Segment loss represents the loss incurred by each segment without allocation of foreign exchange gains or losses, investment income, interest payable and tax. This is the measure of loss that is reported to the Board of Directors for the purpose of resource allocation and the assessment of segment performance.

When assessing segment performance and considering the allocation of resources, the Board of Directors review information about segment assets and liabilities. For this purpose, all assets and liabilities are allocated to reportable segments with the exception of the assets and liabilities in relation to the Group's head offices.

#### LOANS AND OTHER RECEIVABLES

Loans and other receivables are recognised initially at fair value and subsequently measured at amortised cost less provision for impairment. Provision for impairment is established when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of the loan or receivable. The amount of the impairment is the difference between the asset's carrying amount and the present value of the estimated future cash flows, discounted at the effective interest rate.

### CASH AND CASH EQUIVALENTS

Cash and cash equivalents include various instant access deposits and short term fixed deposits.

#### TRADE AND OTHER PAYABLES

Trade payables are initially measured at fair value, and subsequently measured at amortised cost, using the effective interest rate method.

#### TAXATION

Current tax is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantially enacted by the balance sheet date.

Deferred taxation is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated accounts. However, if the deferred tax arises from the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting, nor taxable profit or loss, it is not accounted for. Deferred tax is determined using tax rates and laws that have been enacted (or substantially enacted) by the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

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

#### **EQUITY INSTRUMENTS**

An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. Equity instruments issued by the Group are recorded at the proceeds received, net of any direct issue costs.

#### SHARE BASED PAYMENTS

The Group has applied the requirements of IFRS 2 'Share Based Payments'.

The Group issues equity settled share based payments to certain directors, senior managers and consultants. Equity settled share based payments are measured at fair value (excluding the effect of non-market based vesting conditions) at the date of grant. The fair value determined at the grant date of the equity settled share based payments is expensed on a straight line basis over the vesting period, based on the Group's estimate of shares that will eventually vest and adjusted for the effect of non-market based vesting conditions.

### **EMPLOYEE BENEFITS**

Provision is made in the financial statements for all employee benefits. Liabilities for wages and salaries including non-monetary benefits and annual leave obliged to be settled within twelve months of the balance sheet date, are recognised within accruals. The Group issues equity settled share based payments to certain directors, senior managers and consultants. Pension contributions are made in respect of the Group's employees based in Australia and are charged to the income statement in the period to which the contributions relate.

#### **RESEARCH AND DEVELOPMENT EXPENDITURE**

Research and development expenditure is expensed.

### 2. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The critical accounting estimates and judgements made by the Group regarding the future or other key sources of estimation, uncertainty and judgement that may have a significant risk of giving rise to a material adjustment to the carrying values of assets and liabilities within the next financial year are:

#### **IMPAIRMENT OF EXPLORATION AND EVALUATION ASSETS**

At each reporting date, the Group assesses whether there is any indication that an asset may be impaired. Where an indication of impairment exists, the Group makes a formal estimate of recoverable amount. Where the carrying amount of an asset exceeds its recoverable amount the asset is considered impaired and is written down to its recoverable amount.

Recoverable amount is the greater of fair value less costs to sell and value in use. It is determined for an individual asset unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

### GOODWILL

The Group tests annually whether goodwill has suffered any impairment, in accordance with the accounting policy. The recoverable amounts of cash-generated units will be determined based on value-in-use calculations. These calculations will require the use of estimates (see note 11).

### SHARE BASED PAYMENTS

In determining the fair value of equity settled share based payments and the related charge to the income statement, the Group makes assumptions about future events and market conditions. In particular, judgement must be made as to the likely number of shares that will vest and the fair value of each award granted. The fair value is determined using a valuation model which is dependent on further estimates, including the Group's future dividend policy, the timing with which options will be exercised and the future volatility in the price of similar potash companies. Such assumptions are based on publicly available information and reflect market expectations and advice taken from qualified personnel. Different assumptions about these factors to those made by the Group could materially affect the reported value of share based payments.

### 3. SEGMENTAL ANALYSIS

Management has determined the operating segments by considering the business from both a geographic and product perspective. For management purposes, the Group is currently organised into two operating divisions: resource evaluation and exploitation and environmental solutions. These divisions are the business segments for which the Group reports its segment information internally to the Board of Directors. The Group's operations are predominantly in the United Kingdom, the United States of America and Australia.

	UK		ates of America		Australia			
	Resource evaluation and exploration £000s	Resource evaluation and exploration £000s	Environmental solutions £000s	Resource evaluation and exploration £000s	Environmental solutions £000s	Unallocated £000s	Consolidation adjustments £000s	Total £000s
Year ended 31 March 2012								
Operating loss Finance costs	(672)	(5,175)	(181) -	(52,545) -	(293)	(51,772)	47,364	(63,274)
Finance income	9	4	-	-	2	149	-	164
Loss before taxation Taxation	(663) 512	(5,171)	(181) -	(52,545) 2,494	(291)	(51,623) -	47,364 -	(63,110) 3,006
Loss for the year from continuing operations	(151)	(5,171)	(181)	(50,051)	(291)	(51,623)	47,364	(60,104)
Total assets Total liabilities	46,908 (22,038)	969 (5,180)	- (182)	3,335 (1,697)	29 (162)	70,127 (2,962)	(17,199) 22,742	104,169 (9,479)
Net assets	24,870	(4,211)	(182)	1,638	(133)	67,165	5,543	94,690
Capital expenditure Depreciation and amortisation Impairment charge Acquisition costs Exploration expensed	11,526 1 38 - -	770 - 4,945 -	- - 178 -	258 - 51,770 -	- 250 -	102 21 - -	- - - -	12,656 59 57,143 -

	UK	United S	tates of America		Australia			
	Resource	Resource		Resource				
	evaluation and	evaluation and	Environmental	evaluation and	Environmental			
	exploration	exploration	solutions	exploration	solutions	Unallocated	Consolidation	Total
	£000s	£000s	£000s	£000s	£000s	£000s	adjustments	£000s
Year ended 31 March 2011								
Operating loss	(301)	(406)	(18)	(124)	(4)	(6,860)	-	(7,713)
Finance costs	(001)	(100)	()	( • = •)	( .)	(0,000)	-	(-,,
Finance income	-	-	-	3	-	42	-	45
Loss before taxation	(301)	(406)	(18)	(121)	(4)	(6,818)	-	(7,668)
Taxation	-	-	-	529	49	-	-	578
(Loss)/profit for the year from continuing								
operations	(301)	(406)	(18)	408	45	(6,818)	-	(7,090)
Total assets Total liabilities	32,406 (7,385)	5,067 (4,147)	177 (180)	54,832 (3,573)	307 (153)	24,805 (1,541)	( . ,	112,550 (11,935)
Net assets	25,021	920	(3)	51,259	154	23,264	-	100,615
Capital expenditure Depreciation and	25,652	2,882	-	166	-	37	-	28,737
amortisation	-	-	-	1	-	1	-	2
Impairment charge	-	-	-	-	-	732	-	732
Acquisition costs	-	-	-	-	-	48	-	48
Exploration expensed	365	132	-	-	-	-	-	497

### 4. SUMMARY OF ADMINISTRATIVE EXPENSES

The Group made impairment charges of £16,601,000 in Auspotash Corporation, £171,000 in Queensland Potash Pty Limited, £20,475,000 in Adavale Holdings Pty Limited, £14,523,000 in Derby Salts Pty Limited, £173,000 in Bicarb Sequestration Pty Limited, £77,000 in  $CO_2$  Energy Storage Pty Limited, £4,945,000 in Dakota Salts LLC and £178,000 in  $CO_2$  Energy Storage Limited. The Focus of the Company is the Flagship York Potash Project and consistent with this focus, the Company has written down the value of the remainder of the portfolio. With each impairment, the intangible exploration assets and any goodwill held by the relevant companies were impaired. The total expense recognised within the income statement in relation to impairment charges is £57,143,000 (2011: £732,000) (see note 11).

The Company made impairment charges in respect of its investments in, and loans receivable by, Auspotash Corporation, Queensland Potash Pty Limited, Adavale Holdings Pty Limited, Derby Salts Pty Limited, Bicarb Sequestration Pty Limited, CO<sub>2</sub> Energy Storage Pty Limited, Dakota Salts LLC and CO<sub>2</sub> Energy Storage Limited (see notes 12 and 14).

	2012	2011
	£000s	£000s
Auditors' remuneration		
Fees payable to the Company's auditor for the audit of the Group's consolidated accounts		
(including £19,000 in respect of the Company (2011: £18,000))	42	38
Fees payable to the Company's auditors and their associates for other services to the Group		
- The audit of the Company's subsidiaries pursuant to legislation	5	5
- Accrued for tax compliance	4	4
Impairment	57,143	3
Depreciation	54	2
Research and development	25	28
Foreign exchange gains/(losses)	22	(37)

6. FINANCE INCOME AND COSTS		
	2012	2011
	£000s	£000s
Bank interest received	164	45

7. STAFF NUMBERS AND COSTS (INCLUDING DIRECTORS)		
	2012 Number	2011 Number
Average number of staff (including Directors)	21	7
Staff costs (including Directors) during the year were:		
	2012	2011
	£000s	£000s
Wages and salaries	1,725	324
Bonuses	243	-
Social Security	137	5
Pension	39	2
Other benefits	28	2
	2,172	333

Directors remuneration during the year was:

	Wages and Salaries £000s	Bonuses £000s	Pension contributions £000s	Compensation for loss of office £000s	Other benefits £000s	Total £000s
Year ended 31 March 2012						
RJ Scrimshaw	34	-	-	-	-	34
CN Fraser	260	96	-	-	5	361
AM Lindsay	165	-	-	-	5	170
CJ Catlow	28	-	-	-	-	28
Sir David Higgins	1	-	-	-	-	1
Lord Hutton	5	-	-	-	-	5
Prof MR Mainelli	25	-	-	-	-	25
RO'D Poulden	20	-	-	17	-	37
DCW Stonley	25	-	-	-	-	25
PJE Woods	25	-	-	-	-	25
	588	96	-	17	10	711

There were no contributions to pension schemes (2011: £nil). Details of the share options issued to the Directors during the year are given in note 18.

	Wages and Salaries £000s	Bonuses £000s	Pension contributions £000s	Compensation for loss of office £000s	Other benefits £000s	Total £000s
Year ended 31 March 2011						
RJ Scrimshaw	3	-	-	-	-	3
CN Fraser	54	-	-	-	1	55
AM Lindsay	41	-	-	-	1	42
CJ Catlow	29	-	-	-	-	29
JC Harrison	23	-	-	30	-	53
Prof MR Mainelli	10	-	-	-	-	10
RO'D Poulden	60	-	-	-	-	60
DCW Stonley	10	-	-	-	-	10
	230	-	-	30	2	262

Key management are those persons having authority and responsibility for planning, controlling and directing the activities of the Group. The Directors are considered to be the key management personnel of the Group.

Key management personnel received the following compensation during the year:

	2012 £000s	2011 £000s
Short-term employee benefits including social security costs Share based payments	750 425	267 1,368
	1,175	1,635

Share options held by the Directors at the year-end were:

	Grant date	Number of options (000s)	Exercise price £	Vesting date	Expiry date
CJ Catlow	26 March 2010	25,000	0.0450	26 March 2010	25 March 2015
	26 March 2010	25,000	0.0450	19 January 2011	25 March 2015
RJ Scrimshaw	16 December 2010	12,500	0.2500	16 December 2010	15 December 2015
	16 December 2010	12,500	0.3500	16 December 2010	15 December 2015
	16 December 2010	12,500	0.4500	16 December 2010	15 December 2015
CN Fraser	17 January 2011	10,000	0.1970	17 January 2011	31 December 2013
AM Lindsay	17 January 2011	4,000	0.1970	17 January 2012	31 December 2013
	30 March 2011	1,747	0.2000	30 March 2012	29 March 2014
Lord Hutton	30 January 2012	1,800	0.3000	30 January 2015	29 January 2022

# 8. TAXATION

8. IAXAIIUN		
	2012	2011
	£000s	£000s
Corporation tax		
Current year	-	(49)
Deferred tax		
Effect of change in tax rate	(775)	(529)
Release of deferred tax on impairment	(2,231)	-
	(3,006)	(578)
The credit for the year can be reconciled to the loss per the income statement as follows:		
	2012	2011
	£000s	£000s
Loss on ordinary activities before taxation	(63,110)	(7,668)
Loss on ordinary activities multiplied by the standard rate of corporation taxation in the UK of		
26% (2011: 28%)	(16,408)	(2,147)
Taxation effects of:		
Expenses not deductible for tax purposes	15,282	1,722
Effect of change in tax rate	(775)	(529)
Release of deferred tax on impairment	(2,231)	-
Trading losses utilised	(43)	(13)
Trading losses not utilised	1,183	438
Research and development	-	(49)
Capital allowances in excess of depreciation	(14)	
Tax credit for the year	(3,006)	(578)

The Group has unused tax losses of £8,146,000 (2011: £4,535,000). The related deferred tax asset has not been recognised in the accounts due to the uncertainty surrounding its recoverability. The deferred tax asset can be recovered against suitable future trading profits.

# 9. LOSS PER SHARE

Basic and diluted loss per share

Basic loss per share is calculated by dividing the earnings attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the year.

Given the Group's reported loss for the year, share options are not taken into account when determining the weighted average number of ordinary shares in issue during the year and therefore the basic and diluted earnings per share are the same.

	2012	2011
	£000s	£000s
Loss for the purposes of basic earnings per share being net loss attributable to equity		
shareholders of the parent	(60,104)	(7,090)
Loss for the purpose of diluted earnings per share	(60,104)	(7,090)
	2012	2011
	Number	Number
	000s	000s
Number of shares		
Weighted average number of ordinary shares for the purpose of basic and diluted earnings		
per share	1,082,989	733,827
If the Company's share options were taken into consideration in respect of the Company's weight	hted average number c	of ordinary
shares for the purpose of diluted earnings per share, it would be as follows:		0011
	2012 Number	2011 Number
	Number 000s	Number 000s
	0005	0005
Number of shares		700.000
Weighted average number of ordinary shares for the purposes of diluted earnings per share	1,147,453	790,939

(1.0)p

(5.6)p

### 10. PLANT AND EQUIPMENT

Group	Computer equipment £000s	Fixtures & furniture £000s	Plant & machinery £000s	Motor vehicles £000s	Leasehold improvements £000s	Total £000s
Cost						
At 1 April 2010 Additions	7 12	- 25	-	-	-	7 37
			-	-	-	
At 31 March 2011 Additions	19 47	25 20	- 86	- 58	- 59	44 270
At 31 March 2012	66	45	86	58	59	314
Depreciation At 1 April 2010	6	-	-	-	-	6
Charge for the year	1	1	-	-	-	2
At 31 March 2011 Charge for year	7 11	1 7	- 18	- 8	- 9	8 53
At 31 March 2012	18	8	18	8	9	61
Net book value At 31 March 2012	48	37	68	50	50	253
At 31 March 2011	12	24	_	-	-	36
Company				Computer equipment £000s	Leasehold improvements £000s	Total £000s
<b>Cost</b> At 1 April 2010 Additions				5 1	-	5 1
At 31 March 2011 Additions				6 28	- 59	6 87
At 31 March 2012				34	59	93
<b>Depreciation</b> At 1 April 2010 Charge for the year				5	-	5
At 31 March 2011 Charge for year				5 3	- 9	5 12
At 31 March 2012				8	9	17
Net book value At 31 March 2012				26	50	76
At 31 March 2011				1	-	1

### 11. INTANGIBLE ASSETS

	Exploration			
	costs and rights	Goodwill	Software	Total
Group	£000s	£000s	£000s	£000s
Cost				
At 1 April 2010	52,446	2,528	-	54,974
Additions	3,148	-	-	3,148
Additions acquired on acquisition of subsidiary	25,552	6,644	-	32,196
Foreign exchange movement	1,602	(38)	-	1,564
As at 31 March 2011	82,748	9,134	-	91,882
Additions	12,338	-	48	12,386
Additions acquired on acquisition of subsidiary	-	-	-	-
Foreign exchange movement	63	(55)	-	8
As at 31 March 2012	95,149	9,079	48	104,276
Provision for impairment/amortisation				
At 1 April 2010	(682)	-	-	(682)
Impairment	(3)	-	-	(3)
At 31 March 2011	(685)	-	-	(685)
Impairment/amortisation	(54,707)	(2,436)	(6)	(57,149)
At 31 March 2012	(55,392)	(2,436)	(6)	(57,834)
Net book value				
31 March 2012	39,757	6,643	42	46,442
31 March 2011	82,063	9,134	-	91,197

### GOODWILL

The goodwill acquired in January 2011 as part of the business combination relating to York Potash Limited has been allocated to the cash generating unit (CGU) of resource evaluation and exploitation in the geographical location of the UK, which is expected to benefit from the business combination.

The recoverable amount of the goodwill on the acquisition of York Potash Limited has been assessed by reference to value in use. The valuation is based on cash flow projections that incorporate best estimates of selling prices, production rates, future capital expenditure and production costs. The growth rate of 2% was incorporated into the discount rate.

The cash flow projections are based on long term plans covering the expected life of the operation. The expected life is more than 25 years. The valuations are particularly sensitive to changes in assumptions about selling prices, volumes of production and operating costs. Long term average selling prices are forecast taking account of market data in respect of potash and management's current expectations. Forecasts of volumes of production and operating costs are based on management's current expectations.

Discount rates represent an estimate of the rate the market would apply having regard to the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted. A discount rate of 8 per cent, which is considered to be appropriate for a project of this nature and size, has been applied to the pre-tax cash flows.

No reasonably possible change in the key assumptions on which York Potash Limited's recoverable amount is based would cause its value to fall short of its carrying amount as at 31 March 2012.

#### IMPAIRMENT

The impairment charge to exploration costs and rights of £54,707,000 relates to Auspotash Corporation, Queensland Potash Pty Limited, Adavale Holdings Pty Limited, Derby Salts Pty Limited, Bicarb Sequestration Pty Limited,  $CO_2$  Energy Storage Pty Limited, Dakota Salts LLC and  $CO_2$  Energy Storage Limited (see note 4). The Impairment charge to goodwill of £2,436,000 relates to Auspotash Corporation. Auspotash Corporation, Queensland Potash Pty Limited, Derby Salts Pty Limited, Bicarb Sequestration Pty Limited, Bicarb Sequestration Pty Limited, Bicarb Sequestration Pty Limited, CO<sub>2</sub> Energy Storage Pty Limited and Potash Pty Limited, Derby Salts Pty Limited, Bicarb Sequestration Pty Limited, Bicarb Sequestration Pty Limited, Bicarb Sequestration Pty Limited, CO<sub>2</sub> Energy Storage Pty Limited and CO<sub>2</sub> Energy Storage Limited were fully impaired. Adavale Holdings Pty Limited and Dakota Salts LLC were impaired by reference to fair value on an open market basis (see note 4).

### 11. INTANGIBLE ASSETS

	Exploration		
	costs and rights	Software	Total
Company	£000s	£000s	£000s
Cost			
At 1 April 2010 and 31 March 2011	660	-	660
Additions	-	4	4
At 31 March 2012	660	4	664
Provision for impairment/amortisation			
At 1 April 2010 and 31 March 2011	(660)	-	(660)
Amortisation	-	(1)	(1)
At 31 March 2012	(660)	(1)	(661)
Net book value			
31 March 2012	-	3	3
31 March 2011	-	-	-

### 12. INVESTMENTS IN SUBSIDIARIES

Company	2012 £000s	2011 £000s
At 1 April 2011	69,539	44,217
Additions	-	25,322
Impairment	(41,822)	-
At 31 March 2012	27,717	69,539

The impairment charge of £41,822,000 relates to the Company's investments in Auspotash Corporation, Adavale Holdings Pty Limited, Derby Salts Pty Limited, Bicarb Sequestration Pty Limited,  $CO_2$  Energy Storage Pty Limited, Dakota Salts LLC and  $CO_2$  Energy Storage Limited (see note 4).

At the year-end date, the Company's investments in subsidiaries were:

Name	Country of incorporation	Activity	Percentage of ordinary share capital held by the Company
York Potash Limited	UK	Resource exploration	100%
Sirius Exploration Limited	UK	Dormant	100%
Sirius Resources Limited	UK	Dormant	100%
Sirius Potash Limited	UK	Dormant	100%
Auspotash Corporation **	Canada	Holding company	100%
Queensland Potash Pty Limited **	Australia	Resource exploration *	100%
Adavale Holdings Pty Limited **	Australia	Resource exploration	100%
Sirius Minerals (Australia) Pty Limited	Australia	Management services company	100%
Derby Salts Pty Limited **	Australia	Resource exploration	100%
Bicarb Sequestration Pty Limited **	Australia	Environmental solutions	100%
CO <sub>2</sub> Energy Storage Pty Limited **	Australia	Environmental solutions	100%
Dakota Salts LLC **	USA	Resource exploration	100%
CO <sub>2</sub> Energy Storage Limited **	USA	Environmental solutions	100%

\*This investment is held indirectly by the Company through Auspotash Corporation.

\*\* These investments were impaired during the year.

# 13. OTHER RECEIVABLES

	2012	2011
	£000s	£000s
Group		
Other debtors	953	260
Prepayments	750	47
	1,703	307
Company		
Other debtors	56	56
Prepayments	60	47
	116	103

The Directors consider that the carrying amount of other receivables approximates to their fair value.

No bad and doubtful debt charges have been recognised by the Group in the income statement during the year (2011: £nil).

At 31 March 2012, no receivables were either impaired (2011: £nil) or past due but not impaired (2011: £nil).

14. LOANS TO SUBSIDIARIES		
	2012	2011
Company	£000s	£000s
York Potash Limited	13,801	454
Dakota Salts LLC	400	2,666
Sirius Minerals (Australia) Pty Limited	1,552	45
Adavale Holdings Pty Limited	-	288
Queensland Potash Pty Limited	-	9
Derby Salts Pty Limited	-	13
Bicarb Sequestration Pty Limited	-	114
CO, Energy Storage Pty Limited	-	19
CO <sub>2</sub> Energy Storage Limited		177
	15,753	3,785

The loans to subsidiaries are non-interest bearing and are repayable on demand.

The Directors consider that the carrying amount of these loans approximate their fair value.

At 31 March 2012, the loans to Queensland Potash Pty Limited, Adavale Holdings Pty Limited, Derby Salts Pty Limited, Bicarb Sequestration Pty Limited, CO<sub>2</sub> Energy Storage Pty Limited, Dakota Salts LLC and CO<sub>2</sub> Energy Storage Limited were impaired (2011: £nil). The total impairment charge is £5,544,000. No loans were past due but not impaired (2011: £nil).

### 15. CASH AND CASH EQUIVALENTS

	2012 £000s	2011 £000s
Group Cash at bank	54,271	21,010
Cash and cash equivalents	2012 £000s	2011 £000s
Company Cash at bank	53,828	20,871

The Directors consider that the carrying amount of these assets approximates to their fair value.

The credit risk on liquid funds is limited because the counter-parties are banks with high credit ratings.

The Group and Company's cash at bank is held in the following currencies:

	2012 £000s	2011 £000s
Group		
Sterling	53,223	18,855
US Dollars	312	1,074
Canadian Dollars	25	32
Australian Dollars	711	1,049
	54,271	21,010
	2012	2011
	£000s	£000s
Company		
Sterling	53,086	18,851
US Dollars	256	1,045
Australian Dollars	486	975
	53,828	20,871

# 16. LOANS AND RECEIVABLES

2012	
LUIL	2011
£000s	£000s
1,500	-
	1,500

During the year a loan for  $\pounds1,500,000$  was issued to a third party. The loan bears interest at a fixed rate of 6% per annum and is payable monthly in arrears by the borrower.  $\pounds750,000$  of the loan is repayable in equal monthly instalments ending July 2013 and the remaining  $\pounds750,000$  of the loan is repayable in August 2013.

# 17. SHARE CAPITAL

	2012 £000s	2011 £000s
Allotted and called up 1,339,033,000 (2011: 1,032,578,000) ordinary shares of 0.25p each	3,348	2,581

On 23 November 2011 the Company issued 900,000 new ordinary shares of 0.25p each at a price of 6p per share, realising £55,000, following the exercise of share options.

On 31 January 2012 the Company issued 305,555,555 new ordinary shares of 0.25p each at a price of 18p per share, realising £55,000,000, in a share placing. Costs in relation to the share placing were £2,708,000.

### 18. SHARE BASED PAYMENTS

During the year, the movement in share options was as follows:

	Number of options 000s	Weighted Average exercise price £
At 31 March 2011 Issued during the year	130,343 13,175	0.1706 0.1931
At 31 March 2012	143,518	0.1727
Exercisable at 31 March 2012	130,343	0.1706
	Number of options 000s	Weighted Average exercise price £
At 31 March 2010 Issued during the year Exercised during the year Forfeited during the year	57,981 74,793 (931) (1,500)	0.0271 0.2560 0.0450 0.0450
At 31 March 2011	130,343	0.1706
Exercisable at 31 March 2011	113,550	0.1664

Details of the options issued during the year are as follows:

Recipient Grant date
Share price at date of grant (£)
Exercise price (£)
Volatility rate
Expected life (years)
Risk free rate
Dividend yield
Vesting date
Number of options (000s)
Fair value of options at date of grant (£000s)

- Recipient Grant date Share price at date of grant (£) Exercise price (£) Volatility rate Expected life (years) Risk free rate Dividend yield Vesting date Number of options (000s) Fair value of options at date of grant (£000s)
- Recipient Grant date Share price at date of grant (£) Exercise price  $(\mathfrak{L})$ Volatility rate Expected life (years) Risk free rate Dividend yield Vesting date Number of options (000s) Fair value of options at date of grant (£000s)
- Recipient Grant date Share price at date of grant (£) Exercise price  $(\mathfrak{L})$ Volatility rate Expected life (years) Risk free rate Dividend yield Vesting date Number of options (000s) Fair value of options at date of grant (£000s)

Tranche 1 Senior Manager 25 August 2011 0.088 0.191 82.45% 5 1.49% 0.00% 25 August 2014

### Tranche 4 Senior Manager 25 August 2011 0.088 0.105 82.45%

250

£11

5 1.49% 0.00% 25 August 2014 500 £28

#### **Tranche 7**

Senior Manager 1 November 2011 0.183 0.150 93.22% 5 1.24% 0.00% 1 November 2014 5,000 £675

#### Tranche 2

**Tranche 3** 

0.088

0.166

5

82.45%

1.49%

0.00%

625

£30

0.109

0.152

3

80.85%

1.46%

0.00%

1,000

0.263

0.300

З

77.90%

1.12%

0.00%

2,250

£281

5

**Tranche 9** 

Senior Manager

23 January 2012

23 January 2013

Tranche 11

£48

Senior Manager

25 August 2011

25 August 2014

**Tranche 6** 

Senior Manager

1 September 2011

1 September 2012

Senior Manager 25 August 2011 0.088 0.163 82.45% 5 1.49% 0.00% 25 August 2014 250 £12

#### **Tranche 5**

Senior Manager 25 August 2011 0.088 0 1 1 1 82.45% 5 1.49% 0.00% 25 August 2014 500 £27

#### Tranche 8

Senior Manager 1 December 2011 0.285 0.133 98.89% 5 1.19% 0.00% 1 December 2014 500 £118

### Tranche 10

Lord Hutton Senior Manager 30 January 2012 17 February 2012 0.208 0.203 0.300 0.121 80.89% 75.29% 5 1.04% 1.06% 0.00% 0.00% 30 January 2015 17 February 2015 1.800 500 £215 £71

The fair value of the options is measured by use of the Black Scholes model. The inputs into the model are noted in the tables above. Expected volatility was determined by calculating the historical volatility of the share price of similar potash companies over the previous 50 days.

The options outstanding at 31 March 2012 had a weighted average remaining contractual life of 4.2 years (2011: 4.5 years).

The fair value of the options determined at the grant date is expensed on a straight line basis over the vesting period.

The aggregate of the fair values of the options granted during the year is  $\pounds1,516,000$  of which  $\pounds223,000$  was expensed to the income statement (2011:  $\pounds4,865,000$ ). The fair value of the options that were exercised during the year is  $\pounds$ nil (2011:  $\pounds4,865,000$ ) and the fair value of the options that were forfeited during the year is  $\pounds$ nil (2011:  $\pounds56,000$ ). The fair value of options that were granted in the prior year but expensed during the year is  $\pounds1,125,000$ .

The total expense recognised within the income statement in relation to equity settled share based payment transactions in the year is £1,348,000 (2011: £4,768,000).

At the year-end, the share based payment reserve was made up as follows:

	2012 £000s	2011 £000s
Equity settled share based payments – directors	6,086	5,662
Equity settled share based payments – senior managers	1,062	178
Equity settled share based payments – consultants	233	193
Equity settled share based payments – professional advisers	128	128
Equity settled share based payments – asset acquisition	182	182
	7,691	6,343

#### 19. DEFERRED TAX LIABILITIES

Group	2012 £000s	2011 £000s
At 1 April 2011 Additions	9,701	3,233 6,644
Credit to income statement Foreign exchange movement	(3,006) (67)	(536) 360
At 31 March 2012	6,628	9,701

20. LOAN FROM SUBSIDIARY		
	2012	2011
Company	£000s	£000s
	1,104	1,104

All loans are interest free and repayable on demand. The Directors consider that the carrying amount of borrowings approximates to their fair values.

	2012	2011
Group	£000s	£000s
Trade payables	1,619	1,891
Other payables	193	79
Accruals	1,039	264
	2,851	2,234
	2012	2011
Company	£000s	£000s
Trade payables	192	162
Other payables	55	-
Accruals	75	109
	322	271

The Directors consider that the trade and other payables carrying amount approximates to their fair values.

#### 22. CASH OUTFLOW FROM OPERATING ACTIVITIES

Group	2012 £000s	2011 £000s
Loss before tax Depreciation	(63,110) 53	(7,668)
Finance income Amortisation	(164) 6	(45)
Impairment Share based payments – share options Share based payments – equity settled transactions	57,143 1,348 -	732 4,768 83
Operating cash flow before changes in working capital (Increase)/decrease in receivables Decrease/(increase) in payables	(4,724) (1,396) 617	(2,128) (167) 1,673
Net cash outflow from operating activities	(5,503)	(622)
Company	2012 £000s	2011 £000s
Loss before tax Depreciation	(50,552) 12	(5,975)
Finance income Amortisation	(146) 1	(42)
Impairment Share based payments Share based payments - equity settled transactions	47,366 1,348 -	3 4,768 83
Operating cash flow before changes in working capital (Increase)/decrease in receivables Decrease/(increase) in payables	(1,971) (14) 51	(1,163) (53) 16
Net cash outflow from operating activities	(1,934)	(1,200)

### 23. RELATED PARTY TRANSACTIONS

On 6 August 2011 the Company received notification that C&J Fraser Investments Pty Ltd, trustee of the Fraser Family Trust of which CN Fraser is a beneficiary, purchased 1,000,000 ordinary shares of 0.25p each at a price of 7.07p per share, in the market.

On 30 August 2011 the Company received notification that the Desmo Super Pty Limited, trustee of Desmo Superannuation Fund of which CN Fraser is a beneficiary, purchased 500,000 ordinary shares of 0.25p each at an average price of 9.44p per share, in the market.

On 23 November 2011 the Company received notification that Scrimshaw Nominees Pty Limited, trustee of the Scrimshaw Family Trust of which RJ Scrimshaw is a beneficiary, purchased 1,000,000 ordinary shares of 0.25p each at an average price of 23.65p per share, in the market.

On 30 January 2012 the Company issued 1,800,000 share options at an exercise price of 30p per share to Lord Hutton.

On 31 January 2012 the Company issued 19,000,000 new ordinary shares of 0.25p each at a price of 18p per share to RJ Scrimshaw as part of a share placing, realising £3,400,000.

During the year the Company was charged £37,000 (2011: £60,000) by Pacific Corporate Management Limited for the services of RO'D Poulden (see note 7).

During the year the Company was charged £25,000 (2011: £10,000) by Z/Yen Group Limited for the services of Prof MR Mainelli (see note 7).

During the year the Company loaned £17,511,000 (2011: £2,747,000) to its subsidiaries for working capital purposes (see note 14). The Company impaired its loans to Derby Salts Pty Limited, Bicarb Sequestration Pty Limited,  $CO_2$  Energy Storage Pty Limited and  $CO_2$  Energy Storage Limited (see note 4). The total impairment charge is £4,925,000. At the year-end, the Company had a loan receivable balance of £16,372,000 due from its subsidiaries (2011: £3,785,000).

During the year Sirius Minerals (Australia) Pty Limited, a subsidiary of the Company, was charged £21,000 (2011: £83,000) by Sigiriya Capital Pty Limited which is a related party to CN Fraser, for office related expenses. At the year-end, Sirius Minerals (Australia) Pty Limited had a payable balance of £nil (2011: £83,000) due to Sigiriya Capital Pty Limited.

Details of short-term employee benefits to the Directors, the key management personnel of the Company, are given in note 7.

#### 24. FINANCIAL INSTRUMENTS

#### **Classification of financial instruments**

With the exception of investments held by the Company, which are held at cost, all other Group and Company financial assets as disclosed in notes 13 to 16 are classified as loans and receivables and their carrying values approximate to their fair values. All of the Group and Company's financial liabilities are held at amortised cost.

#### **Capital management**

The Group's and Company's objectives when managing capital are to safeguard the Group's and Company's ability to continue as a going concern, to provide returns for shareholders and to maintain an optimal capital structure to reduce the cost of capital. The Group and Company define capital as being share capital plus reserves. The Board of Directors monitors the level of capital as compared to the Group's and Company's commitments and adjusts the level of capital as it is determined to be necessary, by issuing new shares. The Group and Company are not subject to any externally imposed capital requirements.

#### **Credit risk**

The Group's credit risk is primarily attributable to its other receivables, cash and cash equivalents and loan to a third party. The Group has implemented policies that require appropriate credit checks. The amount of exposure to any individual counterparty is reviewed regularly by the Board.

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the yearend date was:

	2012 £000s	2011 £000s
Group		
Other receivables	953	260
Cash and cash equivalents	54,271	21,010
Loan to third party	1,500	-
	56,724	21,270

The total of other receivables, cash and cash equivalents and loan to third party constitutes all of the financial assets held by the Group within the IAS 39 category loan and receivables. The fair value of the loan to third party is not materially different from its carrying value.

	2012 £000s	2011 £000s
Company		
Other receivables	56	56
Cash and cash equivalents	53,828	20,871
Loans to subsidiaries	15,753	3,785
	69,637	24,712

The total of other receivables, cash and cash equivalents and loans to subsidiaries constitutes all of the financial assets held by the Company within the IAS 39 category loans and receivables. The fair value of the loans to subsidiaries are not materially different from its carrying value.

#### Interest rate risk

The Group's interest bearing assets comprise cash and cash equivalents earning interest at a variable rate and a loan to a third party earning interest at a fixed rate of 6%. The Group borrowing at the year-end was £nil (2011: £nil) and the Company borrowing at the year-end was £1,104,000 (2011: £1,104,000).

The Group has not entered into any derivative transactions during the period under review.

The Group's cash and cash equivalents earned interest from various instant access deposits and fixed term deposits in Sterling and Australian Dollars. Cash and cash equivalents of the Group and Company are disclosed above under credit risk. The impact of a movement of 5% in the rate of interest on the Group's and Company's cash and cash equivalents will have no material impact to the Group and Company's results and financial positions as at 31 March 2012 and 31 March 2011.

#### Liquidity risk

The Group actively maintains cash balances that are designed to ensure that there are sufficient available funds for operations and planned expansions. The Group monitors its levels of working capital to ensure that it can meet its payments as they fall due. The following table shows the contractual maturities of the Group and Company's financial liabilities, all of which are measured at amortised cost:

	Trade & other payables £000s	Accruals £000s	Total £000s
Group At 31 March 2012			
6 months or less	1,812	1,039	2,851
Total contractual cash flows	1,812	1,039	2,851
Total amount of financial liabilities measured at amortised cost	1,812	1,039	2,851
	Trade & other payables £000s	Accruals £000s	Total £000s
Group At 31 March 2011 6 months or less	1,970	264	2,234
Total contractual cash flows	1,970	264	2,234
	1,970	204	
Total amount of financial liabilities measured at amortised cost	1,970	264	2,234

	Trade payables £000s	Accruals £000s	Loan from subsidiary £000s	Total £000s
Company As at 31 March 2012				
6 months or less	247	75	1,104	1,426
Total contractual cash flows	247	75	1,104	1,426
Carrying amount of financial liabilities measured				
at amortised cost	247	75	1,104	1,426
	Trade		Loan from	
	payables £000s	Accruals £000s	subsidiary £000s	Total £000s
Company As at 31 March 2011				
6 months or less	162	109	1,104	1,375
Total contractual cash flows	162	109	1,104	1,375
Carrying amount of financial liabilities measured				
at amortised cost	162	109	1,104	1,375

#### Foreign currency exchange rate risk

The reporting currency of the Group and Company is Sterling. Transactions denominated in a foreign currency are translated into Sterling at the rate of exchange ruling at the date of the transaction. At the balance sheet date, monetary assets and liabilities denominated in foreign currency are translated at the rate ruling at that date. All exchange differences are charged or credited to the income statement as appropriate.

On consolidation, the assets and liabilities of foreign operations, which have a functional currency other than Sterling, are translated into Sterling at foreign exchange rates ruling at the balance sheet date. The revenues and expenses of these subsidiaries are translated into Sterling at average rates for the year. All exchange differences are recognised within the balance sheet under equity.

The impact of a movement of 5% in foreign exchange rates when translating the accounts of the foreign subsidiaries into Sterling would be  $\pounds$ 1,692,000 (2011:  $\pounds$ 43,000) to the Group's results and  $\pounds$ 2,827,000 (2011:  $\pounds$ 2,746,000) to the Group's financial position as at 31 March 2012.

#### 25. COMMITMENTS

In order to maintain current rights of tenure to exploration tenements, the Group is required to perform minimum exploration work to meet the minimum expenditure requirements specified by various governments. The Group is also required to make payments to landowners under option agreements to secure mineral rights. These obligations are subject to periodic renegotiation. These obligations are not provided for in the consolidated accounts as at 31 March 2012 and are payable as follows:

	2012 £000s	2011 £000s
Within one year After one year but not more than five years	961 3,597	542 2,032
	4,558	2,574

# OTHER

NOTICE OF AGM GLOSSARY ADDITIONAL INFORMATION DIRECTORS AND ADVISERS COMPANY INFORMATION NOTES

# **NOTICE OF AGM**

# SIRIUS MINERALS PLC

Incorporated and registered in England and Wales with registered number 04948435

### NOTICE OF ANNUAL GENERAL MEETING

NOTICE IS HEREBY GIVEN that the annual general meeting of Sirius Minerals Plc (the "Company") will be held at the Imperial Suite, Crown Spa Hotel, Esplanade, Scarborough YO11 2AG on Wednesday 26 September 2012 at 11:30 a.m. for the following purposes:

# To consider and, if thought fit, to pass resolutions 1 to 8, which are proposed as ordinary resolutions and resolution 9, which is proposed as a special resolution:

#### **ORDINARY RESOLUTIONS**

- 1. To receive the accounts of the Company for the year ended 31 March 2012 and the reports of the directors and auditors.
- 2. To elect Lord Hutton, being a director appointed since the last annual general meeting, as a director of the Company.
- 3. To elect Sir David Higgins, being a director appointed since the last annual general meeting, as a director of the Company.
- 4. To elect JH Murray, being a director appointed since the last annual general meeting, as a director of the Company.
- 5. To re-elect CJ Catlow, who retires by rotation in accordance with the Company's articles of association and who, being eligible, offers himself for re-election as a director of the Company.
- 6. To re-appoint Nexia Smith & Williamson as auditors of the Company until the conclusion of the next annual general meeting in 2013.
- 7. To authorise the directors to fix the auditors' remuneration.

8. To generally and unconditionally authorise the directors in accordance with section 551 of the Companies Act 2006 ("the Act") to exercise all the powers of the Company to allot shares or grant rights to subscribe for or convert any security into shares in the Company, up to an aggregate nominal amount of £2,086,749.60 provided that the authority conferred by this resolution shall apply in addition to all existing authorities and will expire on the date being 5 years from the conclusion of this annual general meeting, save that the Company may, before such expiry, make an offer, agreement or other arrangement which would or might require shares to be allotted or rights to subscribe for or convert any security into shares in the Company to be granted after such expiry and the directors may allot such shares or grant such rights to subscribe for or convert any security into shares in the Company in pursuance of such offer, agreement or other arrangement as if the authority conferred hereby had not expired.

#### SPECIAL RESOLUTIONS

9. Subject to the passing of resolution 8 above, to generally authorise the directors in accordance with section 570 of the Act to allot equity securities (as defined in section 560 of the Act) in the Company, for cash, as if sub-section (1) of section 561 of the Act or any pre-emption provisions contained in the Company's articles of association did not apply to any such allotment, provided that this power shall be limited to any allotment up to an aggregate nominal amount of £2,086,749.60 provided that the authority conferred by this resolution shall apply in addition to all existing authorities and will expire on the date being 5 years from the conclusion of this annual general meeting, save that the Company may, before such expiry, make an offer, agreement or other arrangement which would or might require equity securities to be allotted after such expiry and the directors may allot such equity securities in pursuance of such offer, agreement or other arrangement as if the authority conferred hereby had not expired.

By order of the Board

Jas Sembi Company Secretary Date: 9 August 2012

Third Floor, Greener House 68 Haymarket, London SW1Y 4RF

# **NOTICE OF AGM**

#### ENTITLEMENT TO ATTEND AND VOTE

(I) Only those shareholders registered in the register of members of the Company as at 6:00 p.m. on 24 September 2012 or, if this meeting is adjourned, 6:00 p.m. on the day two days prior to the adjourned meeting shall be entitled to attend and vote at the annual general meeting in respect of the number of shares registered in their name at that time. Changes to entries on the relevant register of members after 6:00 p.m. on 24 September 2012 or, if this meeting is adjourned, 6:00 p.m. on the day two days prior to the adjourned meeting is adjourned, 6:00 p.m. on the relevant register of members after 6:00 p.m. on 24 September 2012 or, if this meeting is adjourned, 6:00 p.m. on the day two days prior to the adjourned meeting, shall be disregarded in determining the rights of any person to attend or vote at this annual general meeting.

#### **APPOINTMENT OF PROXIES**

- (II) A shareholder entitled to attend and vote at this annual general meeting is entitled to appoint one or more proxies to exercise all or any of his/her rights to attend, speak and vote at the annual general meeting. You can only appoint a proxy using the procedures set out in these notes and the notes to the proxy form.
- (III) A proxy does not need to be a shareholder of the Company but must attend the annual general meeting to represent you. Details of how to appoint the Chairman of the annual general meeting or another person as your proxy using the proxy form are set out in the notes to the proxy form. If you wish your proxy to speak on your behalf at the annual general meeting, you will need to appoint your own choice of proxy (not the Chairman) and give your instructions directly to them.
- (IV) A shareholder may appoint more than one proxy provided each proxy is appointed to exercise rights attached to a different share or shares held by the shareholder. You may not appoint more than one proxy to exercise rights attached to any one share. Details of how to appoint more than one proxy are set out in the notes to the proxy form.
- (V) A vote withheld is not a vote in law, which means that the vote will not be counted in the calculation of votes for or against the resolution. If no voting indication is given, your proxy will vote or abstain from voting at his or her discretion. Your proxy will vote (or abstain from voting) as he or she thinks fit in relation to any other matter which is put before the annual general meeting.
- (VI) The notes to the proxy form explain how to direct your proxy, how to vote on each resolution or how to withhold their vote.

#### To appoint a proxy using the proxy form, the form must be:

- completed and signed;
- sent or delivered to Neville Registrars Limited Neville House, 18 Laurel Lane, Halesowen, West Midlands, B63 3DA; and
- received by Neville Registrars Limited no later than 11:30 a.m. on 24 September 2012 or if the meeting is adjourned, 11:30 a.m. on the day two days prior to the adjourned meeting.

In the case of a shareholder which is a company, the proxy form must be executed under its common seal or signed on its behalf by an officer of the company or an attorney for the company. The original of any power of attorney or any other authority under which the proxy form is signed (or a duly certified copy of such power or authority) must be included with the proxy form.

#### INSTRUCTIONS FOR ELECTRONIC PROXY APPOINTMENT THROUGH CREST

- (VII) CREST members who wish to appoint a proxy or proxies by utilising the CREST electronic proxy appointment service may do so for the meeting to be held on 26 September 2012 and any adjournments thereof by utilising the procedures described in the CREST manual. CREST Personal Members or other CREST Sponsored Members, and those CREST Members who have appointed a voting service provider(s), should refer to their CREST sponsor or voting service provider(s), who will be able to take appropriate action on their behalf.
- (VIII)In order for a proxy appointment made by means of CREST to be valid, the appropriate CREST message (a "CREST Proxy Instruction") must be properly authenticated in accordance with Euroclear UK & Ireland ("EUI")'s specifications and must contain the information required for such instructions, as described in the CREST manual. The message must be transmitted so as to be received by the issuer's agent (ID 7RA11) no later than 11:30 a.m. on 24 September 2012 or if the meeting is adjourned, 11:30 a.m. on the day two days prior to the adjourned meeting. For this purpose, the time of receipt will be taken to be the time (as determined by the time stamp applied to the message by the CREST Applications Host) from which the issuer's agent is able to retrieve the message by enquiry to CREST in the manner prescribed by CREST.
- (IX) CREST members and, where applicable, their CREST sponsors or voting service providers should note that EUI does not make available special procedures in CREST for any particular messages. Normal system timings and limitations will therefore apply in relation to the input of CREST Proxy Instructions. It is the responsibility of the CREST member concerned to take (or, if the CREST member is a CREST Personal Member or CREST Sponsored Member or has appointed a voting service provider(s) to procure that his CREST sponsor or voting service provider(s) take(s)) such action as shall be necessary to ensure that a message is transmitted by the CREST system by any particular time. In this connection, CREST members and, where applicable, their CREST sponsors or voting service providers are referred, in particular, to those sections of the CREST manual concerning practical limitations of the CREST system and timings.
- (X) The Company may treat as invalid a CREST Proxy Instruction in the circumstances set out in Regulation 35(5)(a) of the CREST Regulations.

# APPOINTMENT OF PROXY BY JOINT SHAREHOLDERS

(XI) In the case of joint holders, where more than one of the joint holders purports to appoint a proxy, only the appointment submitted by the most senior holder will be accepted. Seniority is determined by the order in which the names of the joint holders appear in the Company's register of members in respect of the joint holding (the first-named being the most senior).

### **CHANGING PROXY INSTRUCTIONS**

(XII) To change your proxy appointments simply submit a new proxy appointment using the methods set out above. Note that the cut-off time for receipt of proxy appointments (see above) also applies in relation to amended instructions; any amended proxy appointment received after the relevant cut-off time will be disregarded.

Where you have appointed a proxy using the proxy form and would like to change the instructions using another proxy form, please contact Neville Registrars Limited, Neville House, 18 Laurel Lane, Halesowen, West Midlands, B63 3DA, telephone: 0121 585 1131 or fax: 0121 585 1132. If you submit more than one valid proxy appointment, the appointment received last before the latest time for the receipt of proxies will take precedence.

#### **TERMINATION OF PROXY APPOINTMENTS**

(XIII) In order to revoke a proxy instruction you will need to send a signed hard copy notice clearly stating your intention to revoke your proxy appointment to Neville Registrars Limited. In the case of a shareholder which is a company, the revocation notice must be executed under its common seal or signed on its behalf by an officer of the company or an attorney for the company. The original of any power of attorney or any other authority under which the revocation notice is signed (or a duly certified copy of such power or authority) must be included with the revocation notice. The revocation notice must be received by the Company no later than 11:30 a.m. on 24 September 2012 or if the meeting is adjourned, 11:30 a.m. on the day two days prior to the adjourned meeting, and a copy must be sent or delivered to Neville Registrars Limited, Neville House, 18 Laurel Lane, Halesowen, West Midlands, B63 3DA.

Appointment of a proxy does not preclude you from attending the annual general meeting and voting in person. If you have appointed a proxy and attend the annual general meeting in person and vote in respect of a particular resolution then your proxy's vote, if he or she makes one, will not be counted.

#### **COMMUNICATION**

(XIV) Except as provided above, shareholders who have general queries about the annual general meeting should use the following means of communication:

- calling Neville Registrars on 0121 585 1131 (calls cost 10p per minute plus network extras); or
- by email to reece@nevilleregistrars.co.uk

You may not use any electronic address provided in any documentation to communicate with the Company for any purposes other than those expressly stated.

#### **EXPLANATORY NOTES TO THE PROPOSED RESOLUTIONS**

- (XV) Resolution 1: The directors of the Company are required to lay before the shareholders at the annual general meeting, the accounts of the Company for the year ended 31 March 2012 and the reports of the directors and auditors.
- (XVI) Resolution 2: Lord Hutton was appointed as a director of the Company on 18 January 2012.

(XVII) Resolution 3: Sir David Higgins was appointed as a director of the Company on 15 March 2012.

- (XVIII) Resolution 4: JH Murray was appointed as a director of the Company on 22 May 2012.
- (XIX) Resolution 5: The Company's articles of association require certain directors to retire by rotation.
- (XX) Resolution 6: The Company is required to appoint auditors at each annual general meeting at which the accounts are laid, to hold office until the next annual general meeting.
- (XXI) Resolution 7: The directors can fix the auditors' remuneration for the next year.
- (XXII) Resolution 8: Under section 551 of the Act, the directors require shareholders' authority to allot shares. Shareholders last granted authority to the directors to allot shares at the annual general meeting in September 2010. The authority sought by the directors at this annual general meeting is approximately 62.34% of the issued share capital as at 9 August 2012. The grant of this authority will provide the directors with flexibility to finance the Company's projects and/or potential acquisitions, by issuing shares. The authority sought at the 2012 annual general meeting is in addition to the existing and unexercised authorities granted at the 2010 annual general meeting.
- (XXIII) Resolution 9: Under section 561 of the Act, if the directors wish to allot shares for cash, they must in the first instance, offer them to existing ordinary shareholders in proportion to their ordinary shareholdings. Shareholders last granted authority to the directors to disapply pre-emptive rights at the annual general meeting in September 2010. The authority sought by the directors at this annual general meeting is approximately 62.34% of the issued share capital as at 9 August 2012. The grant of this authority will provide the directors with flexibility to finance the Company's projects and/or potential acquisitions, by issuing shares without first offering them to existing shareholders. The authority sought at the 2012 annual general meeting is in addition to the existing and unexercised authorities granted at the 2010 annual general meeting.

# **GLOSSARY**

ADR	American Depository Receipts
отсох	The premier tier of the United States over-the-counter securities trading market
ALUNITE	A hydrated aluminium potassium sulphate mineral
BED	The smallest division of a geologic formation
BOREE SALT MEMBER	A mineral deposit in Queensland, Australia
CAES	See Compressed Air Energy Storage
CAGR	Compound Annual Growth Rate
CALCIUM HYDROXIDE	Slaked lime – $Ca(OH)_2$
CALCIUM OXIDE	Quicklime or burnt lime – CaO
CALCIUM SULPHATE	Common chemical and industrial chemical – CaSO <sub>4</sub>
CARBON SEQUESTRATION	The capture of carbon dioxide
CARNALLITE	A hydrated potassium magnesium chloride
COMPETENT PERSON	A legal definition for the purposes of the Australasian Joint Ore Reserves Committee (JORC) and NI 43-101
COMPRESSED AIR ENERGY STORAGE/CAES	A way to store energy generated at one time for use at another time
CFR	Cost and Freight. Trade term for cost of goods including the cost of their delivery to the port of delivery
DEFRA	UK government Department of Environment, Food and Rural Affairs
DSS	Detailed Scoping Study for the York Potash Project released on 30 April 2012
EPSOMITE	Household name is Epsom salt. A hydrous magnesium sulphate mineral – $MgSO_4.7H_2O$
EVAPORITE	A water-soluble mineral sediment that results from the evaporation from an aqueous solution and has been concentrated by evaporation
FAO	Food and Agriculture Organization
FOB	Free On Board. Trade term for the delivery of goods on board a vessel at the port of loading
GYPSUM	A hydrated form of calcium sulphate – $CaSO_4.2H_2O$
HALITE	Commonly known as rock salt. The mineral form of sodium chloride (NaCl).
ICMM	International Council on Mining & Metals
IFA	International Fertiliser Association
INDICATED RESOURCE	A mineral resource estimate that has been made, at a reasonable level of confidence, of the contained mineral, grade, tonnage, shape, densities and physical characteristics
INFERRED RESOURCE	That part of a mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence
INTERBED	When layers of one type of rock are interlayered with a different type of rock
IPC	Infrastructure Planning Commission
JORC	Australasian Joint Ore Reserves Committee
KAINITE	A mineral salt that consists of potassium chloride and magnesium sulphate
KIESERITE	A hydrated form of magnesium sulphate mineral – $MgSO_4$ , $H_2O$
LANGBEINITE	A potassium magnesium sulphate mineral – $K_2SO_4$ .2MgSO <sub>4</sub>
MALLOWA SALTS	A geological formation containing mineral deposits located in the Kimberley region of Western Australia
MAGNESIUM HYDROXIDE	Milk of magnesia – Mg(OH) $_{2}$

MAGNESIUM OXIDE	Magnesia – MgO
MAGNESIUM SULPHATE	MgSO <sub>4</sub>
MEASURED RESOURCE	Indicated Resources that have undergone enough further sampling for it to be regarded as an acceptable estimate, at a high degree of confidence, of the grade, tonnage, shape, densities, physical characteristics and mineral content of the mineral occurrence.
MEMBER	The formal lithostratigraphic unit next in rank below a formation. A member possesses properties distinguishing it from adjacent parts
ммо	Marine Management Organisation
мт	Million metric tonnes
МТРА	Million metric tonnes per annum
MURIATE OF POTASH/MOP	See Potassium Chloride
NI 43-101	National Instrument 43-101 an internationally accepted Canadian mineral resource classification system
NPA	National Park Authority
NPK	Fertilisers made up of a combination of nitrogen (N), phosphorus (P) and potassium (K)
РН	The concentration of hydrogen ions in a solution. A measure of acidity and alkalinity
POLYHALITE	A hydrated sulphate of potassium, calcium and magnesium – $K_2SO_4$ .MgSO <sub>4</sub> .2CaSO <sub>4</sub> .2H <sub>2</sub> O
POTASH	Any of several compounds containing potassium. Used mainly in fertilisers
POTASSIUM CHLORIDE	A metal halide salt comprising potassium and chlorine – KCl
POTASSIUM OXIDE	A compound of potassium and oxygen. Represents the amount of potassium in a fertiliser if it was in the form of potassium oxide – $\rm K_2O$
POTASSIUM MAGNESIUM SULPHATE	A potassium compound mainly used in its mineral form of langebeinite as a fertiliser
POTASSIUM NITRATE/NOP	A chemical compound of potassium, nitrogen and oxygen. Used in fertilisers
PRAIRIE EVAPORATES	See Saskatchewan Prairie Evaporite Formation
QUALIFIED PERSON	A suitably qualified person who vouches for a NI 43-101 report, but has not necessarily written it
RASTER DATA	A technique of displaying data, using pixels
SASKATCHEWAN PRAIRIE EVAPORITE FORMATION	A geological formation in the Williston Basin in Saskatchewan, Canada
SEISMIC LINES	The pattern of lines set out/or a seismic survey
SOLUTION MINING	The mining of underground, water-soluble minerals, by dissolving the minerals with water and extracting them
SOP/ SULPHATE OF POTASH	A crystalline salt compound of potassium, sulphur and oxygen, used in fertilisers – $\rm K_2SO_4$
SYLVENITE	A mineral formed of a mixture of sylvite and halite
SYLVITE	Potassium chloride in natural mineral form
т	Metric tonne
ҮРР	York Potash Project

# **ADDITIONAL INFORMATION**

The chemical composition of polyhalite and the available products supplying the four macro-nutrients of potassium, magnesium, sulphur and calcium are outlined below:

- 1. Polyhalite: K<sub>2</sub>SO<sub>4</sub>.MgSO<sub>4</sub>.2CaSO<sub>4</sub>.2H<sub>2</sub>O
- 2. Sulphate of Potash: K<sub>2</sub>SO<sub>4</sub>
- 3. Magnesium sulphate: MgSO<sub>4</sub>.7H<sub>2</sub>O
- 4. Calcium sulphate: CaSO<sub>4</sub>

This portfolio of products will enable Sirius to contribute towards the global challenges of increasing agricultural productivity to ensure food security.

#### **POTASH (POTASSIUM)**

The most common form of potash is potassium chloride, or Muriate of Potash ("MOP"), which occurs naturally as sylvite, sylvinite and carnallite. The 2011 MOP production of 56 million tonnes accounted for 90% of global potash production, with the balance of 6.4 million tonnes being produced as Sulphate of Potash ("SOP"). MOP contains around 60-62% potassium oxide (K<sub>2</sub>O). Although widely applied in all types of farming, MOP is primarily used for row crops.

SOP has historically attracted a price premium to the MOP price due to its higher production costs, limited availability and superior benefits for chloride-sensitive crop types. Some 60% of SOP is produced from the reaction of sulphuric acid and MOP in the Mannheim Furnace process and as such provides a benchmark price floor for the SOP price.

SOP contains 50-53%  $K_2O$ , can be used in every application that MOP can and is preferred in many circumstances as the chloride ion in MOP can be detrimental to some plants. Many types of fruit and vegetables, particularly tobacco, can be affected by overexposure to chloride. Furthermore, in areas with little rainfall or poor drainage, high chloride levels can be elevated in soils, resulting in symptoms of chloride toxicity in crops. Therefore, the soil's chloride content has to be managed carefully by farmers and over-application of MOP can have detrimental effects on the yield and quality of crops. This may also be taken into account in case of intensive potash-replenishment strategies in countries where potash has historically been under-applied.

#### **SULPHUR**

Sulphur is an essential crop macro-nutrient involved in several metabolic processes such as photosynthesis, starch, sugar and protein formation, as well as oil synthesis. It rivals nitrogen in protein synthesis and phosphorus in nutrient uptake by crops and is therefore more often labelled 'the fourth primary nutrient'. Historically its importance was not fully recognised, however, high intensity farming, use of improved crop varieties and increased use of sulphur-free fertilisers have created large gaps between sulphur supply and demand. Sulphur deficiency is widespread across the world and is growing, adversely affecting crop productivity. Regions with significant sulphur deficiency have been located in China, India, sub-Saharan Africa and Brazil. Research by The Sulphur Institute ("TSI") forecasts global sulphur deficiency to grow from 13.2 million tonnes in 2005 to 16.7 million tonnes by 2015.

Many studies have demonstrated the positive impact of sulphur on crops producing higher yields, better quality and improved nitrogen efficiency. Several different sulphur fertiliser products are available:

- AMMONIUM SULPHATE: mostly sold as a nitrogen source, contains 24% sulphur.
- AMMONIUM THIOSULPHATE: a liquid nitrogen fertiliser, containing 26% sulphur.
- ZINC SULPHATE containing 14% sulphur.
- **PHOSPHATE FERTILISERS:** containing between 12% and 15% sulphur.
- **POTASSIUM MAGNESIUM SULPHATE:** containing 22% to 23% sulphur.

Polyhalite is a new sulphur rich fertiliser that not only contains 19.2% sulphur<sup>1</sup>, but also contains three other key macronutrients:

- 14% K<sub>2</sub>O from sulphate of potash
- 6% MgO from magnesium sulphate
- 17% CaO from calcium sulphate
- 1. Polyhalite contains 48%  $\mathrm{SO}_{\scriptscriptstyle 3}$  which is 19% S using the USDA conversion rate of 0.4005

# **CALCIUM SULPHATE**

Calcium sulphate contains two macro-nutrients that are vital to plant health; calcium and sulphur. Calcium is essential to root and leaf development and helps strengthen overall plant structure, increasing resistance to wind, hail, insects and other sources of physical damage. Calcium deficiency is typically associated with acidic soil types with high rainfall. Regions with deficiencies of calcium suitable for plant uptake are noted in India, and the tropical areas of Latin America and South-East Asia.

While calcium is a very common mineral it is often present in a form unsuitable for plant uptake. However, calcium sulphate is able to be readily absorbed by plants. Appropriate levels of calcium sulphate would promote the following:

- Proper growth and development of the plant;
- Physical plant structure;
- Nitrogen uptake and metabolism; and
- Other critical metabolic functions.

# MAGNESIUM SULPHATE

Magnesium is also one of the six macro-nutrients essential for crop growth and food production, playing a vital role in the photosynthesis process which is required for plant growth. It works synergistically with both nitrogen and potassium to enhance crop quality and yield. Magnesium is also needed for all processes that require energy, including protein and vitamin synthesis, working together with phosphorus to transfer the internal energy required for crop growth.

Magnesium as a nutrient has long been ignored which has led to widespread magnesium deficiency in crops. Magnesium deficient regions have been located in Brazil and Central America, Sub-Saharan Africa, South-East Asia, the east coast of the United States and the west coast of Australia. Magnesium deficiency occurs most often on acidic, low magnesium-exchange soils where the topsoil has been eroded. There are three forms of magnesium that can be applied to the soil:

- THE CARBONATE FORM: Magnesite and dolomite
- THE OXIDE FORM: Magnesium oxide
- **THE SULPHATE FORM:** Kieserite (MgSO<sub>4</sub>.H<sub>2</sub>O) and epsomite (MgSO<sub>4</sub>.7H<sub>2</sub>O), which is a hydrated magnesium sulphate. Epsomite is a natural component of polyhalite.

The advantages that magnesium sulphate has over other magnesium compounds include:

- Additional provision of a small amount of another essential macro-nutrient sulphur.
- High solubility. Magnesium oxides and carbonates have a very slow solubility, which means that they release the magnesium at rates that are insufficient for the required crop uptake.

### MAGNESIUM OXIDE

The magnesium oxide or magnesia market can be split into two product categories based on grade:

- 1. REFRACTORY GRADES: Fused Magnesia ("FM") and Sintered or Dead Burned Magnesia ("DBM")
- 2. CHEMICAL GRADES: Caustic Calcined Magnesia ("CCM")

Refractory grades are the most important magnesia products both in term of value and volume and account for 60-70% of all magnesia products. They are used in furnace lining mainly in the steel and cement industry. The steel industry accounts for 70% of global refractory consumption, whereas the cement industry has a 20% share.

Global consumption of refractory grade magnesia has never been greater and is forecast to expand. This growth has been driven by the growing steel and cement industry of the last three decades, particularly in China. In the last 30 years global steel production doubled from 600 million tonnes in 1980 to 1.2 billion tonnes in 2010. The outlook for both global steel and cement production is positive with compound annual growth rates ("CAGRs") to 2015 of 4.3% and 5.3% respectively. Most growth is expected to come from China, India and Brazil.

# **MAGNESIUM HYDROXIDE**

The magnesium hydroxide market can also be split into two product categories based on their form:

- 1. SUSPENSIONS: Used mainly in water neutralisation
- 2. POWDERS:

Used in chemical and pharmaceutical applications as a flame retardant

Magnesium hydroxide suspensions can be made from CCM or are produced synthetically. The products are sold for acid neutralisation where it competes with lime and caustic soda. Due to the large amount of water present in magnesium hydroxide the freight costs are significant, leading to it being sold mostly in local markets. The exception is the United States where it is transported throughout the country in a concentrated form and then diluted.

Magnesium hydroxide powders are used in relatively small quantities in the chemical and pharmaceutical industries. Its use as a flame retardant is a small but fast growing application, driven by increasingly stringent safety standards and industry demand for an environmentally friendly, toxic-free flame retardant, particularly for cabling in cars.

The main geographic markets for magnesium hydroxide are the United States, Europe and Asia.

# **ADDITIONAL INFORMATION**

### **GYPSUM**

Gypsum is commonly mined from natural deposits or produced synthetically as a by-product in the flue gas desulphurisation process in coal-fired power stations. Although gypsum is abundantly available in certain parts of the world, a significant quantity is too low a grade to be economically processed.

Gypsum is used in a variety of applications (e.g. as a fertiliser in the agricultural industry) but it is most commonly used in the production of wallboard (also known as plasterboard) for residential or commercial construction purposes. Gypsumbased wallboard is a successful and effective building material due to its relatively low cost production costs and fire resistance properties.

Until 2020, global gypsum demand is expected to grow at a CAGR of approximately five per cent, driven primarily by growth in the wallboard and construction industries. Several industry specific drivers will impact demand in various markets:

- Over the next 15 years most growth will come from new build in the emerging markets of Asia (especially China and India), Brazil, and Africa. However, in the two biggest markets, the United States and Europe, construction of all types is forecast to be slow.
- In the mature markets there will be a shift towards the renovation wallboard segment. In the developing markets, growth will move from non-residential to residential in the next five to ten years. Globally there will be a long term shift towards renovation of gypsum-based wallboard construction.
- There will be increased demand for specialty boards, with enhanced performance properties over and above the regular wallboard. For instance, improvements in fire and moistureresistance, and exterior weather resistance.

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