# BOREALIS

# Borealis Exploration Limited

# 2015 Annual Report



## About Borealis

Borealis Exploration Limited ("Borealis") is a technology development company. Borealis invents, patents, develops and acquires new technologies that we consider major technological innovations and which, we believe, have high probabilities of generating proprietary products that Borealis can own and exploit for the benefit of both their users and our shareholders. The Borealis technologies include new materials and technologies for more efficient and lower-cost generation of electrical power, more powerful and effective electric motors, and silent, non-polluting cooling and refrigeration systems. The first of these technologies to come to market is the WheelTug® aircraft electric drive system, which will provide major economic and environmental benefits to both airlines and airports. We expect that virtually all of our technologies should fundamentally change basic industries and introduce the Borealis Industrial Revolution. We anticipate that some of our patented and proprietary industrial advances will enable entirely new industries and open new fields for scientific exploration and commercial development for many decades to come.

In addition, Borealis owns significant interests in large undeveloped deposits of iron ore at Roche Bay and Fraser Bay, and in polymetallic deposits at Freuchen Bay, all located in on Melville Peninsula, Nunavut, Canada.

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## On the Cover

The first of our technologies to come to market is the WheelTug® aircraft electric drive system, which will provide major economic and environmental benefits to both airlines and airports. Shown on the cover is the WheelTug Information Booth at the 2015 Paris Air Show.

## Chairman's Letter to Members

## To Members of Borealis and Friends of the Borealis Family:

We continue to develop WheelTug plc on a very fast track to bring WheelTug® to market. Please go to <a href="https://www.youtube.com">www.youtube.com</a> and search for WheelTug to see our latest videos. We are completing the work necessary to bring to market WheelTug, our revolutionary application of our proprietary Chorus® Motors technology, that makes possible a goal that has eluded the aerospace industry for over 110 years, enabling airplanes to drive themselves on the ground without turning on their engines or using a tow tug. We have resolved all the technical hurdles that we know of, and are finishing all the final engineering work, preparatory to building the actual certification devices.

Proving to electric motor engineers that two small motors embedded in an airplane wheel can generate the tremendous torque needed to move a 300,000-pound airplane has also encouraged requests for our technology in other, easier, applications for the Chorus Motor. As the unprecedented capabilities of Chorus Motors become evident with WheelTug, we expect that engineers will imagine further uses for this wonderful technology, and that Chorus Motors will start to produce revenues and income from additional applications of its technology.

Remember, Chorus was a technology looking for a "killer application" when The Boeing Company led us to the idea of an aircraft electric drive system and supported our first demonstration in 2005. We continue to look for additional "killer applications" and when we find them, given the maturity of WheelTug, we will carefully examine these other opportunities, if any exist that meet our very high return on investment criteria, and start additional development programs as seem appropriate.

## Progress on Low-Cost Power Production

And we are making progress with the technology we call AMPCC: Avto Metals, Power Chips, and Cool Chips, three related technologies based on a new discovery in quantum mechanics (we describe it briefly later in this report). For about three years, we have been working with nanoelectronic and nanophysics experts at a major university laboratory to learn how to optimize the performance of and efficiently build these devices, and we are making good progress.

We have built structures that we are now testing at two major university labs that may just be the base structures needed for the devices. This could be a major advance. With some luck, we could have demonstration, working Power Chips within months. At that point we could begin to show potential licensees and customers in multiple industries how they could use our technology to transform many products and services, from transistors and electronic equipment to power generation in fossil or nuclear power stations.

It should be noted that at least hundreds of billions of dollars, and maybe trillions have been spent worldwide trying to achieve what may be finally within our grasp. We have seen the necessary quantum effect thousands of times. If we can understand what is actually happening, and harness the output, energy production for the world will slowly be put on the road to very low cost energy and we hope to benefit economically as the cost curve is relentlessly driven down.

## Several High-Potential Technologies

None of our technologies has yet generated revenue or profits in the decades we have been working to create reality out of our technology aspirations. But WheelTug, Chorus, and AMPCC all have a high potential for becoming multi-billion-dollar businesses, and we are working hard to make that happen. We thank all our shareholders for your support and help, assistance and counsel through the decades. It is our shareholders' willingness to support our continued quest for game changing technologies that we can sit astride and harvest long term benefit for society and wealth for our shareholders that makes our ongoing and continued quest a reality on many fronts.

This report provides shareholders with an overview of our activities and operations, but those interested can find more information about the operations of each of our subsidiaries, including their annual reports, on each subsidiary's website.

With warmest personal regards,

Borealis Exploration Limited and the Borealis Family of Companies

Signed Rodney T. Cox, Ph.D Chairman, Chief Executive Officer and Chief Financial Officer

Signed Isaiah W. Cox, A.B. President

## Directors' Report

The directors of Borealis Exploration Limited present their report for the year ended 31 March 2015 together with the financial statements of the company and the auditors' report to the members.

#### 1. RESULTS

The results for the year ended 31 March 2015 are shown on page 28. The profit for the period has been carried forward. No dividends have been proposed for the period.

## 2. PRINCIPAL ACTIVITIES AND BUSINESS REVIEW

The Company was incorporated on 26 August 1968 by Canadian Dominion Charter. On 19 October 1998, the Company changed its domicile to Gibraltar. The Company holds a number of undeveloped mining resources and is involved in the development of various substantive innovative technologies.

#### 3. DIRECTORS

The Directors who served during the year were as follows:

Rodney T. Cox, PhD
Wayne S. Marshall, PhD
Isaiah W. Cox A.B.
David M. Goldenberg LLB\*
Nechama J. Cox PhD
Ing. Jan Váňa

Appointed 27 December 1978
Appointed 11 September 1985
Appointed 15 February 1994
Appointed 11 September 1996
Appointed 1 August 2001
Appointed 1 January 2013

\* Resigned effective 31 March 2015

THE PRESENT POSITION AND OFFICE WITH THE COMPANY IF APPLICABLE, AND THE PRESENT PRINCIPAL OCCUPATION OR EMPLOYMENT OF THE INCUMBENT DIRECTORS AND OFFICERS ARE AS FOLLOWS. UNLESS OTHERWISE STATED, SUCH OCCUPATION OR EMPLOYMENT HAS CONTINUED FOR MORE THAN THE LAST FIVE YEARS.

NECHAMA J. COX became a Director of the Company on 1 August 2001. Dr. Cox is the Chief Operating Officer of Chorus Motors plc. She is currently also a Director of Chorus Motors plc since 1 August 2001; Cool Chips plc, 1 August 2001; Faraway plc, 5 October 2004; Photon Power plc, 1 August 2001; Power Chips plc, 1 August 2001. Dr. Cox is also a member of the Council of several Gibraltar Charitable Foundations, including The Jeremiah Toyam Cox Foundation Limited (TJTCFL), the Cox Hart Foundation Limited, the Nechama Cohen Cox Foundation, and the BH Foundation. There are more than 10 members of the Council of each of these foundations. Dr. Cox is also a member of the Board of Directors of Shiloh Limited International, Inc., a corporation, which is wholly owned by TJTCFL, which also owns other business entities including The Parmenides Group, a partnership wholly owned by TJTCFL. Dr. Cox has no ownership interest in these various entities and has received to date no remuneration or reimbursements for any services performed on behalf of these various charitable entities. None of these individual charitable foundations, companies or partnerships directly own over 10% of any of the Borealis Family of Companies shares although they do hold shares as nominees and custodians for other unaffiliated entities that have control in aggregate of in excess of 10% of the outstanding shares in all of the Borealis Family of Companies. Nechama J. Cox beneficially owns directly or indirectly 16,667 shares of Borealis.

**DAVID M. GOLDENBERG** became a Director of the Company on 18 September 1996 and resigned on 31 March 2015, having previously been a director from 15 April 1988 until 1994. Mr. Goldenberg is currently retired as a Barrister and Solicitor. Previously he was with the firm Goldenberg Crisfield Zimmerman Barristers & Solicitors, which grew out of David M. Goldenberg, Professional Corporation. He was previously a Partner in the law firm of Beaumont Church until 1998. He is also a member of council of the David M. Goldenberg Foundation. David M. Goldenberg beneficially owns directly or indirectly 100 shares of Borealis.

WAYNE S. MARSHALL became a Director of the Company on 11 September 1985. He is Professor Emeritus of Business Administration at Long Island University. Dr. Marshall is Chairman of the Executive and Compensation Committees, and a member of the Audit Committee of the Company and for all of the following Companies: Borealis Exploration Limited since 11 September 1985; Avto Metals plc, 06 October 2004; Chorus Motors plc, 21 December 1999; Cool Chips plc, 21 December 1999; Faraway plc, 28 April 2003; Photon Power plc, 23 March 2000; Power Chips plc, 23 March 2000; WheelTug plc, 09 February 2005 and 12 additional affiliated companies, wholly or partially owned, direct or indirect, since prior to 2005, except for Roche Bay plc where he holds no position. In addition, he is a member of the council of The Jeremiah Toyam Cox Foundation Limited (JTCFL) and the VSBM Foundation Limited and is on the board of Shiloh Limited International Inc., a company wholly owned by JTCFL. Wayne S. Marshall beneficially owns directly or indirectly 49,686 shares of Borealis.

RODNEY T. COX became a Director on 27 December 1978. Dr. Cox is Chairman of the Board. Chief Executive Officer and Chief Financial Officer of the Company. In all of the following Companies, he is also a Director, Chairman of the Board, Chief Executive Officer and Chief Financial Officer and a member of the Executive, Audit and Compensation Committees: Avto Metals plc since 6 October 2004; Chorus Motors plc, 21 December 1999; Cool Chips plc, 21 December 1999; Faraway plc, 28 April 2003; Photon Power plc, 23 March 2000; Power Chips plc, 23 March 2000 and also 12 additional affiliated companies, wholly or partially owned, direct or indirect, since prior to 2005, except for WheelTug plc where he is Chairman of the Board and Chief Financial Officer since 09 February 2005 and Roche Bay plc where he holds no position. Dr. Cox is also a member of the Council of several Gibraltar Charitable Foundations, including The Jeremiah Toyam Cox Foundation Limited (TJTCFL) and the Cox Hart Foundation Limited. There are more than 10 members of the Council of each of these foundations. Dr. Cox is also a member of the Board of Directors of Shiloh Limited International, Inc., a corporation, which is wholly owned by TJTCFL, which also owns other business entities including The Parmenides Group, a partnership wholly owned by TJTCFL. Dr. Cox has no ownership interest in these various entities and has received to date no remuneration or reimbursements for any services performed on behalf of these various charitable entities. None of these individual charitable foundations, companies or partnerships directly own over 10% of any of the Borealis Family of Companies shares although they do hold shares as nominees and custodians for other unaffiliated entities that have control in aggregate of in excess of 10% of the outstanding shares in all of the Borealis Family of Companies. Rodney T. Cox beneficially owns directly or indirectly 2,544 shares of Borealis.

**ISAIAH W. COX** became a Director of the Company on 15 February 1994. Mr. Cox is President, Chief Operating Officer, a member of the Executive Committee and Compensation Committee of the Company. In all the following Companies, he is a Director, a member of the Executive Committee and the Compensation Committee of the Company, President and Chief Operating Officer, except Chorus Motors plc where he is President, and WheelTug plc where he is President and Chief Executive Officer: Avto Metals plc since 6 October 2004; Chorus Motors plc, 21 December 1999; Cool Chips plc, 21 December 1999; Faraway plc, 28 April 2003; Photon Power plc, 23 March 2000; Power Chips plc, 23 March 2000; WheelTug plc, 09 February 2005 and also 12 additional affiliated companies, wholly or partially owned, direct or indirect, since prior to 2005, except for Roche Bay plc where he holds no position. Mr. Cox is also a member of the Council of several Gibraltar Charitable Foundations, including The Jeremiah Toyam Cox Foundation Limited (TJTCFL), the Cox Hart Foundation Limited, the Nechama Cohen Cox Foundation, and the BH Foundation. There are more than 10 members of the Council of each of these foundations. Mr. Cox is also a member of the Board of Directors of Shiloh Limited International, Inc., a corporation, which is wholly owned by TJTCFL, which also owns other business entities including The Parmenides Group, a partnership wholly owned by TJTCFL. Mr. Cox has no ownership interest in these various entities and has received to date no remuneration or reimbursements for any services performed on behalf of these various charitable entities. None of these individual charitable foundations, companies or partnerships directly own over 10% of any of the Borealis Family of Companies shares although they do hold shares as nominees and custodians for other unaffiliated entities that have control in aggregate of in excess of 10% of the outstanding shares in all of the Borealis Family of Companies. Isaiah W. Cox beneficially owns directly or indirectly 157,732 shares of Borealis.

JAN VÁŇA became a Director of the Company on 26 June 2013. He also become a Director of Avto Metals plc, Chorus Motors plc, Cool Chips plc and Power Chips plc on 26 June 2013; and is a Director and Consultant of WheelTug plc since 14 July 2011. Mr. Váňa has been involved in many aspects of aviation; former Czech Air Force Pilot, vice-minister of Defence, member of the Board of Directors of Czech Airlines and commercial director of ABS Jets (largest business jet operator and MRO in the CEE), and outstanding experience from aviation projects management at CEE/European civilian/military market, Mr. Váňa managed the infrastructure of suppliers, facilities and equipment in Prague for the November 2010 and June 2013 tests.. Mr. Váňa beneficially owns directly or indirectly 1 share of Borealis.

In respect of its directors, the Company hereby confirms the following:

- There are no potential conflicts of interests between any duties to the Company and the private interests and or other duties of any director.
- There have been no bankruptcies, receiverships or liquidations with which any current director was associated for the previous five years.
- There has been no official public incrimination and/or sanctions of any director by statutory or regulatory authorities (including designated professional bodies) and no director has ever been disqualified by a court from acting as a member of the administrative, management or supervisory body of the Company (or any other company) or from acting in the management or conduct of the affairs of the Company (or any other company) for the previous five years.

As at the date of this annual report, Borealis has no employment or consulting agreements with any persons. The Borealis family of companies, however, has the following employment and consulting agreements:

## **Employment**

Name of Company	Name of Employee	Role	Term
Technical	Louise Janicki	Administrative	At will
		assistant	
Technical	Teri Watts	Administrative	At will
		assistant	

#### Consulting

Name of Company	Name of Consultant	Role	Term
Technical	Jonathan S. Edelson	Chief Scientist	30 years
Technical	Joan K. Lawrence	Patent drafting	Expired, but term extended indefinitely by oral agreement
Technical	Claire Rustier	Progammer	indefinite
WheelTug plc	Mordechai Glicksman	Administrator	At will
WheelTug plc	Gilbert Thompson	FAA consultant	At will
	David Yancich	Programmer	indefinite

Borealis confirms that there are no programs applicable to employees, consultants and members of the governing board of directors of the company that offer such persons the right to acquire securities, options or any other rights under preferential conditions.

## 4. BUSINESS REVIEW

Borealis was a Canadian mineral exploration company until 1992, when we established a subsidiary, Borealis Technical Limited ("Technical"), to develop and improve existing technologies in Gibraltar. At that time, we felt that, no matter how valuable our Canadian mining assets were and would be over time, the potential of the technologies to be developed by Technical, which are described in more detail below, would be likely to produce sustained long-term profits sooner than the exploration and development of our mineral holdings. The development times for both classes of assets have proven to be decades. From where we sit now the dedication and hard work by our extensive staff worldwide looks to have paid off, at least with regards to the technology companies, to allow us to look forward to be cash flow positive and operationally profitable. Our various projects should be coming on line over the next decades. We expect to have basic, serious impacts in many major industries, where if we are smart and careful, we will become serious and hopefully dominant players worldwide.

Technical is now the parent holding company for all of the Borealis scientific research and technology development programs. Technical develops and owns technologies that are designed to fundamentally change basic industries. Borealis has invested heavily for over two decades now in basic scientific research in many fields, developing new solutions that are patented and proprietary to Borealis and are intended to provide significant technological, economic and environmental advantages over existing competitive products and technologies.

All our technology investment decisions are driven by the concept of Present Discounted Expected Value ("PDEV"). This is standard Columbia Business School thinking, circa 1960s, where several of our current and past directors and advisors either taught, were deans or graduated. We are the only family of companies out of that milieu that have used PDEV to build companies that should dominate entire industries based on better patented technology, instead of using PDEV to engineer basically strictly short term financial gains, even if those gains proved huge.

Borealis continually investigates business opportunities in fields that our management estimates have the potential to produce substantial profits. We are especially interested in "mature" markets that have had generally no fundamental scientific advances in decades where there is room for significant game-changing profits to innovators.

A good example is how, more than 30 years ago, our Chief Scientist, Jonathan S. Edelson, showed he could build a better electric motor than then-existing technology and made a simple demonstration of the power of a multiphase motor. We then started Chorus Motors plc, which has developed that multiphase motor technology to where it is now a key enabling technology for the WheelTug system.

## WheelTug

WheelTug is the most advanced among Borealis' technology development programs. Work began in 2004, when The Boeing Company proposed a joint test project to determine whether something the aerospace industry had never before been able to achieve was possible: whether an electric motor, designed to fit within the small nosegear wheels of an aircraft, could produce sufficient torque to drive an airplane, and thus enable forward and backward mobility at airports, without using either jet engines or a tow tug. The tests, conducted on a Boeing 767 in the summer of 2005 in Marana, Arizona with Chorus Motors plc, were successful, and we then launched a multiyear effort to develop, certify, and market the WheelTug aircraft electric drive system.

WheelTug is the first technology that enables most commercial and military aircraft to taxi around airports without using their main engines and without the assistance of tow tugs. This technology is owned by WheelTug plc, a majority-owned subsidiary of Chorus Motors plc, a majority-owned subsidiary of Technical, which, in turn, is a majority-owned subsidiary of Borealis.

The WheelTug system operates using highly-efficient, environmentally friendly, ultra-high-torque Chorus electrical motors. As a result, airlines (and other aircraft operators) will enjoy reduced fuel consumption, reduced engine damage, reduced maintenance costs and improved ground operations with improved schedule efficiencies. A WheelTug installation is comprised of two electric motors installed in the nosegear wheels of an aircraft, a motor drive electronics package and cockpit controls. WheelTug is powered by the aircraft's auxiliary power unit ("APU"). WheelTug can be fitted onto existing and new commercial airplanes, private executive jets, and helicopters, as well as onto military aircraft. WheelTug can also be easily installed and uninstalled on aircraft, which provides flexibility to airlines and aircraft leasing companies.

Commercial airlines currently rely on tow tugs for pushback from terminal gates and on jet engines for ground taxiing. WheelTug eliminates the need for a tug and delays the use of the engines until the pilot has the plane well on the way to the runway and ready for takeoff. Turnaround time will be reduced by replacing the tow tugs with WheelTug, using the aircraft's onboard electricity from the auxiliary power unit to drive the aircraft on the ramp, tarmac and taxiways to and from the gate. After landing, main engines can be turned off and WheelTug can then drive the aircraft from the runway directly to the gate. Actual tests show that WheelTug works in rain, on snow, and in hot, desert-like conditions. WheelTug Twist<sup>TM</sup>, or using the system to turn an aircraft 90° at the gate and thus enabling parallel parking, makes for even greater airport efficiencies than originally envisioned.

For a typical Boeing 737NG aircraft or Airbus A320 aircraft, WheelTug is expected to initially deliver agreed-upon operating cost reductions and other economic benefits in excess of \$1 million per airplane per year, and possibly significantly more than that, subject to its degree of utilization by the particular airline and agreements on savings items. Along with such financial benefits, there are expected to be sharp reductions in greenhouse gas emissions, engine noise and safety risks in terminal areas. WheelTug, with the WheelTug Twist, is expected to provide the most extensive efficiency improvements ever in ground handling of aircraft. WheelTug plc's business model is based on leasing the WheelTug system to airlines and to aircraft leasing companies. WheelTug expects to initially lease each system to airlines for approximately 50% of the agreed monthly savings of the airlines using WheelTug.

WheelTug now has letters of intent to lease the systems from 22 airlines, representing more than 976 aircraft, including several national "flag carrier" airlines such as Alitalia, KLM Royal Dutch Airlines, and El Al Israel Airlines. Over the coming year, we expect to achieve FAA approval of the preliminary certification plan, and commence formal pursuit of FAA regulatory approval (Supplemental Type Certificate, or "STC") to bring WheelTug for the 737NG family of aircraft into the market. WheelTug expects to be profitable within 6-9 months after FAA certification. Profitability is expected to occur after actual deliveries begin and we are generating monthly lease revenue.

Over the past year, WheelTug has added exceptional engineering expertise to its core team, finalized the set of contributing partners, and "locked in" the 737NG as the launch aircraft thanks in part to the provision of a certification aircraft by airline Air Transat. Additionally, the savings model and business model have been significantly upgraded, with a firm understanding of the time savings of between 6 and 20 minutes per flight, and how that translates into an improved passenger experience and capacity upgrade for any WheelTug-equipped aircraft.

We estimate that, together with its risk-sharing partners, WheelTug plc will have invested approximately \$100,000,000 in developing WheelTug by the time the first WheelTug system is installed on a commercial aircraft.

We believe that achieving a net income of several billion dollars per year within three years after WheelTug obtains regulatory certification and enters service is an attainable goal. Aviation industry analysts project there will be over 20,000 commercial aircraft that need or will benefit from WheelTug flying by the year 2020. Boeing has recently forecast that some 37,000 new aircraft will be needed over the next 20 years.

## Chorus Motors

The Chorus® Motors technology makes possible extremely high-torque, high-efficiency AC induction motors especially suitable for traction applications, such as WheelTug®, but also including cars, trucks, trains, and ships and almost any equipment that requires a motive force. Borealis formally introduced the Chorus Motor to market in September 1999. Because of the tremendous market need and demand for WheelTug by airlines, we have decided to focus a disproportionate amount of our internal resources on WheelTug until it is commercialized, which is expected to be no later than 2017. We will then focus more sharply on some of the many other applications for the Chorus motor technology.

It should be noted that Chorus Motors plc is the majority owner and controlling shareholder of WheelTug plc. Please see the WheelTug plc web site to understand the value of WheelTug plc to Chorus Motors plc. The WheelTug plc shares owned by Chorus Motors plc., which have funded the WheelTug plc work, have allowed Chorus plc to be a profitable company, with an exceptionally strong balance sheet over the years.

Within the next year or so, when the Chorus team finishes the development of WheelTug we expect to select the next couple of markets that we will plan to dominate with our superior traction motor technology.

The Chorus technology is very different from the numerous other motor technologies, the most prevalent being the permanent magnet motors and the universally-used three-phase motor technology that have dominated the motor world for decades. As a result, only certain, elite electrical engineers seem to understand our Chorus Technology. The Chorus Motor's patented employment of electrical drive harmonics unlocks a power-to-weight ratio of almost 10:1 over conventional AC induction motors. This incredible power density, and the use of patented control logic, allows the motor to function efficiently in both low-speed/high-torque and high-speed/low-torque configurations. In other words Chorus handles very fast starts and "power jumps" as well as smooth, continuous high-speed operation with equal elegance.

Chorus has multiple other applications that will emerge when more motor application engineers eventually understand its benefits. For example, farm implements: typically needing high traction at low speeds, agricultural vehicles are excellent candidates for a Chorus drivetrain solution. Able to deliver exactly as much or as little traction and acceleration as needed, a Chorus drivetrain can eliminate the inefficient, low-RPM operation of traditional agricultural engines. Instead locomotion is provided by a Chorus motor, with electricity supplied from a battery and/or provided by an efficient onboard generator. Combines, tractors, mowers and other agricultural machines gain the benefit of near-continuous speed operation without requiring complex CVTs or large, inefficient engines. We will need to design a business structure to take profitable advantage of these applications. We have not yet found any applications as good, nor as potentially profitable as the aerospace applications.

For example, Chorus is an ideal motor for driving electric or hybrid automobiles and trucks. Chorus can improve dual hybrid vehicles in several ways. We can provide an electric motor that can propel the car efficiently across the entire operating profile, from high-torque startup to high-economy cruise. Chorus can also simplify the system by removing the need for specialized cooling solutions. In pure electric cars, Chorus cannot solve the battery problems with these vehicles, but Chorus Meshcon offers significant power density and efficiency improvements over the three-phase motors currently in use. Permanent magnet machines are not viable for pure electric cars because of their cooling problems. In addition, Chorus Meshcon offers high efficiencies at low torques -- increasing the range and/or reducing the battery-size requirements of existing solutions. To-date, we have not entered the car business because the profit margins are not what we have grown to expect. However, such low margins have not deterred many car companies from entering the electric car business. As such, at some point we can expect to reach a reasonable licensing agreement for the Chorus technology with an existing player.

The Chorus technology also is applicable for generators, such as those used by wind turbines, and for use in challenging applications, such as mining or remote petroleum production operations. In such challenging environments, harsh conditions and high-value applications users need to know that their electric motor will do the job without complaints and without stopping. Chorus Motors provide the highest AC induction torque density in the smallest footprint, and does it without the temperature sensitivity or exotic materials of permanent magnet-based machines.

We continue to look for high value, low cost applications for our high-capability technology. Please contact us if you have such an application. We thank everybody for their help and assistance through the decades of development work.

## Avto Metals, Power Chips, and Cool Chips

Borealis is also currently developing several other new concepts invented or discovered by our scientists. Among these are new technologies using quantum interference effects in devices for the efficient and clean generation of electric power and for environmentally benign cooling and refrigeration. These devices, called Power Chips<sup>TM</sup>, Cool Chips<sup>TM</sup> and Avto Metals<sup>TM</sup>, are small, lightweight, durable, versatile, silent and non-polluting without moving parts. Power Chips are expected to make possible the generation of electricity anywhere there is a source of heat, while Cool Chips are an entirely new system for cooling, refrigeration and climate control. Because of their innovative design, these technologies are projected to be more efficient than any competing technology. Avto Metals<sup>TM</sup>, which allows for the custom design of electron volt work functions, we believe makes these projects both realistic and price competitive and includes many other areas of work, such as the Avto Quantum Transistor<sup>TM</sup> and multiple applications in medicine, pesticides and catalysts. We are currently deeply involved in this work and our lab results are at present very promising. There is no guarantee of success, and we have been working this field for over 20 years with no economically successful products thus far. It should be noted that this work is in markets that in dollar terms are many orders of magnitude larger than our corner of the aerospace markets. We just have to figure out how to structure transactions that give us the large profits we are seeking with sufficient market penetration to make the effort at least the size of our aerospace work.

## **Avto Metals**

Avto Metals plc aims to develop, commercialize, and licence the Avto Metals technology, a revolutionary new technology for changing the fundamental physical properties of materials. The science of Avto Metals is still very young, and most of its potential applications are not yet known, while some will not be discovered for decades. Products fabricated using the Avto Metals technology are likely to drive the next phase of evolution in electronic devices of all kinds, as well as make possible far-reaching transformations in the products of many other industries.

Avto Metals are new materials that can be custom-designed to achieve desired electrical or physical properties. They use a new method of changing the distribution of electrons within a material, thus changing the electrical properties of that material. All materials thus can now be made electrically conducting.

Avto Metals are a result of our discovery of a new quantum interference effect, which we have called the Avto Effect. The Avto Effect will enable the transformation of existing materials into new materials with precisely-defined properties for almost any electronic application. These new materials will give scientists, engineers, and product designers an entirely new range of options in creating new technologies and products. In effect, they form entirely new materials with variable electrical properties.

While the full range of applications will not be known for decades, as scientists and engineers find new ways to use them, initial applications will be simpler and cheaper diodes and transistors, which are the basic building blocks for all microelectronic devices—such as computers, cellphones, and multifunction digital tools—and for flat-panel displays. Future applications will include new technologies for efficient electrical power generation (such as Power Chips), and cooling and refrigeration (such as Cool Chips).

Because the Avto Effect is a new scientific discovery, and Avto Metals an entirely new form of materials, few academics or scientists yet understand what they are or how they work. Broadly, Avto Metals are materials designed so that their electron emission can be regulated and their electrical properties thereby changed as desired. The scientific principle is similar to that used in theatres and concert halls to reduce echo effects.

Echo effects are caused by the reflection of sound waves from the theatre's walls. In modern theatres and concert halls, patterns are built into the walls to reduce echoes. By modifying the shape of the walls, the reflection of the sound waves can be changed and echoes can be reduced or eliminated.

The Avto Effect is the same principle, in this case altering the reflection of electrons from the surface of a material using the wave properties of the electrons. Until now, scientists have not exploited the wave properties of electrons because those properties become useful only when the dimensions of a structure are reduced to nanoscales.

It is well known in quantum mechanics that electrons have wave properties. But this knowledge has had no practical application in microelectronics because until now the dimensions of microelectronic components were too large to exploit electron wave properties. With today's achievements in nanoelectronics, it becomes possible to fabricate objects having dimensions small enough to exploit the wave properties of electrons.

Using the wave properties of electrons to alter the characteristics of a material makes it possible to fabricate new classes of devices. For example, smaller, cooler-operating, more-effective and less expensive diodes, transistors, and flat-panel displays can be built. In addition, more-powerful semiconductor lasers and more-sensitive infrared detectors will be possible. And there are many more potential applications.

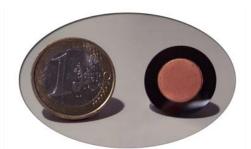
In all these devices, the work function of the material—the energy required to remove an electron from a solid material—defines its quality and complexity of production. The Avto Effect allows us to regulate precisely the work function of a material without changing its chemical composition. For example, the work function of a material such as silicon can be easily varied. The Avto Effect operates by modifying the geometry of the surface of the material in such a way that the wave properties of electrons become considerable. The end result of the ability to regulate electron wave properties is that the work function of a material can be changed and thus—for the first time—the electrical characteristics of the material can be changed at will.

All of this is very challenging and we finally think there is a possibility of serious outside funding which will allow us to develop this field and possibly earn outstanding profits from the undertaking. Remember that the US Government along with others have invested at least hundreds of billions of dollars is these broad fields of power production and thermal management. Most of this money has been simply wasted, a good example of which is thermoelectrics. What has been left are laboratories and people that are well equipped to do this work in the scale that we need and at prices we can afford. When we started the engineering costs in this field were in the 9 to 10 figures to play, and it is now 6-7 figures to play and 7 to 8 figures to make a real business. What a sea change for us as we begin another drive for product.

## **Power Chips and Cool Chips**

Borealis has also developed two technologies based on our research into thermionics—the emission of excited electrons from an electrode. Both technologies have been made possible only in recent years by advances in semiconductor manufacturing capability and by new understanding of both quantum physics and nanotechnology. Both will be among the first practical benefits from the emerging nanotechnology revolution.

The first is Power Chips, which produce electricity directly from heat, with high efficiency. Power Chips are small, lightweight, durable, versatile, silent, nonpolluting, and can operate without any moving parts. They will make it possible to generate electricity anywhere there is a source of heat.



Prototype Chip shown with a 1-Euro coin for size comparison

Major potential applications include power generation in electric or hybrid-electric vehicles, reclaiming and converting waste heat in conventional power plants, and stand-alone power generation systems for individual buildings, thus avoiding all the problems of infrastructure cost and potential brownouts associated with area grid-based power systems. For these and many other applications we expect Power Chips to be superior not only to all established technologies, but also to emerging technologies such as fuel cells. The worldwide market for electric power exceeds \$1 trillion a year, and we expect that Power Chips will over the next few decades replace many existing means for generating electricity and capture much of this market, while also creating new markets by making electricity almost universally available at a lower cost.

Alternatively, the chips can be operated as Cool Chips to pump heat to provide cooling, refrigeration, and climate control. Because of the inherent advantages in cooling across a nanometer-scale gap between two electrodes, Cool Chips are projected to attain efficiencies higher than those previously available in cooling systems, and far greater cooling performance than compressors of the same size and weight. The devices are small, silent, lightweight diodes that are scalable in arrays to meet any thermal management need from cooling a single microprocessor to air-conditioning a factory or home. They can produce cooling for any heat load from hundreds of degrees to below freezing temperatures, at projected efficiencies of 55% (conventional compressor systems operate at 40-50% efficiencies).

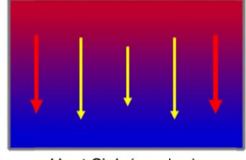
Cool Chips will have thousands of applications, from refrigerating cargo ships and air-conditioning cars to cooling X-ray machines, desktop and laptop computers, containers for land and sea and telecommunications equipment. We expect that our first sales will be for military use, for cooling a wide range of equipment, devices, and sensors.

Cool Chips offer a unique cooling solution and the first viable replacement option for the century-old compressor technology that is now dominant in nearly all forms of thermal management, including air conditioning, refrigeration, chilling, freezing, and cooling. Their potential market is huge. Cool Chips offer a number of benefits over traditional systems that will give them a significant competitive advantage in capturing this large and mature market. In addition to their size, weight, and efficiency advantages, Cool Chips have no moving parts, operate silently, require little or no maintenance, and use no environmentally harmful refrigerants.

How can the same effect of quantum physics produce both electric power and cooling? The heart of a Power Chip or Cool Chip is an electrode capable of emitting electrons very freely. This can be triggered either by applying heat, or by applying an electric current.

If heat is applied, the resulting electron flow forms an electric current.

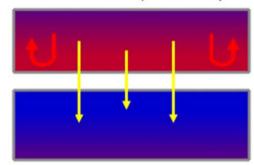
## Heat Source (cathode +)



Heat Sink (anode -)

Conventional thermoelectrics allow conducted heat to spread throughout the device, greatly reducing the potential of electron migration.

## Heat Source (cathode +)



Heat Sink (anode -)

By introducing a gap the return path for conducted heat (red arrows) is eliminated, making Power Chips extremely efficient.

If electricity is applied, the electrons carry heat with them as they move. By ensuring that the electrons are passing across a tiny vacuum gap, the direction of heat flow is predominantly one-way, and thus one side of the chip becomes cooler while the other side becomes warmer.

In both forms, the chips can operate within all normal ambient temperatures, and, we expect, from cryogenic temperatures up to the temperature of typical engine exhaust gases (900° Celsius). Thus they have a wide range of potential applications both in day-to-day life and in many industrial processes.

We expect that initial production Power Chips will generate 10 to 100 Watts per square centimeter, depending upon the operating regime, while Cool Chips will produce 3 to 5 Watts (equivalent to 10 to 17 BTUs) per square centimeter of cooling. Both these outputs are far higher, and are projected to be produced at higher efficiencies, than those possible with any existing technology for power generation or cooling. Further development should substantially increase the chips' respective power generation or cooling capacities.

The demand for these devices is intense, from dozens of industries and for thousands of applications. As a result, we anticipate that Cool Chips plc and Power Chips plc, our majority-owned subsidiaries developing and licensing these technologies, will experience perhaps the fastest demand-growth curves in industrial history. The largest constraint to growth will be manufacturing capacity. We plan to complete the first 18 months of production solely out of our own facilities; additional capacity will then be provided by additional facilities or by manufacturing partner licensees. Much more information is available on both these technologies and companies on their respective Websites at www.coolchips.gi and www.powerchips.gi.

## Mineral Properties: Roche Bay and Faraway

These are not happy times in the mining business. The directors of Roche Bay and Faraway conducted an impairment assessment and the conclusion was to write the properties down to nominal values. We have held these properties for decades. This has become the story of the difference between the rich and the poor. As the late financier Richard K. Mellon was wont to say: the difference is simple - the poor have to sell out.

Our mining properties are basically written down to zero value. We still hold our land positions and plan to hold our positions until we can bring them into production.

Specifically, certain of our Roche Bay iron ore mining properties have been developed to the point where we have transferred direct management and operations thereof to a third party. In 2007 we agreed with Advanced Explorations Inc. (AXI) on a plan to explore and develop the eastern Roche Bay iron ore deposits, on which AXI has until now invested more than \$50 million. However, AXI has been unable in the last two years to raise sufficient capital to continue its development operations and has now been suspended from trading by the Toronto Stock Exchange. AXI is hopefully working through its issues. In any event, Roche Bay still retains a 25% direct ownership interest, plus significant Royalty Interests, in the properties and we hope to come out of this debacle in a satisfactory position.

It is expected that the next step in respect of the property being developed by AXI, after its structural and financial problems are resolved will be the continuation of mineral exploration work in adjacent zones of mineral deposits. It is unlikely however, that any decision to build a mine in this region will be made in the next few years.

We believe that our Faraway property sits on an intracratonic rift of which there are nine such known intracratonic rifts in the world, eight of which (i.e. all intracratonic rifts other than the one owned by Faraway at Freuchen Bay, Canada) are producing polymetallics (e.g., gold, platinum, copper, nickel, tungsten, iron, zinc, and other minerals), in some cases, for over 100 years. We intend to raise at least C\$10,000,000 to conduct a feasibility study on the property. At some point we will probably end up funding this program out of general corporate funds. If the results are satisfactory, we intend to use additional internally generated funds or raise outside funds to develop this property. If the work does not show the potential mineral deposits we expect, we will abandon this project.

It should be noted that several very interesting mining properties world wide are now available for fire sale prices. We will continue to look at these opportunities and funding permitting, take advantage of the situations. We are buyers in this mining market. We are only looking for properties worth well in excess of US\$1 billion in present-discounted expected value.

## The Borealis Industrial Revolution

Many of the core technologies that provide the foundations for modern industrial economies were invented in the last half of the 19th Century. These include steelmaking, electric motors, electrical power generation, internal-combustion automobile engines, and refrigeration and air conditioning. While all these first-generation technologies have been significantly improved over the past century, none has been fundamentally changed or replaced by a better technology. Yet in the past century there have been enormous advances in basic sciences, in engineering, and in manufacturing capabilities. These scientific and technological advances have been applied to invent new products and create new industries, but none of those advances has significantly changed the core industrial technologies.

Borealis has re-examined the core technologies of basic industries—all of which have worldwide sales of trillions of dollars annually—and applied the 20th and 21st Century's scientific and technical discoveries—notably recent advances in microengineering and nanotechnology—to re-invent these 19th Century technologies. The result is a number of entirely new technologies for basic industries that will advance them into the 21st Century and launch a decades-long wave of renewal, regeneration, and economic growth worldwide—what we call the Borealis Industrial Revolution.

These renewed fundamental technologies, in our patented proprietary packages, will be smaller, simpler, more efficient, and much less expensive. They will permit the benefits of modern technology to be spread much more widely around the world and spark economic growth everywhere. They will also respond to 21st Century concern about the Earth's environment by sharply reducing the need to burn fossil fuels and by greatly reducing or even eliminating air pollution caused by many industrial processes and consumer products.

These new Borealis technologies will provide profound benefits for the entire world, and they will produce farreaching changes in many industries and in regional and national economies with the products that will be developed. Everybody should benefit, notably including our shareholders.

The widest-ranging of these, Avto Metals, represents a fundamental change in all solid-state physics. The Avto Metals technology will enable scientists and engineers to change at will the electrical and some physical properties of all metals and some other materials, such as silicon. It enables any metal, for example, to be made electrically conducting to the extent desired.

The full impact of Avto Metals will not be known for decades, as scientists and engineers learn how to use it and apply the Avto Effect to invent new materials, technologies, and products. Among the first applications will be improved diodes and transistors, the basic building blocks of electronics. Better flat-panel displays, lasers, and sensors will be other early applications. Avto Metals will also be the core technology underlying two other Borealis inventions, Power Chips and Cool Chips.

Power Chips should revolutionize electrical power generation across virtually all applications. In present large generating stations, adding Power Chips to capture heat that is now wasted will enable power plants to produce at least 20% more power with no increase in fuel consumption or emissions. In automobiles and other vehicles, Power Chips initially are likely to replace the starter-alternator, using waste heat from the radiator and exhaust and greatly increasing the efficiency of the internal combustion engine. Eventually, vehicles driven by electricity produced onboard will become feasible, with power generated by Power Chips—burning gasoline, natural gas, methane or hydrogen as fuel to produce heat—and driving a super-efficient Chorus Motor. Such an automobile would achieve far higher fuel efficiency than current models and produce a fraction of the emissions.

Power Chips will make it possible to efficiently generate power in a wide range of portable devices, thus increasing their utility. They will make it possible to bring plentiful electric power to regions of the world whose peoples and economies now suffer from inadequate electric power, at a fraction of the cost to do so using current generating technologies. Powering personal electronic devices using body heat, thus removing the need for batteries and all the attendant paraphernalia will be a particular boon for cell phone users of the world.

Cool Chips will also produce wide-ranging benefits for many industries and people worldwide. They will sharply reduce the costs of cooling, refrigeration, and air conditioning, thus making these amenities available to more of the world's people. Just as the southern United States began an ongoing multi decades-long surge of economic growth when air conditioning became widely available, so Cool Chips will enable economic development in all the world's tropical regions, at a much lower cost than current compressor-based air conditioning. Because Cool Chips use no compressors or gases, they produce no emissions, and thus will reduce any threat posed by global warming.

They will also make possible a vast array of new products in many industries, from non-melting picnic coolers to quieter, less expensive air conditioning to Cool Chips built into clothing to provide personal climate control. Because Cool Chips will make possible precise temperature control in small areas, they will enable refrigerators to keep each food at its optimal storage temperature, thus keeping foods fresh longer. In a car, they will allow each passenger to be as warm or as cool as he chooses.

And the Chorus Motor will enable many products, from large industrial machines to tiny servomotors, to be smaller, lighter, more efficient, more powerful, and less expensive. It will open the path to a multitude of new products, and enable manufacturers in many industries to redesign existing products to reduce their size and weight and improve their performance, efficiency, and appearance. The first such applications are Chorus Motors and WheelTug, which will increase the efficiency and substantially reduce the operating costs of commercial airplanes.

Combined with Power Chips to produce electricity, the Chorus Motor will make possible more efficient and non-polluting automobiles and other vehicles, from trucks to trains to ships. A Chorus Motor used to drive an automobile, for example, will be smaller, lighter weight, virtually silent, and less expensive to build and operate than an internal-combustion engine, while producing as much or greater torque for startup and acceleration. And Avto Metals creates an entirely new class of materials, making possible new technologies and products as yet unknown.

Together, these technologies have the potential to reinvigorate and transform some of the world's largest and oldest industries, giving their engineers new design options and making their products more useful, less expensive, and more environmentally friendly. This transformation process will, we expect, drive worldwide economic growth for several decades and will, we believe, become the Borealis Industrial Revolution.

## **Borealis Patents and Intellectual Property**

All of these technologies, and others, are currently in active development. Our technologies are protected by numerous patents issued and pending and by proprietary knowledge of the fields of study. In furtherance of its strategy to develop and own technologies that are designed to fundamentally change basic industries, Borealis Technical Limited, a 98% owned subsidiary of Borealis, has an increasing number of patents either issued, approved for issue, or pending and provisional, covering wide ranging scientific endeavors. Borealis Technical Limited is the holding company for all of the Borealis Family's scientific research and technology development programs and is the company that Borealis uses for all of its intellectual property operations, including, but not limited to, patent preparation, filing and management. These patents provide the legal framework for our sales of our patented proprietary products, beginning with WheelTug.

Many of our patents, in the opinion of our technical staff, are what the courts label "pioneer" patents, reflecting the fact that they are the first patents to be issued in an entirely new field of technology, or represent a technical revolution in a previously-defined field. Pioneer patents are those to which most later patents in a field make reference, or on which later patents build by adding new improvements to the field. Because pioneer patents represent the result of groundbreaking scientific discoveries or development, the courts have found that they merit a wide breadth of protection in construing their claims and specifications.

Our patents generally fall into three main categories. The first category of issued patents includes Chorus Motors plc and WheelTug plc patents. Such patents give us exclusivity over the high-phase-order motor world with the first application being the use of WheelTug for aircraft worldwide. The second category of patents covers patents with applications in physics, relating mostly to thermionics and the custom design of eV (electron volt work functions), which we believe will make thermionic devices economically viable, for example, in production of electrical power. The third category includes basic operational patents on items like generators and gen-sets and how to operate them efficiently. We are working on patenting a wide range of other items that are still under development, all of which should provide proprietary and patent-protected products.

Because our scientific discoveries and technical advances are the core of our business, we are very careful about protecting these assets. Patenting and otherwise protecting our technologies is an important activity at Borealis and consumes a considerable portion of our resources. We have developed an extensive library of intellectual property and families of patented proprietary products and we intend to protect all of them vigorously. Patented proprietary products are the key to long-term economic health.

In fiscal 2015 we continued to expand our portfolio of issued U.S. patents. We also filed applications in the U.S. and internationally for several additional patents, and now have a considerable number of applied-for, in-process, and pending patent applications, both in the US and around the world. Many of our recent applications have covered improvements to or additional claims for the technologies we have already announced, but some were provisional or initial patent applications for new technologies that we have not yet disclosed. Our scientific teams build what they invent and patent and stay at their basic scientific work year in and year out without researchers' usual grant proposal problems.

We are always examining, under our present discounted expected value metric, our scientists' ideas for wholly new or radically improved technologies, and we are always working on the development of some of these ideas. But because many of these ideas are "game changers"—either a fundamental advance in what is generally presumed to be a mature technology or an altogether undeveloped field—we keep our work confidential until after the primary patents on a technology have issued. We have several projects that appear to be just these sort of "game changers" that may or may not ending up being of value.

## **Borealis Properties and Operations**

## **Principal Technologies**

Avto Metals: www.avtometals.gi

Avto Metals plc was incorporated on 6 October 2004. Avto Metals technology apparently provides the necessary means to custom-design electron-volt work functions in metals and other materials. Avto Metals plc is continuing to research new applications and technologies in related scientific fields. This science should find applications in many areas.

#### Chorus Meshcon & WheelTug: www.chorusmotors.gi

The Chorus Meshcon technology is a novel electric motor/drive combination that uses electromagnetic harmonics to greatly increase the motor's torque. A Chorus system is smaller, lighter, and is expected to sell for a premium over a conventional motor with the same output. It is ideal for traction applications such as electric cars and trains.

WheelTug plc was incorporated on 9 February 2005, as a subsidiary of Chorus Motors plc, and is the assignee of the WheelTug programme announced with Boeing Phantom Works on 8 November 2004. The WheelTug technology will be the first of our technologies brought to market.

#### Cool Chips: www.coolchips.gi

Cool Chips are solid-state devices based on thermionics that pump heat to produce cooling, refrigeration, or air conditioning. They are small, lightweight, non-polluting and non-corrosive, and are projected to be more efficient than any existing thermal management technology.

Cool Chips Military Sales plc was incorporated on 8 February 2005, as a subsidiary of Cool Chips plc, as it is expected that our first sales of Cool Chips technology will be delivery of products for high value applications.

## Power Chips: www.powerchips.gi

Power Chips are devices that absorb heat to produce electrical power. They are silent, non-polluting, scalable, portable, and can operate anywhere there is a source of heat. We expect them to replace many existing technologies for generating electricity. Power Chips devices are being developed in parallel with Cool Chips.

#### Roche Bay: www.rochebay.com

A subsidiary company, Roche Bay plc, owns interests varying from 25% to 100% in several iron ore deposits, including significant royalty positions, located on the Melville Peninsula, Nunavut, Canada, which contain one of the world's largest undeveloped resources of magnetite iron ore ( $Fe_3O_4$ ). This significant long term investment of Borealis dating back to 1965 has been written down to a nominal value. We are of the opinion that the entire Roche Bay property has a significant potential future value.

## Freuchen Bay Intracratonic Rift Project: www.faraway.gi

Faraway plc, a subsidiary company, owns 100% of 10,350 acres of Government of Canada long term renewable leases near Freuchen Bay, Melville Peninsula, Nunavut, Canada. These leases cover a series of geophysical/geochemical anomalies that our consultants tell us sit astride an intracratonic rift. The directors conducted an impairment assessment and the conclusion was to write the properties down to nominal values. We at Borealis feel this property has significant potential future value.

## Organizational Structure

Borealis Exploration Limited, the parent of the Borealis Family of Companies, is a holding company and owns indirectly a majority of all our operating subsidiaries. Borealis owns 98% of Borealis Technical Limited, which conducts all our research and itself owns a majority interest in each of the operating companies. Borealis Technical owns all our patents and has licensed all rights to them to the respective operating subsidiaries. Borealis Technical receives 50% of all sublicense revenue and 8% of all other revenue from its operating subsidiaries.

In addition, we see the additional following benefits for our corporate structure.

Borealis' operating subsidiaries have provided a vehicle for raising capital during our development phase. Second, each of our technologies appeals to different markets, and having each managed separately makes possible greater focus. And third, many investors may prefer investing in a company concentrating on a specific technology. As additional technologies are disclosed, we will establish new companies to operate these in the same manner. Borealis and all of our operating subsidiaries are incorporated in Gibraltar.

Borealis Exploration Limited has 5,000,000 shares authorized and outstanding. Each operating subsidiary has 10,000,000 shares authorized, of which Borealis Technical owns at least 5,200,000 shares. We do not intend to propose that shareholders authorize any additional shares in Borealis or any subsidiary. Given the strict limits on share issuance contained in our Memoranda and Articles of Association (which may be found in the Corporate Information sections of our websites), our shares will not be increased from the present authorized levels without enormous difficulty. We have issued no additional Borealis Exploration Limited shares since before our move to Gibraltar in 1998. This shows the commitment of management to make Borealis Exploration Limited shares valuable and shows the determined restraint of management in not issuing new shares. Virtually all public companies issue new shares all the time. Your company is one of the few exceptions to this rule.

The rights, obligations and privileges of the share capital of the Company are set forth in Articles 2-51 of (pages 2-6) its Memorandum and Articles of Association (again, which may be found in the Corporate Information section of its website)

The following table shows the shares owned by Borealis (through Technical) in each major subsidiary, the total shares outstanding in each company, and the proportion of the total owned by Borealis, at fiscal year-end.

## **Ownership of Borealis Publicly Traded Subsidiaries**

Company	Borealis shares	Total shares outstanding	% Borealis
Avto Metals plc	5,200,003	5,377,115	95%
Chorus Motors plc	5,215,175	6,689,965	77%
Cool Chips plc	5,223,377	8,251,947	62%
Faraway plc	5,200,004	6,312,874	82%
Power Chips plc	5,222,583	8,035,118	64%
Roche Bay plc	5,223,000	7,373,953	69%

Our headquarters and legal domicile are in Gibraltar. Borealis operates as a virtual company, and the Internet plays a dominant role in our day-to-day work. It is the means by which we manage our businesses, discuss new ideas, and promote ourselves to the outside world. Modern communications technology has allowed us to circumvent the traditional problems associated with working on four continents and twenty time zones. Because of this, we have access to facilities and personnel about which a company of our size would normally only be able to dream.

Borealis has consultants around the world, all of whom work over e-mail. Management and technical discussions take place over the Net. Borealis runs a continual Board of Directors meeting 24 x 365, with an annual traffic of well over 5,000 messages to each board member and members of management. Borealis has intense direct participatory management, and many consultants to the Company sit in on the board meetings and provide input although they are not voting members.

Our Website, www.borealis.gi, makes information about our technology available, and informs shareholders, other companies, and the general public about Borealis. Our major disclosed technologies are described on the website in detail. Through this we are able to keep people better informed than through traditional channels. Your management uses this technology to maintain a close relationship with our shareholders.

This virtual company structure is great to work with and allows us to have many people directly involved in the decision-making processes at Borealis. This approach may not be conventional, but the results to date have validated the business structure.

## **Investor Information**

Extensive information for investors can be found on our Website at http://www.borealis.gi. Our annual and quarterly reports for more than the past five years are posted there, as well as full information about the Company and our technologies. The site also has links to quotation systems that report our current stock prices.

## **Borealis Share Capital**

100% of the issued and outstanding shares of Borealis common stock, which represents 5,000,000 shares of common stock, each with a par value of U.S. \$0.01 (the "Shares"), are listed on the Prague Stock Exchange. The Shares are registered with the CDCP, which is the Czech central securities depository, and no physical share certificates will be issued to shareholders. The security identification number (ISIN code) of the Shares is: GI000A1J9JJ0 (0 = Zero).

As stated in the Memorandum and Articles of Association of Borealis, there are no limitations on transferability of the Shares

As at the date hereof, there are no restrictions of any nature on voting rights and there are no special or different voting rights in respect of any Shares insofar as all Shares have identical voting rights.

To the knowledge of Borealis, as at the date hereof, there are no agreements between any shareholders that restrict transferability of Shares.

There are no special rules in respect of the election and recall of the statutory body, amendment to the Articles of Association or similar document of Borealis except that the capital or authorised capital of Borealis can only be increased beyond 5,000,000 shares by a two-thirds (2/3) approval of not less than 75% of the total outstanding shares of Borealis voting at a meeting of the members.

## **Borealis Board of Directors**

The business and affairs of the Company shall be managed by the directors who may exercise all such powers of the Company as are noted by the Ordinance or by the Memorandum or the Articles of Association required to be exercised by the members of the Company, subject to any delegation of such powers as may be authorised by the Articles of Association and to such requirements as may be prescribed by a resolution of shareholders of the Company; but no requirement made by a resolution of shareholders shall prevail if it be inconsistent with the Articles of Association nor shall such requirement invalidate any prior act of the directors which would have been valid if such requirement had not been made.

## **Dividend Policy**

Borealis did not pay any cash dividends in fiscal 2013, 2014 or 2015. Borealis does not anticipate paying cash dividends in fiscal 2016 or the foreseeable future. Borealis currently intends to retain any future earnings to fund the development and growth of its business. Holders of common stock are entitled to receive dividends ratably when, as, and if declared by the board of directors out of funds legally available therefor.

## Governmental, Legal and Arbitration Proceedings

The Company is aware of no governmental, legal, or arbitration proceedings, including, but not limited to, actual, threatened or pending, in respect of the Borealis Family of Companies except for a threatened action by its former company secretary, STM Fidecs Management Limited ("STM") alleging non-payment of fees for company secretary work in an amount equal to £241,845. Borealis disputes STM's claim, which, in the view of Borealis, has no merit.

## Administrative, Management and Supervisory Bodies and Senior Management

Borealis has an audit committee, remuneration committee, and an Executive Committee though none are required under applicable Gibraltar law. All these Committees are comprised of Wayne S. Marshall, Isaiah W. Cox and Rodney T. Cox. These Committee Members communicate multiple times every working day by phone and e-mail on Company business. Members of the Executive Committee communicate with all the Directors and a wide range of shareholders who have signed very stringent Non-Disclosure Agreements no less than several times each week on the extensive Borealis activities. The Board of Directors and shareholders who have signed non-disclosure agreements hold weekly open Board meetings where company business is discussed in detail. These meetings are open to all shareholders who are willing to sign the required non-disclosure agreements. All our Directors and many of our shareholders take an active interest in and are great supporters and participants in our various activities. Borealis complies with the corporate governance regime in force in Gibraltar (which is wholly codified in Gibraltar's Companies Act 2014, which in turn is loosely modeled on UK company law) as set forth below in pertinent part:

- 1. For the purpose of incorporation, the Gibraltar Companies Act 2014 (the "Act") requires that Gibraltar companies produce a Memorandum of Association, setting out the objects of the company, in addition to stating the share capital, allotment of shares, as well as Articles of Association, which set out the rules and regulations of the company. Together these make up the constitution of the company.
- The Act also provides for a set of model articles. These may, but are not required to, be adopted by a company expressly, in whole or in part.
- 3. A company's Articles must deal, inter alia, with the buying and selling of shares, pre-emption rights, the increase or reduction of share capital and how decisions by the board of directors or by the shareholders can and will be passed by resolution, but always within the framework provided by the Act.
- 4. The Act deals with procedures in relation to mergers and divisions, and the distribution of assets and profits.
- 5. The Act requires the keeping and registration of company registers such as register of directors, register of members (shareholders). It also requires changes to directors and members to be notified to the registrar of companies, usually within 14 days of such a change.
- 6. The Act also deals with directors' duties and obligations, in particular by requiring directors to declare any interest they may have in contracts being negotiated on behalf of the company. There are also provisions in relation to qualifications required by directors and secretaries.
- 7. The Act requires the filing of annual returns, the keeping and auditing of accounts and sets out requirements for annual general meetings and extraordinary general meetings.

Each director and officer in the Borealis family of companies has an address at 43-1 Main Street, Gibraltar.

## Material Agreements (other than in the ordinary course of business)

Borealis has the following material agreements in force (each of which is oral):

Avto Metals plc pays 1/8 of Borealis's annual expenses Chorus Motors plc pays 1/8 of Borealis's annual expenses WheelTug plc pays 1/8 of Borealis's annual expenses Cool Chips plc pays 1/8 of Borealis's annual expenses Cool Chips Military Sales plc pays 1/8 of Borealis's annual expenses Faraway plc pays 1/8 of Borealis's annual expenses Power Chips plc pays 1/8 of Borealis's annual expenses Photon Power plc pays 1/8 of Borealis's annual expenses

Borealis pays each director U.S. \$1,800 per month of service.

Borealis confirms:

- (i) that there are no material agreements to which it is a party that become effective, change or expire upon a change of control of Borealis as a result of a takeover bid, and the effects thereof; and
- (ii) that there are no material agreements between it and the members of any of its statutory bodies or employees that Borealis is obligated to perform in the event of the termination of their office or employment in connection with a takeover bid.

## **Internal Control**

Borealis has a committee of directors consisting of Rodney T. Cox, Wayne Marshall, Jan Vana and Isaiah Cox that review and approve all material payments and receipt of funds so that access to Borealis's finances, bank accounts and outgoing and incoming transfers of funds is at all times subject to the review and oversight of such director committee. Apart from this, Borealis has no internal control system in place.

## **Annual Meetings**

The procedure at each Borealis annual meeting is as follows:

#### 1. SOLICITATION OF PROXIES:

Borealis prepares and delivers to each shareholder a notice of annual meeting and an information circular in connection with the solicitation of proxies for use at its Annual Meeting of Members to be held in July of each year in Gibraltar and via the Internet at <a href="https://www.borealis.gi">www.borealis.gi</a>, with the record date of the meeting being two months prior to the date of the annual meeting.

#### 2. QUORUMS AND VOTING:

The authorised share capital of the Company is \$50,000, consisting solely of one class of common shares divided into 5,000,000 shares with par value of \$0.01 per share, of which 5,000,000 shares are outstanding. Each holder of record of a common share as of the Record Date for the meeting is entitled to attend the meeting and to cast one vote for each share. Proxies are accepted by hand delivery, mail, e-mail, fax, and the Company's Internet website at www.borealis.gi. Any resolution to be voted upon at the meeting must be approved by a majority of the votes cast, unless the Company's Articles of Association stipulate a number or proportion of the votes cast in excess of a majority. The meeting will proceed as long as there is a quorum at the meeting place including the voted proxies.

## 3. REVOCATION OF PROXIES:

Each shareholder has the power to revoke a proxy at any time as long as it has not been exercised. In addition to revocation in any other manner permitted by law, a member giving a proxy pursuant to this solicitation who wishes to revoke the proxy instrument may do so in writing. A revocation must be executed by the member, or by his attorney authorised in writing, or, if the member is a Corporation, under its Corporate seal or by an officer or attorney thereof duly authorised, and received by mailed, or deposited, at any office of the Company, via e-mail to proxy@borealis.gi, or by fax to +44.207.504.3593 at any time up to and including 1700 GMT of the last business day preceding the day of the meeting, or any adjournment thereof at which the proxy is to be used, or with the Chairman of such meeting on the day of the meeting, or adjournment thereof.

#### 4. DIRECTORS, AUDITORS AND OTHER MATTERS

At each annual meeting, the shareholders vote on directors whose terms have expired and are re-running for nomination to the board, the auditors and any other matters that have been properly brought before the shareholders for a vote.

## Forward Looking Statement

The discussion of the Company's business and operations in this report includes in several instances forward-looking statements, which are based upon management's good faith assumptions relating to the financial, market, operating and other relevant environments that will exist and affect the Company's business and operations in the future. All technical, scientific, and commercial statements regarding technologies and their impacts are based on the educated judgment of the Company's technical and scientific staff. No assurance can be made that the assumptions upon which management based its forward-looking statements will prove to be correct, or that the Company's business and operations will not be affected in any substantial manner by other factors not currently foreseeable by management or beyond the Company's control.

All forward-looking statements involve risks and uncertainty. The Company undertakes no obligation to publicly release the result of any revisions to these forward-looking statements that might be made to reflect the events or circumstances after the date hereof, or to reflect the occurrence of unanticipated events; including those described in this report, and such statements shall be deemed in the future to be modified in their entirety by the Company's public pronouncements, including those contained in all future reports and other documents filed by the Company with the relevant Securities Commissions.

## **Corporate Information - Gibraltar Registered Number 66632**

## **Corporate Headquarters**

Suite 1 43 Main Street Gibraltar

#### **Auditors**

Moore Stephens Suite 5 Watergardens 4 Waterport Gibraltar

## **Company Secretary**

Mark Radom Nachal Maor 1 Suite 2 Ramat Bet Shemesh Israel 99623

## **Stock Trading Information**

Borealis Exploration Limited common shares are traded on the Prague Stock Exchange under the symbol **BOREY.** The shares' ISIN Number is GI000A1J9JJ0.

Borealis shares are also quoted in the United States over-the-counter market on the Pink Sheets, at www.otcmarkets.com under the symbol **BOREF**. CUSIP # X6919W 10 0.

## Registrar and Transfer Agent

OTR, Inc.
Securities Transfer Agent & Registrar 1000 SW Broadway, Suite 920
Portland, Oregon 97205-3061, USA

Tel: +1.503.225.0375 Fax: +1.503.273.9168

## 5. STATEMENT OF DIRECTORS' RESPONSIBILITIES

Company law requires the directors to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the company for that period. In preparing those financial statements, the directors are required to:

- a) select suitable accounting policies and then apply them consistently
- b) make judgments and estimates that are reasonable and prudent
- state whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements
- d) prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business

The directors are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Gibraltar Companies Act and the Gibraltar Companies (Accounts) Act 1999. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

#### 6. AUDITORS

Moore Stephens Limited have expressed their willingness to continue in office. A resolution for their reappointment will be proposed at the next annual general meeting.

#### 7. MISCELLANEOUS

Set forth below is disclosure required under International Financial Reporting Standards that supplements the Consolidated and Company Financial Statements of Borealis for the year ended 31 March 2015.

No person with a direct or indirect interest in our capital or voting rights notifiable under national law is known to us.

#### Mineral resources

Management conservatively estimates what the net proceeds of the mineral resources would be in the event of a forced sale, to ensure that their carrying costs are realistic.

#### **Intangible assets**

To determine the life of an intangible asset, the following factors (among many) were taken into account: including:

- (a) The expected usage of the asset by the entity: WheelTug plc should be able to lease WheelTugs for as long as there is a commercial airline market. WheelTugs should have a very long life with many parts of the system having over 100,000 Hours Mean Time Before Failure. This is principally the electric motor and the inverter electronics. Some items will have a lower life, like the gearing, but we are expecting plus 20,000 hours MTBF. WheelTugs will be in huge demand as they will determine the success or failure of many airlines as the competitive advantages provided are so serious that airlines without WheelTug will be challenged to successfully compete with airlines that have WheelTug. WheelTugs can be successfully refurbished which gives them a very long life indeed.
- (b) And whether the asset could be managed efficiently by another management team differently: There are lots of ways this business can by run. Our model allows for patented proprietary profits instead of cost plus, which would also be profitable, but not nearly so profitable,

(c) The typical life cycle of the product, as well as public information on estimates of useful life for similar types of assets that are used in a similar way:

We expect the life cycle of the product to be in excess of 50 years, but we will be continually upgrading the product. There are no current aerospace products that are sold under the terms we have agreed to with our 22 airline customers to date.. It should be noted that the DC-3s from the 1930's are still flying. Airplanes have a very long life and WheelTug should extend the economic life of most aircraft to the certified life of the air frame.

Impact of technical obsolescence, technological, commercial or otherwise: We will spend whatever is necessary to keep our dominant position in this market. We are very far ahead of any and all competitors and intend to keep that position.

- (d) The stability of the industry in operating assets and changes in market demand for products or services produced with the asset; Airlines have always lost money. OEMs, of which we are one, make serious money in the airline business. We are supplying a patented proprietary product that should have a very long profitable life.
- (e) Expected actions by competitors, whether current or potential competitors:

  Our competitors have not come to grips with our dominant position. When they do, our patents will go a long way to ameliorate any competitive problems. They will jump into this business once they see the profitability, and we are highly confident that we can defend our position. We continue to apply for new patents as our knowledge base grows and our understanding of the Airplane business develops.
- (f) The level of maintenance expenditure required to achieve the expected economic benefits: At most, US\$30,000/year/per WheelTug. It should not be that high but that is about 8% of our minimum gross revenue per system.
  Of assets as well as the ability and willingness of the entity to achieve that level; We are going nowhere and have never seen a better business. We have looked at thousands.
- (g) The period of control over the asset and the legal limits or other similar limits on the use of assets, such as the expiration date of the leases associated with it, and
- (h) If the asset's useful life depends on the useful life of other assets held by the entity: Expiration of leases makes no difference if not renewed we just pick up the device and install on another aircraft.

By order of the Board 28 July 2015

Rodney T. Cox Director Wayne S. Marshall Director

#### Independent auditor's report to the members of Borealis Exploration Limited

#### Report on the financial statements

We have audited the consolidated and company financial statements of Borealis Exploration Limited for the year ended 31<sup>st</sup> March 2015 which comprise the consolidated and company statement of income and comprehensive income, the consolidated and company statement of financial position, the consolidated and company statement of changes in equity, the consolidated and company statement of cashflows and the related notes. These financial statements have been prepared under the accounting policies set out therein.

This report, including the opinion, has been prepared for and only for the company's members as a body in accordance with Section 182 of the Companies Act and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

#### Directors' responsibilities for the financial statements

The directors are responsible for the preparation and true and fair presentation of these financial statements in accordance with applicable law in Gibraltar and International Financial Reporting Standards as adopted by the EU. This responsibility includes designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

#### Auditors' responsibilities

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and true and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Independent auditor's report to the members of Borealis Exploration Limited - continued

#### Basis for qualified opinion

The company has not recognised the proceeds from changes in non-controlling interests in the Consolidated Statement of Equity in accordance with International Financial Reporting Standard No.10 (IFRS No.10). These proceeds are presented by the company in the Consolidated Statement of Loss and Comprehensive Income under other comprehensive income; profit on sale of shares in subsidiary companies and gain on change in stake in business. We disagree with this accounting treatment as any transactions with equity holders should be recorded in the Consolidated Statement of Equity in accordance with IFRS No.10. The effect of accounting for this in accordance with IFRS 10 would result in a total comprehensive loss for the year of \$2,875,982, a restatement for 2014 to a total comprehensive loss for the year of \$4,432,894 and the related disclosure of amounts attributable to owners and non-controlling interests.

#### **Qualified opinion**

In our opinion, except for the effects of the matter referred to in the preceding paragraph, the financial statements:

- give a true and fair view, in accordance with International Financial Reporting Standards of the state of the group's and the company's affairs as at 31<sup>st</sup> March 2015 and of the group's and company's results for the year then ended; and
- have been properly prepared in accordance with the Companies Act and the Companies (Accounts) Act 1999.

#### **Emphasis of matter**

Without modifying our opinion, we draw attention to note 3 in the consolidated financial statements which highlights the existence of a material uncertainty relating to conditions that may cast doubt about the group's and company's ability to continue as a going concern.

#### Opinion on other matter prescribed by the Companies Act

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

## 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 requires us to report to you if, in our opinion:

- the company has not kept proper accounting records; or
- if information specified by law regarding directors' remuneration and other transactions is not disclosed; or
- we have not received all the information and explanations we require for our audit.

Kieran Power Statutory Auditor For and on behalf of Moore Stephens Limited

Date:

#### Consolidated Statement of Loss and Comprehensive Income Year ended 31 March 2015

Year ended 31 March 2015	Restated			
		2015	2014	
	Note	\$	\$	
Revenue		27 000		
Revenue		27,000	-	
Expenditure	6	(3,161,268)	(3,222,440)	
Operating loss	6	(3,134,268)	(3,222,440)	
Other gains and losses				
Loss on disposal of financial assets		(44,277)	(40,192)	
Fair value loss on financial assets		(120,323)	(148,714)	
Net foreign exchange loss		(6,209)	(54,241)	
Impairment of mining resources	14	(2,010,973)	-	
Impairment of investments in subsidiaries	10	(710,227)	_	
Gain on write off of payables	17	1,874,675	_	
Cam on white on or payables	.,	1,07 1,070		
Finance cost				
Financing gain/(loss)	18	1,287,089	(961,421)	
Interest received		-	22	
Interest paid		(11,469)	(5,908)	
Loss before income tax		(2,875,982)	(4,432,894)	
Income tax expense		_	_	
Loss for the year		(2,875,982)	(4,432,894)	
Other comprehensive income:				
Those that are not recyclable net of tax:				
Profit on disposal of shares in subsidiary companies	5	2,869,944	4,903,610	
Gain on buy-out option	14	-	487,528	
Gain on change in stake in business	10/5	695,186	50,040	
Other comprehensive income for the year after tax		3,565,130	5,441,178	
Total comprehensive income for the year		\$ 689,148	\$ 1,008,284	
Total comprehensive income for the year attributable	to:			
Owners of the Parent		1,559,498	735,832	
Non-controlling interests		(870,350)	272,452	
Tion controlling interests		(070,000)	212,732	
Earnings per share from continuing operations attribe the equity holders of the company during the year	utable to			
Basic earnings per share	11	\$ (0.58)	\$ (0.89)	

The Borealis Family of Companies has had no discontinued activities during the year, accordingly, the above result relates solely to continuing activities.

## Company Statement of Loss and Comprehensive Income Year ended 31 March 2015

Year ended 31 Warch 2015	2015 \$		2014 \$
Revenue	-		54,000
Expenditure			
Administration expenses	(151,031)		127,345)
Amortisation Expense	(64,002)		(58,152)
Consulting fees	(220,068)		212,353)
Corporate fees	(42,019)		(52,987)
Depreciation	(3,398)		(4,546)
Directors fees	(152,200)		179,200)
Foreign exchange gain/(loss)	6,158		(11,994)
Interest	(8,811)		(5,902)
Professional fees	(208,060)		256,428)
Rent and utilities	(142,583)		140,405)
Shareholder expenses	(32,358)		(44,500)
Telephone, internet and postage	(27,576)		(36,185)
Travel and entertainment	(141,728)		(94,577)
Insurance	(105,448)	-	130,570)
Audit fees	(98,993)	(1	114,611)
Bank charges	(3,461)		(5,792)
Operating loss	(1,395,579)	(1,4	121,547)
Other gains and losses			
Recharged to subsidiaries	1,395,579	1,4	121,547
Gain on write off of payables 17	1,874,675		-
Share of loss of investment in subsidiary	-		(52,000)
Finance cost			
Financing gain/(loss) 18	1,287,089	(9	961,421)
Profit/(loss) before income tax	3,161,764	(1,0	013,421)
Income tax expense	-		-
Profit/(loss) for the year	3,161,764	(1,0	013,421)
Total comprehensive income/(loss) for the year	\$ 3,161,764	\$ (1,0	13,421)
		· · · · · · · · · · · · · · · · · · ·	_

The company has had no discontinued activities during the year, accordingly, the above result relates solely to continuing activities.

Registered number: 66632

**Consolidated Statement of Financial Position** 

31 March 2015

Assets Non-current assets	Notes	2015 \$	Restated 2014 \$
Property, plant and equipment Intangible assets	13 12	12,786 12,446,151	16,184 11,261,226
Mineral resources	14	2	1,993,535
Total non-current assets		12,458,939	13,270,945
Current assets Other receivables	16	26,303	367,351
Financial assets at fair value through the profit or loss Cash and cash equivalents	15	90,517 75,574	406,136 93,722
Total current assets		192,394	867,209
Total assets		\$ 12,651,333	\$ 14,138,154
Equity and liabilities			
Capital and reserves attributable to owners of the company Ordinary shares	19	50,000	50,000
Share premium Retained earnings		24,241,030 (27,425,714)	24,241,030 (28,985,212)
Equity attributable to owners of the company Non-controlling interest		(3,134,684) 9,177,847	(4,694,182) 10,048,197
Total equity		6,043,163	5,354,015
Liabilities			
Non-current liabilities Other financial liabilities	18	1,431,200	2,720,169
Current liabilities Trade and other payables	17	5,176,970	6,063,970
Total liabilities		6,608,170	8,784,139
Total equity and liabilities		\$ 12,651,333	\$ 14,138,154
We confirm that to the heat of our knowledge the annual report of	and the conc	olidated appual r	oport givos o

We confirm that to the best of our knowledge the annual report and the consolidated annual report gives a true and fair view of the financial situation, business activities and economic results of the Borealis Family of Companies for the last accounting period, and prospects for the future development of its financial position, business activities and economic results.

By order of the Board 28 July 2015	
Rodney T. Cox	Wayne S. Marshall
Director	Director

Registered number: 66632

**Company Statement of Financial Position** 

31 March 2015

Assets	Notes	2015 \$	2014 \$
Non-current assets			
Property, plant and equipment	13	12,786	16,184
Intangible assets	12	811,288	758,291
Investments in subsidiaries	10	83,950	83,950
Total non-current assets		908,024	858,425
Current assets			
Trade and other receivables	16	1,926,528	2,084,926
Cash and cash equivalents		68,972	39,023
Total current assets		1,995,500	2,123,949
Total assets		\$ 2,903,524	\$ 2,982,374
Equity and liabilities			
Capital and reserves attributable to owners of the company Ordinary shares Share premium Retained earnings	19	50,000 24,241,030 (54,309,304)	50,000 24,241,030 (57,471,068)
Total equity		(30,018,274)	(33,180,038)
Liabilities Non-current liabilities Other financial liabilities	19	1,431,200	2,720,169
Command Habilida			
Current liabilities Trade and other payables	17	31,490,598	33,442,243
Total liabilities		32,921,798	36,162,412
Total equity and liabilities		\$ 2,903,524	\$ 2,982,374

We confirm that to the best of our knowledge the annual report and the consolidated annual report gives a true and fair view of the financial situation, business activities and economic results of the Borealis Family of Companies for the last accounting period, and prospects for the future development of its financial position, business activities and economic results.

By order of the Board 28 July 2015	
Rodney T. Cox	Wayne S. Marshall
Director	Director

## Consolidated Statements of Changes in Equity Year ended 31 March 2015

	Called up Share	Share Premium	Other	Retained	Non- controlling	
	Capital \$	Account \$	reserves \$	earnings \$	interest \$	Total equity \$
	·	*	•		·	•
Balance at 1 April 2013	50,000	24,241,030	-	(29,102,309)	9,157,010	4,345,731
Comprehensive income for the year	-	-	-	1,008,284	-	1,008,284
Change in ownership interest of subsidiaries	-	-	-	(272,452)	272,452	-
Restatement of non controlling interest				(618,735)	618,735	
Balance at 1 April 2014	\$50,000	\$24,241,030	-	\$(28,985,212)	\$10,048,197	\$5,354,015
Comprehensive income for the year	-	-	-	689,148	-	689,148
Change in ownership interest of subsidiaries	-	-	-	870,350	(870,350)	-
Balance at 31 March 2015	\$50,000	\$24,241,030	-	\$(27,425,714)	\$9,177,847	\$6,043,163
·						

## COMPANY STATEMENT OF CHANGES IN EQUITY Year ended 31 March 2015

	Called up Share Capital \$	Share Premium Account \$	Retained earnings \$	Total equity
Balance at 1 April 2013	50,000	24,241,030	(56,457,647)	(32,166,617)
	-	-	(1,013,421)	(1,013,421)
Balance at 1 April 2014	\$50,000	\$24,241,030	\$(57,471,068)	\$(33,180,038)
Comprehensive income for the year	-	-	3,161,764	3,161,764
Balance at 31 March 2015	\$50,000	\$24,241,030	\$(54,309,304)	\$(30,018,274)

## Consolidated Statement of Cash Flows Year ended 31 March 2015

	2015 \$	Restated 2014 \$
Cash flows from operating activities		
Cash generated from operations	(189,495)	(530,476)
Interest paid	(11,469)	(5,908)
Net cash generated from operating activities	(200,964)	(536,384)
Cash flows from investing activities		
Mineral resources expenditures	(17,440)	(19,518)
Proceeds from disposal of marketable securities	142,961	70,541
Purchases of intangible assets	(1,248,927)	(1,963,214)
Interest received	-	22
Net cash used in investing activities	(1,123,406)	(1,912,169)
Cash flows from financing activities		
Proceeds from sale of subsidiaries shares	1,318,500	2,284,164
Repayments of borrowings	(1,880)	(26,200)
Shares repurchased	(9,000)	-
	(3,223)	
Net cash used in financing activities	1,307,620	2,257,964
Net decrease in cash, cash equivalents and bank overdrafts	(16,750)	(190,589)
Cash and cash equivalents at beginning of the year	93,722	287,740
Exchange losses on cash and bank overdrafts	(1,398)	(3,429)
Cash and cash equivalents at end of year	\$ 75,574	\$ 93,722

## Consolidated Statement of Cash Flows (continued) Year ended 31 March 2015

Cook governed from analyticus	2015 \$	Restated 2014 \$
Cash generated from operations	000 4 40	4 000 004
Net income and comprehensive income for the year	689,148	1,008,284
Adjustments for	0.000	4.540
Depreciation	3,398	4,546
Amortisation	64,002	58,152
Share-based payments – equity settled	1,552,730	2,605,493
Fair value (gains)/losses on at fair value through		
profit or loss	120,828	148,714
Finance costs	11,469	5,886
Share of loss of investment in subsidiary	-	52,000
Foreign exchange losses/(gains) on operating activities	6,209	54,241
Loss on sale of marketable securities	44,277	40,192
Non cash proceeds from buy out options	· -	(299,541)
Non cash financing (gain)/loss	(1,287,089)	961,421
Profit on sale of shares in subsidiary companies	(2,869,944)	(4,903,610)
Gain on change in stake in business	(694,206)	(50,040)
Gain on write off of payables	(1,874,675)	-
Impairment of mining resources	2,010,973	_
Impairment of investment in subsidiaries	710,227	_
Changes in working capital	,	
Trade and other receivables	341,048	(367,351)
Trade and other payables	982,110	151,137
Cash generated from operations	\$ (189,495)	\$ (530,476)

## Company Statement of Cash Flows Year ended 31 March 2015

	2015 \$	2014 \$
Cash flows from operating activities		
Cash generated from operations	157,564	74,110
Interest paid	(8,811)	(5,908)
Net cash generated from operating activities	148,753	68,202
Cash flows from investing activities		
Purchases of intangible assets	(116,999)	(110,668)
Net cash used in investing activities	(116,999)	(110,668)
Ocal flagge from flagged to the		
Cash flows from financing activities Repayments of borrowings	(1,880)	(26,200)
	•	
Net cash used in financing activities	(1,880)	(26,200)
Net increase/(decrease) in cash, cash equivalents and bank overdrafts	29,874	(68,666)
Cash and cash equivalents at beginning of the year	39,023	108,326
Exchange gains/(losses) on cash and bank overdrafts	75	(637)
Cash and cash equivalents at end of year	\$ 68,972	\$ 39,023

# Company Statement of Cash Flows (continued) Year ended 31 March 2015

	2014	
	\$	\$
Cash generated from operations		
Net income and comprehensive income for the year	3,161,764	(1,013,421)
Adjustments for		
Depreciation	3,398	4,546
Amortisation	64,002	58,152
Gain on reversal of payable	(1,874,675)	-
Non cash financing (gain)/loss	(1,287,089)	961,421
Share of loss of investment in subsidiary	-	52,000
Interest	8,811	5,908
Foreign exchange (gains)/losses on operating activities	(6,158)	11,994
Changes in working capital		
Trade and other receivables	158,398	(609,130)
Trade and other payables	(70,887)	602,640
Cash generated from operations	\$ 157,564	\$ 74,110

The notes on pages 38 to 66 form an integral part of these consolidated financial statements.

Notes to the Consolidated Financial Statements Year ended 31 March 2015

#### 1. Significant Accounting Policies

These financial statements have been prepared in accordance with International Financial Reporting Standards, International Accounting Standards and Interpretations (collectively IFRSs) issued by the International Accounting Standards Board (IASB) as adopted by the European Union ("adopted IFRSs"), the Gibraltar Companies Act, the Gibraltar (Companies Accounts) Act 1999 and the Gibraltar Companies (Consolidated Accounts) Act 1999.

#### a. Basis of accounting

The principal accounting policies adopted in the preparation of the financial statements are set out below. The policies have been consistently applied, unless otherwise stated.

The preparation of financial statements in compliance with adopted IFRS requires the use of certain critical accounting estimates. It also requires management to exercise judgment in applying the accounting policies to Borealis Exploration Limited and it's subsidiaries, hereafter after referred to as the 'Family'. The areas where significant judgments and estimates have been made in preparing the financial statements and their effect are disclosed in note 4.

These consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments, which are measured at fair value.

#### b. Basis of consolidation

From 1 January 2010, the total comprehensive income of non-wholly owned subsidiaries is attributed to owners of the parent and to the non-controlling interests in proportion to their relative ownership interests. Before this date, unfunded losses in such subsidiaries were attributed entirely to the Family. In accordance with the transitional requirements of IAS 27 (2008), the carrying value of non-controlling interests at the effective date of the amendment has not been restated.

The acquisition method of accounting is used by the Family when it undertakes a business combination. The fair value of consideration transferred at the acquisition date includes the fair value of assets transferred, liabilities incurred by the owners and equity instruments issued by the Family. Consideration can include cash, contingent consideration and options. Acquisition related costs are expensed as incurred unless they relate to the issue of financial instruments in which case they are accounted for in accordance with accounting policies relating to that specific type of financial instrument. The fair value of assets acquired and liabilities assumed are recognised at the acquisition date. At the acquisition date any equity interest held prior to the acquisition date is recognised at fair value with a resulting gain or loss recognised in profit or loss. The family has an option on a combination by combination basis on how to recognise non-controlling interest at the acquisition date either at fair value or proportionate share of net assets.

Goodwill is measured as the excess of the consideration transferred, plus any non-controlling interest and the fair value of any previously held interest in the acquiree over the fair value of assets acquired and liabilities assumed. If the goodwill is negative (bargain purchase) this is recognised immediately in the income statement. Any changes in contingent consideration after the measurement period are recognised in profit or loss.

The results of subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the effective date of acquisition, or up to the effective date of disposal, as appropriate. Entities which are acquired and are controlled, but which will be held for a period less than twelve months, are recorded as assets held for sale.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

#### b. Basis of consolidation (continued)

The consolidated financial statements are based on the financial statements of the individual companies drawn up using the standard Family accounting policies. Accounting policies applied by individual subsidiaries have been revised where necessary to ensure consistency with Family policies for consolidation purposes. All companies in the Family have the same reporting date of 31 March.

All significant transactions and balances between Family entities are eliminated on consolidation. The Family applies a policy of treating transactions with a non-controlling interest as transactions with equity holders when control is not lost of the subsidiary, and therefore recognised in equity.

#### c. Segment information

The Borealis Family of Companies has two reportable operating segments. The Family's mining exploration operations are conducted on properties in Canada. The only assets utilised in this business segment are the mining and other equipment. All other assets relate to the Family's other reportable operating segment, which is the business of conducting basic industrial research with the intent to commercialise these technologies. While the technical rights and/or patents are owned by a company registered in Gibraltar, the research activities are currently mainly carried out outside Gibraltar.

#### d. Foreign currency translation

The Family has determined the USD \$ as its functional currency, as this is the currency of the economic environment in which the operations of the family predominantly operates.

Transactions in currencies other than USD \$ are recorded at the rates of exchange prevailing on the dates of the transactions. At each reporting date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing on the reporting date. Non-monetary assets and liabilities carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Gains and losses arising on exchange are included in profit or loss. No Family entity has an operational currency of a hyper-inflationary economy.

Foreign currency differences arising on retranslation are recognised in profit or loss, except for differences arising on the retranslation of available-for-sale equity instruments, financial liabilities that are designated as hedges of the net investment in a foreign operation and qualifying cash flow hedges, each of which are recognised directly in equity within the translation reserve.

In the case of foreign entities the financial statements of the Family's overseas operations are translated as follows on consolidation: assets and liabilities, at exchange rates ruling on the reporting date, income and expense items at the average rate of exchange for the period and equity at exchange rates ruling on the dates of the transactions. Exchange differences arising are classified as equity and transferred to a separate translation reserve. Such translation differences are recognised in the statement of comprehensive income in the period in which the operation is disposed of. Foreign exchange gains and losses arising from monetary items receivable from or payable to a foreign operation, the settlement of which is neither planned nor likely within the foreseeable future, are considered to form part of a net investment in a foreign operation and are recognised directly in equity.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate. Foreign currency gains and losses are reported on a net basis.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

#### e. Non-controlling interests

For business combinations completed on or after 1 January 2010 the Family had the choice, on a business combination by business combination basis, to initially recognise any non-controlling interest in the acquiree at either acquisition date fair value or, as was required prior to 1 January 2010, at the non-controlling interest's proportionate share of the acquiree's net assets. The family has not elected to take the option to use fair value in acquisitions completed to date.

From 1 January 2010, the total comprehensive income of non-wholly owned subsidiaries is attributed to owners of the parent and to the non-controlling interests in proportion to their relative ownership interests. Before this date, unfunded losses in such subsidiaries were attributed entirely to the family. In accordance with the transitional requirements of IAS 27 (2008), the carrying value of non-controlling interests at the effective date of the amendment has not been restated.

## f. Property, plant and equipment

Fixtures and equipment are stated at cost less accumulated depreciation and any recognised impairment loss. The residual values and useful lives of property, plant and equipment are reviewed, and adjusted if appropriate, at the end of each reporting period. The carrying amount of an asset is written down immediately to its recoverable amount if the asset's carrying amount is assessed as greater than its estimated recoverable amount.

Depreciation is charged on other assets so as to write off the cost or valuation of assets, over their estimated useful lives, less estimated residual value, using the straight-line method on the following bases:

Mining and geological equipment	30%
Other equipment	20%

The gain or loss arising on the disposal or retirement of an asset is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in the income statement.

#### g. Intangible assets - Research and development expenditure

Research costs are expensed in the year in which they are incurred. Development costs are reviewed annually and are expensed if they do not qualify for capitalisation. Development costs that are directly attributable to the design and testing of identifiable and unique products controlled by the Family are capitalised as intangible assets only when the following criteria are met:

- (i) it is technically feasible to complete the product so that it will be available for use;
- (ii) management intends to complete the product and use or sell it;
- (iii) there is an ability to use or sell the product;
- (iv) it can be demonstrated how the product will generate probable future economic benefits;
- (v) adequate technical, financial and other resources to complete the development and to use or sell the product are available; and
- (vi) the expenditure attributable to the product during its development can be measured reliably.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# g. Intangible assets - Research and development expenditure (continued)

The depreciable amount of an intangible asset with a finite useful life, will be distributed on a systematic basis over its useful life. Capitalised development costs are amortised on a straight line basis over their twenty year useful estimated life once the asset is available for use.

Patents are accounted for on the basis of the costs of registering the worldwide rights. All costs for legal works of the products have been written off in the year incurred. These patents are amortised on the straight-line basis over their twenty year estimated useful life.

#### h. Mineral resources

Mineral resources are recognised at the cost of acquiring licences, including the costs associated with exploration and evaluation activity, and the fair value (at acquisition date) of exploration and evaluation assets acquired in a business combination. All costs are capitalised once the company has obtained the legal right to explore. Mineral resources are amortised when technical feasibility and commercial viability of the property can be demonstrated.

## i. Impairment of non-financial assets

At each reporting date, the Family 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 it is not possible to estimate the recoverable amount of an individual asset, the Family estimates the recoverable amount of the cash-generating unit to which the asset belongs.

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 revalued amount, in which case the impairment loss is treated as a revaluation decrease. Where an impairment loss subsequently reverses (except for goodwill), 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 years. A reversal of an impairment loss is recognised as income immediately, unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

#### j. Taxation

Income tax expense represents the sum of the current tax and deferred tax.

The charge for current tax is based on the result for the year adjusted for items which are non-assessable or disallowed. It is calculated using tax rates that have been enacted or substantively enacted by the reporting date.

Current and deferred tax is recognised in the income statement unless the item to which the tax relates was recognised outside the income statement being other comprehensive income or equity. The tax associated with such an item is also recognised in other comprehensive income or equity respectively.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the liability method.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# j. Taxation (continued)

Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries, associates, and interests in joint ventures, except where the Family is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amounts of deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the assets to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset realised. For land and revalued investment property deferred tax is calculated on the presumption that recovery is through sale. Deferred tax is charged or credited to profit or loss, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

A change in deferred tax assets and liabilities as a result of a change in the tax rates or laws are recognised in profit and loss or other comprehensive income to the extent that it relates to items previously recognised in other comprehensive income.

Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same taxation authority and the Family intends to settle its current tax assets and liabilities on a net basis.

# k. Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and balances with banks, and investments in money market instruments which are readily convertible, being those with original maturities of three months or less. Cash and cash equivalents are measured at fair value, based on the relevant exchange rates at the reporting date.

#### I. Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). If not, they are presented as non-current liabilities.

Trade payables are recognised initially at fair value and subsequently measured at amortised cost.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

#### m. Provisions

Provisions are recognised when the Family has a present legal or constructive obligation, as a result of past events, for which it is probable that an outflow of economic benefits will be required to settle the obligation, and a reliable estimate can be made of the obligation.

Provisions are measured at the present value of the expenditure expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation.

# n. Share-based payments

Equity instruments granted for services received

When the Family issues equity instruments for goods or services received, the fair value of the goods or services received is recognised as the cost of the goods or services received with a corresponding increase in equity. However, if the fair value of the equity instrument granted is greater than the fair value of the goods or services received the difference is recognised in other comprehensive income.

#### o. Financial instruments

Financial instruments, other than derivative financial instruments, are recognised on the Family's statement of financial position when the Family becomes a party to the contractual provisions of the instrument. Financial instruments are initially measured at fair value, which generally equates to acquisition cost, which includes transaction costs for financial instruments not subsequently measured at fair value. Subsequent to initial recognition, they are measured as set out below.

# (i) Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables comprise trade and other receivables and are recognised initially at fair value and subsequently at amortised cost. Generally, this results in their recognition at nominal value less any allowance for any doubtful debts.

# (ii) Financial assets at fair value through profit or loss ('FVTPL')

If a financial asset is held for trading, or is designated as such on initial recognition, it is classified as held at fair value through profit or loss. Assets other than held for trading are designated at fair value through profit and loss when the Family manages the holdings and makes purchase and sale decisions based on fair value assessments and documented risk management and investment strategies. Attributable transaction costs and changes in fair value are recognised in profit or loss.

The company has designated its marketable securities as FVTPL financial assets.

#### (iii) Other financial liabilities

Other financial liabilities include trade payables, related party loans and other short-term monetary liabilities, which are initially recognised at fair value and subsequently carried at amortised cost.

The Company's subsidiaries are listed in note 9 to the consolidated financial statements and are held at cost less provision for any impairment.

Notes to the Financial Statements (Continued)
Year ended 31 March 2015

# **Financial hierarchy**

Financial instruments recorded at fair value on the consolidated statements of financial position are classified using the fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Level 1: valuation based on quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2: valuation techniques based on inputs other than quoted prices included in level 1 that are observable for the asset or liability, either directly (i.e as prices) or indirectly (i.e derived from prices); and

Level 3: valuation techniques using inputs for the asset or liability that are not based on observable market data (unobservable inputs).

## p. Share capital

Ordinary shares are classified as equity. Costs directly attributable to the issue of the shares are recognised as a deduction from the proceeds.

#### q. Going concern

These financial statements have been prepared under the going concern concept that assumes that the Family of Companies will continue in operational existence for the foreseeable future having adequate funds to meet its obligations as they fall due. Further information is set out in the Directors' Report on pages 5 to 25 and within Note 3.

# r. Revenue recognition

Revenue from the sale of fuel slots is recognised when the agreements are executed.

# s. Restatement

The comparative figure for non controlling interest has been restated, due to the incorrect percentage for non controlling interest being applied in previous years. This restatement is disclosed in the consolidated statement of changes in equity. Also, the earnings per share has been restated to calculate on the operating loss.

#### 2. Adoption of new and revised International Financial Reporting Standards

#### New and amended standards adopted by the Family

The Family has adopted the following new and amended IFRSs (as endorsed by the European Union (EU)) as of 1 April 2014. There are other amendments to standards not listed in this note as they do not have a material effect on the Family.

• IAS 32 (amendment), 'Offsetting Financial Assets and Financial Liabilities'. The IAS 32 amendment clarifies the existing offsetting requirements and therefore is unlikely to have any impact on the Family. The amendment is effective for annual periods beginning on or after 1 January 2014.

In addition, a number of new standards, amendments to standards and interpretations are not yet effective for the year ended 31 March 2015, and have not been applied in preparing these consolidated financial statements. These are not expected to have an effect on the consolidated financial statements.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

#### 3. Going Concern

The continued operation of the Borealis Family of Companies is dependent on its ability to receive continued financial support from its shareholders and creditors, to obtain sufficient equity financing or generate sufficient profits in the future. The directors are confident that sufficient support will be secured and accordingly the going concern basis of preparation of the financial statements is appropriate. In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but not limited to, twelve months from the end of the reporting period.

The Company's shareholdings in its subsidiary companies, both direct and indirect, are carried at nominal value, and not at market value. Six of those companies are publicly traded in the United States over-the-counter (OTC) market and quoted on the Pink Sheets at www.pinksheets.com. However, there can be no assurance that the Company or its Subsidiaries' efforts to generate further financing, profitable operations, asset sales, or product sales will be successful. The financial statements do not contain any adjustments to the carrying values of assets and liabilities that would be necessary if the Borealis Family of Companies is unable to achieve profitable operations or secure continued financing.

#### 4. Critical accounting estimates and judgements

In preparing the financial statements, management is required to make estimates and assumptions which affect reported income, expenses, assets, liabilities and disclosure of contingent assets and liabilities. Use of available information and application of judgement are inherent in the formation of estimates, together with past experience and expectations of future events that are believed to be reasonable under the circumstances. Actual results in the future could differ from such estimates.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed as follows:

#### i) Mineral resources

The recoverability of the capitalised mineral resources are subject to significant assumptions about the future made by management at the end of the year. The recoverability is dependent upon the existence of economically recoverable reserves, securing and maintaining title and beneficial interest in mineral resources, the ability of the Family to secure continued financial support to develop its mineral resources, and upon future profitable production.

# i) Intangible Assets

The recoverability of the capitalised technology development costs are subject to significant assumptions about the future made by management at the end of the year. The recoverability is dependent upon the successful development of a commercially viable product, securing and maintaining patents in relation to these, the ability of the Family to secure continued financial support to develop, and upon future profitable production.

#### iii) Fair value of derivatives and other financial instruments

The fair value of financial instruments that are not traded in an active market (e.g. unquoted debt instrument) is determined by using valuation techniques. Family management uses its judgement to select a variety of methods, and make assumptions that are mainly based on market conditions existing at the end of each reporting period.

Notes to the Financial Statements (Continued)
Year ended 31 March 2015

#### 5. Departure from accounting standards

Management has concluded that the financial statements present fairly the entity's financial position, financial performance and cash flows and that it has complied with applicable IFRS, except that it has departed from a particular requirement to achieve a fair presentation with regard to the Consolidated Statement of Income and Comprehensive Income as prescribed by IFRS No.10.

The effect of this departure is that management has included Profit on Sale of Shares in Subsidiary Companies in the Consolidated Statement of Income and Comprehensive Income and not as an adjustment in the Consolidated Statement of Changes in Shareholders Equity as prescribed by IFRS No. 10. But for this departure, the Statement of Income and Comprehensive Income would have stopped at the loss of \$2,875,982, and all the line items there under would have been adjusted in the Consolidated Statement of Changes in Shareholders Equity.

Given that that sale of shares in subsidiary companies represents an essential function, activity and source of funds for the family of companies, it was concluded that its omission from the Statement of Income and Comprehensive Income would be misleading and inconsistent with previous reports. It is noted that this is a difference in disclosure only, and has no effect whatsoever on the Consolidated Statement of Financial Position.

Earnings per share when computed on the reported Total Comprehensive Income for the Year of \$689,148 in 2015 and \$1,008,284 in 2014 is a positive \$0.14 and \$0.20 respectively.

# 6. Operating loss

Operating loss is stated after charging	2015 \$	2014 \$
Depreciation Amortisation Family audit fees	3,398 64,002 102,505	4,546 58,152 146,421
Analysis of expenditure		
Development expenses Administration expenses Amortisation Expense Consulting fees Corporate fees Depreciation Directors fees Foreign exchange (gain)/loss Interest Professional fees Rent and utilities Shareholder expenses Telephone, internet and postage Travel and entertainment Insurance Audit fees Bank charges	1,311,861 161,194 64,002 280,068 42,019 3,398 487,300 (6,158) 8,811 234,840 142,583 36,437 33,799 148,340 105,448 102,505 4,821	1,200,213 179,708 58,152 272,353 52,987 4,546 514,300 11,994 5,902 282,808 140,405 49,397 43,095 119,544 130,570 146,421 10,045

Notes to the Financial Statements (Continued) Year ended 31 March 2015

#### 7. Directors' emoluments

The total amount of emoluments credited to directors, who are also the key management personnel, during the period was \$1,644,100 (2014: \$1,676,100).

The emoluments relate to directors fees of \$487,300, accounting fee of \$72,000 and development expenditure of \$1,084,800, of this \$284,400 has been capitalised as development expenditure.

In addition, amounts totalling approximately \$91,200 (2014: \$181,200) has been charged to the Family of Companies by certain directors, for the provision of office space.

# 8. Employee information

The Company employed two clerical staff members during the current period. All other services to the Company are provided by way of consultancy agreements.

#### 9. Taxation

The Gibraltar Tax Act (2010) which requires companies with businesses managed and controlled in Gibraltar, to pay 10% Gibraltar Corporation Tax on profits. No provision has however been made for this tax, nor for deferred tax, as no taxable revenue was earned by the Family.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 10. Investments in subsidiaries undertakings

The Company has the following principal ownership interests and invested amounts in its subsidiaries, all of which (other than Borealis Exploration Incorporated, which is registered in Oregon, USA) are registered in Gibraltar:

Directly held by the Company	Ownersh 2015 %	nip Interest 2014 %	2015	Investments 2014 \$
Borealis Technical Limited Borealis Exploration Incorporated Credits Holdings Limited Faraway Public Limited Company Roche Bay Holdings Limited	98% 100% 100% 82% 100%	98% 100% 100% 82% 100%	158 100 160 83,372 160	158 100 160 83,372 160
Total investments			83,950	83,950
Indirectly held by the Company			<i>Owner</i> 2015 %	ship Interest 2014 %
Avto Metals Public Limited Company Chorus Motors Public Limited Company Cool Chips Public Limited Company Photon Power Public Limited Company Power Chips Public Limited Company Roche Bay Public Limited Company Borealis Roche Bay Limited Wheeltug Public Limited Company Cool Chips Military Sales Public Limited Compa Asamera Limited Roche Bay East Limited Fraser Bay Public Limited Company Wheeltug Sales Limited	ny		96.71% 77.96% 63.30% 99.59% 65.00% 70.83% 100.00% 64.21% 65.00% 70.83% 70.83% 64.21%	96.81% 77.94% 63.30% 99.59% 64.97% 70.83% 100.00% 64.55% 63.30% 64.97% 70.83% 70.83% 64.55%

WheelTug plc is 82.37% owned by Chorus Motors plc, which is 77.96% owned by Borealis Technical Limited. Cool Chips Military Sales plc is owned 100% by Cool Chips plc which is 63.30% owned by Borealis Technical Limited. Roche Bay East Ltd is 100% owned by Roche Bay plc, which is 70.83% owned by Borealis Technical Limited. Asamera Ltd is 100% owned by Power Chips plc which is 65% owned by Borealis Technical Limited.

Of the above companies, shares of Avto Metals plc, Cool Chips plc, Chorus Motors plc, Faraway plc, Power Chips plc and Roche Bay plc are publicly traded in the United States overthe-counter (OTC) market and quoted on the Pink Sheets at www.pinksheets.com. Fraser Bay Public Limited Company is a dormant company which was delisted during the year.

The investment in quoted subsidiary undertakings has been valued at historical cost taking no account of unrealised gains based on market value.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

#### 10. Investments in subsidiaries undertakings (continued)

At the end of the year as part of the impairment review the Directors decided to write the cost of some of the investment in subsidiaries held by Borealis Technical to the par value. The total amount of impairment loss recorded in the profit and loss is \$710,227.

	_		14 Impairment	
	\$	\$		
Cool Chips plc	78,350	339,318	260,968	
Photon Power plc	52,027	54,690	2,663	
Power Chips plc	78,338	218,748	140,410	
Roche Bay plc	52,230	358,416	306,186	
	260,945	971,172	710,227	

The Family of Companies has in the past 10 years principally funded itself with the proceeds of the sale of shares in its subsidiaries, which has resulted in the dilution of the Company's holdings in these subsidiaries though the transactions were anti-dilutative in absolute terms. The issue of these shares is either for a cash consideration or payment for goods and services received by agreement with the creditor.

Equity attributable to non-controlling interest of \$9,177,847 (2014 Restated - \$10,048,197) is presented on the statement of financial position at March 31, 2015. The increase of \$830,350 is due to a higher percentage of the net assets of the subsidiaries being attributable to outside shareholders as a result of the increase in non-controlling interests. The equity of the Borealis Family of Companies in the share premiums paid by third parties during the year of \$695,186 (2014 - \$50,040) is shown in the statement of comprehensive income.

The profit on the disposal of shares in subsidiary companies of \$2,869,944 (2014: \$4,903,610) arises from disposal of Wheeltug plc shares by direct parent company, Chorus Motors plc. Wheeltug plc shares are sold over-the-counter (OTC) for cash proceeds and they are transferred in exchange for consulting and other professional services provided to and received by the Family (Note 20). The total number of shares disposed of during the year was 30,624 (2014: 52,935), this resulted in profits recognised of \$2,869,944 (2014: \$4,903,610). In addition in 2014 only, Borealis Technical Limited disposed of shares resulting in profits of \$71,218.

# 11. Earnings per share

The Group presents basic earnings per share information for its ordinary shares. Basic earnings per share is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the reporting period.

Basic EPS	Earnings \$	Weighted Average Number of Shares	Per share amount \$
Profit attributable to ordinary shareholders 2015	(2,875,982)	5,000,000	(0.58)
Profit attributable to ordinary shareholders restated 2014	(4,432,894)	5,000,000	(0.89)

# Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 12. Intangible assets

Fami	ly &	Company	
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Family & Company	Patents	Development costs	Total
	\$	\$	\$
Cost At 1 April 2014 Additions	1,163,043 116,999	10,502,935 1,131,928	11,665,978 1,248,927
At 31 March 2015	1,280,042	11,634,863	12,914,905
<b>Depreciation</b> At 1 April 2014 Amortisation for the year	404,752 64,002	-	404,752 64,002
At 31 March 2015	468,754	-	468,754
Net book value 31 March 2015	811,288	11,634,863	12,446,151
31 March 2014	758,291	10,502,935	11,261,226
Family & Company			
	Patents	Development costs	Total
	\$	\$	\$
Cost At 1 April 2013 Additions	1,052,375 110,668	8,650,390 1,852,545	9,702,765 1,963,213
At 31 March 2014	1,163,043	10,502,935	11,665,978
<b>Depreciation</b> At 1 April 2013 Amortisation for the year	346,600 58,152	- -	346,600 58,152
At 31 March 2013	404,752	-	404,752
Net book value 31 March 2014	758,291	10,502,935	11,261,226

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 12. Intangible assets (Continued)

Development costs relate solely to the continued development of Wheeltug product. This product is described in detail in the directors' report. The development costs have been capitalised since 2012, after a successful demonstration of an operating prototype. The Borealis Family have funded the continued development of the product through the sale of shares in the company and also agreements with risk-sharing partners who are responsible for the funding and development of components. There are already a number of letters of intent signed by airlines to lease the systems when Wheeltug development is complete thus demonstrating the ability to generate future economic benefits.

# 13. Property, plant and equipment

Family & Company	Mining, drilling and camp \$	Moveable non-current assets \$	Total \$
Cost At 1 April 2014	655,808	143,042	798,850
Additions	-	-	-
Disposals	(655,808)	-	(655,808)
At 31 March 2015	-	143,042	143,042
Depreciation			
At 1 April 2014 Charge for the year	655,808 -	126,858 3,398	782,666 3,398
Disposals	(655,808)	<del>-</del>	(655,808)
At 31 March 2015	-	130,256	130,256
Net book value			
31 March 2015	-	12,786	12,786
31 March 2014	-	16,184	16,184

The disposal of fixed assets represent effective disposals excluding assets with expired useful lives. This adjustment is a result of a review of the assets undertaken by management during the year and relects a significant number of years of expired assets. The exclusion of these assets has no financial impact on the financial statements.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 13. Property, plant and equipment (Continued)

Family & Company	Mining, drilling and camp \$	Moveable non-current assets \$	Total \$
Cost	GEE 000	142 042	700 050
At 1 April 2013 Additions	655,808	143,042	798,850
At 31 March 2014	655,808	143,042	798,850
Depreciation			
At 1 April 2013	655,808	122,312	778,120
Charge for the year		4,546	4,546
At 31 March 2014	655,808	126,858	782,666
Net book value 31 March 2014	-	16,184	16,184

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 14. Mineral resources

Roche Bay plc Government of Canada	2015 \$	2014 \$
21 Year renewal mining leases Acquisition costs Development costs Lease payments Recovery Impairment of resource	2,375,434 89,890 98,822 (774,597) 1,789,549 (1,789,548)	2,375,434 89,890 89,586 (774,597) 1,780,313
	1	1,780,313
Faraway plc Government of Canada		
21 Year renewal mining leases Lease payments	153,326 68,101 221,427	153,326 59,897 213,222
Impairment of resource	(221,426)	-
Total Government of Canada	1	213,222
21 Year renewal mining leases	\$ 2	\$ 1,993,535

# Roche Bay plc

Included in Mining resources is Roche Bay plc's ownership of Fraser Bay 1-5. The Roche Bay Magnetite Project is no longer being held on our books as mining resources. The valuation of \$1,780,313 is based on historical value at the transfer from Borealis to Roche Bay plc. This value is annually adjusted by development costs, lease payments, and recoveries from third party ventures.

# Eastern project

Roche Bay plc has entered into an Option and Farm-Out Agreement ("Option Agreement") and various amending agreements with Advanced Explorations Inc. ("AXI"), under which AXI has the right to acquire a 100% interest in Roche Bay's Magnetite Project on the Eastern Melville Peninsula, Nunavut Territory (the "Eastern Project"). Under the Option Agreement and the various amendments, AXI has attained a 75% interest in the property and the Roche Bay retains 25%.

The agreement entered into on March 23, 2009 amended the terms of the original Option Agreement containing certain provisions with respect to royalties (the "Royalty Payments") should AXI not exercise its buy-out options.

Notes to the Financial Statements (Continued)
Year ended 31 March 2015

#### 14. Mineral resources (continued)

#### Eastern project (continued)

On December 15, 2013 Roche Bay entered into an Amending Agreement ("Amending Agreement") which amends the Royalty Agreements. Under the Amending Agreement, Roche Bay agreed to accept the following consideration in satisfaction of the cash payment of the \$1,000,000 that was due on December 15, 2013:

- (a) \$50,000 cash payment on December 31, 2013 (received)
- (b) \$100,000 cash payment on January 31, 2014 (received)
- (c) \$50,000 cash payment on or before March 15, 2014 (received)
- (d) \$50,000 cash payment on or before June 15, 2014
- (e) \$50,000 cash payment on or before September 15, 2014
- (f) 5,500,000 common shares of AXI on TSX approval of the amending agreement (received see note 15)
- (g) On September 15, 2014, AXI share issue Roche Bay common share with a value of \$350,000 at a price per share equal to the volume weighted average price for the 30 days period prior to the date of issuance, subject to a minimum of \$0.05 per common share.

The Amending Agreement further provides that until December 15, 2020 AXI shall have the right to exercise a royalty repurchase option to reduce the royalty rates under the Royalty Agreement, as follows:

- 1. In respect of the royalty on any mineral product such as iron concentrate and iron ore pellets being under 90% iron by weight, AXI shall have the option to reduce the royalty down to as low as 2% upon payment of \$12,000,000 for every 1% of the royalty; and
- 2. In respect of the royalty on any mineral product such as iron concentrate and iron nuggets being over 90% iron by weight, AXI shall have the option to reduce the royalty down to as low as 2% upon payment of \$12,000,000 for every 0.5% of the royalty.
- 3. In respect of special metals, a royaly of 10% is still applicable.

The Amending Agreement further provides that AXI may earn a 100% interest in the Eastern Property, until December 15, 2015, by making a one-time payment of \$9,000,000 to Roche Bay.

As a result of the previously received payments and consideration, the carrying value of the Eastern Project is \$nil (2013 - \$nil). Therefore, any additional payments and consideration received are recognised in other income on the consolidated statement of loss and comprehensive loss.

AXI have been in breach of this agreement since June 2014. The recoverability of amounts due under this agreement is now considered unlikely, and therefore amounts due from June 2014 have not been accounted for. For further details please refer to note 24.

#### Western project

On May 4, 2011 Roche Bay entered into an Option Agreement with principals of the Discovery Group, a Canadian mining development group, through West Melville Mining Company Ltd ("WMM"), for the development of lease number 2826 (the "WMM Option Agreement"). According to the terms of the WMM Option Agreement, WMM can earn up to a 70% interest in the lease through the exercise of successive options subject to fulfilling certain drilling and development milestones.

Notes to the Financial Statements (Continued)
Year ended 31 March 2015

#### 14. Mineral resources (continued)

#### Western project (continued)

The requirements to render the first option exercisable were not achieved by WMM within the contracted deadline of 10 months from the date of the agreement, or approximately March 4, 2012, and consequently Roche Bay entered into an amendment dated December 29, 2011 that extended this deadline to 13 months, or approximately June 4, 2012.

On May 31, 2012 Roche Bay agreed to another amendment extending the deadline of the first option to September 30, 2012 and the second option to December 31, 2015. As well, the amendment modified the terms of the consideration to be received. On October 3, 2012 Roche Bay agreed to extend the amendment to October 31, 2012 in exchange for \$75,000 CDN in cash and the share payment due on the first option was reduced by 150,000 common shares.

On October 31, 2012 WMM issued to Roche Bay 1,563,374 common shares as part of the first option, which was 5% of WMM's issued and outstanding common shares less 150,000 common shares. To complete the first option and acquire a 30% interest in the lease, as of March 31, 2013, WMM was required to issue another 5% of their issued and outstanding common shares to Roche Bay and incur an aggregate of \$2,500,000 in exploration expenditures on or before September 30, 2013. The required aggregate exploration expenditures was met by WMM.

On May 10, 2013, Roche Bay and WMM have agreed to another amendment to the WMM Option Agreement to extend the dates by which the first and second options must be exercised from September 30, 2013 to December 1, 2014 for the first option and from December 31, 2015 to April 15, 2017 for the second option. For consideration of the extensions, WMM issued 200,000 common shares to Roche Bay (Note 15). The fair value of the WMM shares received were included as a recovery in the mineral property in 2014.

On 28 November 2014, WMM advised that due to the very difficult market conditions and the collapse of iron ore prices, they were terminating their option on the project with effect from 1 December 2014. As a result WMM's withdrawal, the tough market conditions and the collapse of iron ore prices, management have decided that the mining property should be impaired. The impairment loss of \$1,789,548 is recorded in the profit and loss account.

#### Faraway plc

The investment in the Mining Properties, located near Freuchen Bay, Melville Peninsula, Nunavut, Canada, related to leases granted by the Government of Canada for the exploitation of these sites with regard to their mineral reserves. To date, costs for the maintenance of these leases, along with costs in preliminary studies of the properties have been capitalised. The intention was once a mineral resource has been established on the properties, begin the necessary and time consuming task to start the work to place the property into production.

However, as described above there were several indicators of impairment of mining properties during the year and therefore management decided to impair the mining property in Faraway plc. The impairment loss of \$221,426 is recorded in the profit and loss.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 15. Financial assets at fair value through the profit or loss

Family Assets carried at fair value through profit or loss:	2015 \$	2014 \$
Common Shares Advanced Explorations Inc. (AXI) Common Shares West Melville Metals Inc. (WMM)	6,404 84,113	331,667 74,469
	\$ 90,517	\$ 406,136

During the year ended March 31, 2014 Roche Bay received 5,500,000 AXI common shares under the terms of its agreements with AXI (note 14). The number of AXI shares held at March 31, 2015 was 3,033,000 (2014: 6,058,500). Subsequent to the year end, AXI received a "stop trade" order from their exchange, the Toronto Stock Exchange. Roche Bay plc sold 406,000 shares after year end for \$6,404 before the "stop trade" was implemented. The balance of 2,627,000 unsold shares have been written off in the current year as it is unlikely any amounts will be recovered from these shares.

During the year ended March 31, 2014 Roche Bay received 200,000 WMM common shares under the terms of its agreements with WMM (note 14). Under the terms of the original Option Agreement dated May 6, 2011, Roche Bay received 1,743,374 WMM common shares (note 14). The number of WMM shares held at March 31, 2015 was 1,063,374 (2014: 1,896,724).

These financial assets are classified within level 1 of the fair value hierarchy.

# Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 16. Other receivables

Family	2015 \$	2014 \$
Advances to suppliers and consultants	26,303	367,351
	\$ 26,303	\$ 367,351
	2015	2014
Company	\$	\$
Advances to suppliers and consultants	26,303	367,351
Amounts due from family undertakings	1,900,225	1,717,575
	\$ 1,926,528	\$ 2,084,926

Amounts due to family undertakings are unsecured, interest free and repayable on demand.

Included in other receivable balances at the year end were \$nil (2014: \$272,675) of shares taken in advance of services being provided by two of the directors. These balances have since been cleared and this has not recurred.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 17. Trade and other payables

Family	2015 \$	2014		
Trade and other payables	5,176,970	6,063,970		
	\$ 5,176,970	\$ 6,063,970		

Amounts due to Family undertakings are unsecured, interest free and repayable on demand. Of the amount included under trade creditors, there are outstanding trade balances with directors and related parties of \$2,779,721 (2014: \$1,741,518).

Company	2015 \$	2014 \$		
Trade creditors	3,896,323	5,060,483		
Amounts due to Family undertakings	27,594,275	28,381,760		
	\$ 31,490,598	\$ 33,442,243		

Amounts due to company undertakings are unsecured, interest free and repayable on demand. Of the amount included under trade creditors, there are outstanding trade balances with directors and related parties of \$1,597,687 (2014: \$405,973).

During the year, the company reversed an amount payable of \$1,874,675 following a review of the trade creditors and having obtained legal advice that this no longer represents amounts payable.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 18. Non current liabilities

Family & company	2015 \$	2014 \$
Other payables	1,431,200	2,720,169
	\$ 1,431,200	\$ 2,720,169

Non current payables represent loans made to the Company by certain directors with regards to helping to finance the operations of the Company in previous years. In order to be in a position to make these loans the directors sold on the market (net of returns to date) 201,294 shares (2014: 201,494) of Borealis Exploration Limited. The Directors have agreed not be seek repayment on these for the next 12 months and thereafter only when the Family is in a position to do so. The amount repayable will be sufficient funds to allow the directors to re-purchase the shares on the open market. The amount due to directors are revalued at each year-end and the gain/loss on the revaluation is included in other comprehensive income.

These financial liabilities are classified within level 2 of the fair value hierarchy.

# 19. Called up share capital

Authorised share capital	2015 \$	2014 \$
5,000,000 ordinary shares @ \$0.01 each	\$ 50,000	\$ 50,000
Called up share capital 5,000,000 ordinary shares @ \$0.01 each	\$ 50,000	\$ 50,000

All shares are equally eligible to receive dividends and the repayment of capital. Each share represents one vote at shareholders' meeting of the company.

Notes to the Financial Statements (Continued)
Year ended 31 March 2014

#### 20. Share based payments

The Family exchanged Wheeltug plc shares for consulting and other professional services provided to and received by the Family. The fair value of shares sold in such circumstances is determined by reference to the current market value that the Wheeltug plc shares are being sold for cash. The fair value of the services remunerated in shares is cost price.

During the year, 21,788 shares were exchanged for \$1,522,730 (2014: \$2,605,493), representing the cost of services provided to and received by the Family. A gain is recognised on the exchange of these shares, as they are held at cost. The resulting gain is combined with the gain on the sale of shares and recorded in the Consolidated Statement of Comprehensive Income under "gain on disposal of shares in subsidiary companies." Please refer to note 5.

## 21. Management of capital

The Family considers its capital structure to consist of shareholders' equity. The Family's objective in managing capital is to maintain adequate levels of funding to support organisational functions and obtain sufficient funding to the identification and development of mining and technology development programmes. The Board of Directors does not establish quantitative return on capital criteria for management, but rather relies on the expertise of the Company's management to sustain future development of the business.

The technology development programmes are various stages of development and the mining properties the Family currently has interest in are in the exploration stage; as such the Family is dependent on external financing to fund its activities. In order to continue with development and carry out the planned exploration and pay for administrative costs, the Family will spend its existing working capital and raise additional amounts as needed.

Management reviews its capital management approach on an ongoing basis and believes that this approach, given the relative size of the Family, is reasonable. There has been no changes in the Family's approach to capital management during the past few years.

# Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 21 Management of capital (continued)

The principal financial instruments used by the Family, from which financial instrument risk arises, are as follows:

- Financial assets at fair value through profit and loss
- · Trade and other receivables
- · Cash and cash equivalents
- Trade and other payables
- Other financial liabilities

A summary of the financial instruments held by category is provided by	oelo	w:	
Financial assets		2015 \$	2014 \$
Trade and other receivables Financial assets at fair value through profit and loss Cash and cash equivalents		26,303 90,517 75,574	367,351 406,136 93,722
	\$	192,394	\$ 867,209
Financial liabilities			
Trade and other payables Other financial liabilities		5,176,970 1,431,200	6,063,970 2,720,169
	\$	6,608,170	\$ 8,784,139

Notes to the Financial Statements (Continued)
Year ended 31 March 2015

## 22. Financial risk analysis

The Family has exposure to the following risks from its use of financial instruments:

- Liquidity risk
- · Foreign currency risk
- Credit risk
- · Market risk
- · Price risk

This note presents information about the Family's exposure to each of the above risks, the Family's objectives, policies and processes for measuring and managing risk, and the Family's management of capital. Further quantitative disclosures are included throughout these consolidated financial statements.

The board of directors has overall responsibility for the establishment and oversight of the Family's risk management framework. The Family's risk management policies are established to identify and analyse the risks faced by the Family to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market condition and the Family's activities. The Family through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group's financial instruments consist mainly of deposits with banks, short term investments, accounts receivable and payable and loans from directors.

# a) Liquidity risk

Liquidity risk is the risk that the Family will not be able to meet its financial obligations as they fall due. The Family's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions.

The Family manages liquidity risk by monitoring forecast cash flows and ensuring that adequate unutilised borrowing facilities are maintained.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

## 22. Financial risk analysis (continued)

The Family has not made any significant guarantees of third party or related party actual or potential obligations. The following are the undiscounted contractual maturities of financial liabilities, including estimated interest payments and excluding the impact of netting agreements:

2015	Carrying amount	Up to three months	One to two years
Trade and other payable	5,176,970	5,176,970	
Other financial liabilities	1,431,200		1,431,200
	6,608,170	5,176,970	1,431,200
2014 Trade and other payable Other financial liabilities	6,063,970 2,720,169	6,063,970	2,720,169
	8,784,139	6,063,970	2,720,169

# b) Foreign currency risk

The Family does not have any material loans designated in foreign currencies that are covered under forward exchange contracts.

The Family's policy is to cover forward all trade commitments. Each subsidiary manages its own trade exposure by reference to its functional currency.

The Family's financial risk arising from exchange rate fluctuations is mainly attributed to the fact that some receipts are received in other currencies such as Euro (EUR) and Canadian Dollar (USD) and Sterling (GBP).

The Family continually monitors the foreign currency risk and takes steps, where practical, to ensure that the net exposure is kept to an acceptable level.

The Family's significant exposures to foreign currency risk at the reporting date stated at currency amounts were as follows:

	2015	2014
	\$	\$
Cash and cash receivables		
Canadian Dollar (CAD)	5,935	46,059
Euro (EUR)	1,439	5,209
Sterling (GBP)	1,005	973
Czech Koruna (CZK)	150	940
	8,529	53,181

A 1% change in the exchange rates of the USD with the currencies stated above would result in a foreign exchange gain or loss of approximately \$85 based on the cash balances held in foreign currencies as stated above, at March 31, 2015.

Notes to the Financial Statements (Continued)
Year ended 31 March 2015

#### 22. Financial risk analysis (continued)

#### c) Credit risk

Credit risk is the risk of financial loss to the Family if a customer or counterparty to a financial instrument fails to meet its contractual obligations.

The carrying amount of financial instruments represents the maximum credit exposure. The Family's maximum exposure to credit risk at the reporting date was:

	2015 \$	2014		
Trade and other receivables Cash and cash equivalents	26,303 75,574		367,351 93,722	
	\$ 101,877	\$	461,073	

#### Trade and other receivables

The Family's exposure to credit risk is influenced mainly by the individual characteristics of each client. The demographics of the Family's client base, including the default risk of the country in which the clients operate, has less of an influence on credit risk. There is no one client to which a significant percentage of the Family's revenue can be attributed.

# Cash and cash equivalents

The majority of the Family's cash is held with major financial institutions in USA, Canada and Czech Republic. Management believes the exposure to credit risk with such institutions is not significant. Those financial assets that potentially subject the Family to credit risk are the cash held in trust by securities brokers by Roche Bay. The Family considers the risk of material loss to be significantly mitigated due to the financial strength of the major financial institutions where the cash is held and the securities brokers they use.

The Family has no significant concentration of credit risk, with exposure spread over a large number of counterparties and customers. It is Family policy to deposit short term cash investments with major institutions.

## d) Price risk

The Family is exposed to equity securities price risk in respect of investments held by the group and classified in the consolidated statement of financial position at fair value through profit or loss. The potential impact is not material to the affairs of the Family.

Commodity price risk is defined as the potential adverse impact on earnings and economic value due to commodity price movements and volatilities. As the Family is not producing the commodity price risk is remote.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

#### 23. Related party transactions and balances

Company	2015	2014
Directors	\$	\$
Fees credited during the year	\$ 1,237,000	\$ 1,120,200
Balance at year end	\$ 1,000,479	\$ 91,284

Amounts due to Directors are included in the trade and other payables. These balances are non-interest bearing with no fixed terms of repayment.

Family	2015	2014
Directors	\$	\$
Fees credited during the year	\$ 1,644,100	\$ 1,676,100
Balance at year end	\$ 2,510,806	\$ 1,374,040

Amounts due to Directors are included in the trade and other payables. These balances are non-interest bearing with no fixed terms of repayment.

The Parmenides Group received fees of \$493,200 (2014: \$432,000) for management services per annum, including compensation to key members of the executive team, as well as general office services. This amount is included in the directors details above.

The Parmenides Group is owned by Shiloh Limited International, Inc., ("Shiloh"), of which three of its Directors, Rodney T. Cox, Isaiah W. Cox and Wayne S. Marshall, are also directors of the Company. Shiloh is owned by The Jeremiah Toyam Cox Foundation Limited, ('Foundation'), whose Council Members include Rodney T. Cox, Isaiah W. Cox and Nechama J. Cox, who are also directors of the Company. The Council Members have no direct or indirect beneficial interest in the Foundation.

Iris Cox, wife of Benjamin Cox (director of Roche Bay plc) provided legal services to Roche Bay PLC and received fees of \$18,000 (2014: \$18,000). The balance due to Mrs Cox at 31 March 2015 is \$46,000 (2013: \$30,000) included in trade and other payables related to these services.

Notes to the Financial Statements (Continued) Year ended 31 March 2015

# 23. Related party transactions and balances (continued)

Oren Inc. a company controlled by Benjamin Cox (director of Roche Bay plc) provided administrative services to Roche Bay PLC for a fee of \$60,000 (2014: \$60,000). There was a \$30,000 balance (2014: nil) owing to Oren Inc. included in trade and other payables at the year end.

Joseph Cox, the son of Rodney Cox provides consultancy services in relation to the WheelTug project for a fee of \$120,000 (2014: \$155,311) during the year. Included in trade and other payables is \$96,965 (2014: \$64,514) owing to him at the year end.

Chana Cox, wife of Rodney Cox (director of Borealis Exploration Ltd and some of the subsidiaries) provides administrative services to Borealis Exploration Limited and received fees of \$40,800 (2014 - \$nil). The balance due to Mrs Cox at 31 March 2015 is \$1,064 (2014: nil).

# 24. Events after the end of the reporting period

On 9 July 2015, all the members of the Roche Bay plc Board of Directors tendered their resignation with immediate effect. The Company appointed Rodney T Cox, Wayne S Marshall and Isaiah W Cox as the new Board of Directors.

On 10 July 2015, the joint venture partner of Roche Bay plc, AXI, filed Notice of Intention to Make a Proposal ("Notice of Intention") under the provisions of Part III of the *Bankruptcy and Insolvency Act* (Canada) (the "BIA").