
Borealis Exploration Limited

2003 Annual Report



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Management's Review of Progress

30 May 2003

To Members of Borealis and Friends of the Borealis Family:

Borealis imagines, invents, develops, and licenses new industrial technologies. These include 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. These technologies will fundamentally change basic industries and introduce the Borealis Industrial Revolution. We anticipate that some of these technologies will enable entirely new industries and open new fields for scientific exploration and commercial development for many decades to come.

Fiscal 2003 was, we believe, our last year as a development-stage company. Shortly after our fiscal year-end, we completed basic development of our Chorus® Motor and will begin demonstrating it at motor industry trade shows in June. Development is nearing completion on our other primary technologies, Cool Chips™ and Power Chips™. We expect that these technologies soon will be finished and ready for licensing to manufacturers and end-users or for direct sales to customers. As a result, we expect in fiscal 2004 to report significant earnings per share.

Before reviewing where we now stand with each of these technologies, a brief explanation of our overall objectives and strategy.

Research and Development Strategy

Our objective is to earn exceptional profits from the fruits of our scientific research. Our method is to undertake high-risk scientific research and technology development projects in a risk-averse and frugal way. Often, these involve fundamental scientific research efforts whose apparent risk is so great that no one else—not even governments—will dare to undertake them. But by using a well-known but little-used analytical methodology for evaluating projects perceived to be risky, we concluded that our projects promised future returns vastly greater than their risks.

Borealis management constantly evaluates proposed research projects and possible new technologies and products. We compare these proposals on the basis of their present discounted expected value—that is, the total of their potential expected returns over many years, discounted back to give us the project's present value. We seek to invest our time, scientific efforts, and our financial resources only in those projects that are most likely to produce the highest present discounted expected values. (The FAQ page on our Website has an explanation of how this analysis works.)

Much of the scientific research being conducted today, in all fields, is government-funded or government-sponsored, which means the government can freely use the resulting technologies. We have received no corporate or government funding for our research; all Borealis research is privately funded by our shareholders and conducted by our own scientists in our own facilities. Our projects are selected and funded not on the basis of what any government thinks has value to the government, but on the basis of what the research is worth today, in terms of its present discounted expected value, to Borealis. The consequence is that Borealis' shareholders own the resulting technologies.

Most research and development efforts conducted in companies today are applied R&D, using known science and technology to develop new products or improve existing products. Incremental improvements produce incremental returns. By contrast, Borealis has been seeking an entirely new understanding of basic sciences such as electric motors and quantum electron thermotunneling. Working from the underlying (and well-established) physics and engineering, our researchers have managed to take an entirely new look at old, well-understood processes. Armed with this new perspective, we seek to develop new technologies and products based on our discoveries and inventions. Because these technologies and products are based on our own scientific discoveries and are all protected by broad patents, as well as by extensive proprietary know-how, they create opportunities to earn extraordinary returns—while also providing great benefits to the world.

For example, for nearly a century it has been universally believed among motor scientists that motors using more than three electrical phases have no real value, and for decades this belief had not been challenged. But in seeking to invent a better motor, we revisited the basic physics of electric motors. We discovered that, by designing a motor that uses more than three phases, we can harness the otherwise-damaging electromagnetic harmonics that degrade the performance of conventional motors. By co-opting the harmonic waves into a harmonic “chorus” that increases, rather than counteracts, the fundamental torque of the motor, we have been able to design a more powerful, more effective motor. The AC induction Chorus® Motor with Meshcon™ produces more than a 500% improvement in startup torque, greater torque throughout the speed curve, and increased efficiency. And because it costs much less to build, the Chorus Meshcon Motor will allow proprietary profit margins for Chorus licensees.

Similarly, we were attracted to the concept of an ideal thermal-electrical converter, which could be used to generate power directly from waste heat, or to efficiently cool. Since 1883, when the thermoelectric effect was first noticed by Edison, scientists have been trying to make it work efficiently. Research efforts since 1956 have focused on a search for the perfect thermoelectric material – something that moves heat only in one direction. Over a billion dollars have been spent in research efforts trying to discover this perfect material. But our researchers did not spend years in the thermoelectric field, so they did not know that the hunt starts and ends with materials. Instead, our researchers started with the opposite notion – that the perfect material is in fact no material at all; that a vacuum would allow electricity to flow, but would block heat from flowing in the wrong direction. By restating the problem as one of physics and not materials science, our researchers were able to find a solution that is elegant, simple, and potentially inexpensive enough to dominate such mass markets as refrigeration and air conditioning.

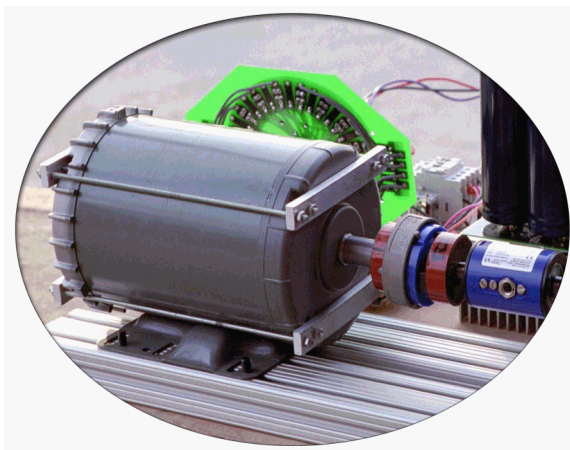
This progression from basic scientific inquiry to a finished product is lengthy and often frustrating. We have been at this for over a decade. To go from a basic scientific theory or discovery, to imagining, building, and then marketing products, has been a long and difficult path, and we have discarded a sizable number of technologies that did not measure up. With Chorus Motors, Cool Chips, and Power Chips, we now have a good grasp of the science underlying each technology, we are working on building production prototype products, carefully protected by both issued and pending patents, and we hope soon to be earning substantial profits, from either licensing or direct manufacturing and sales.

Our strategy is not to manufacture and market products enabled by these technologies ourselves—the applications and markets are so diverse that no single company could hope to understand or address them all—but rather to license each technology exclusively to existing manufacturers in each field and to end-users in defined markets. Each licensee will have exclusive rights to its technology in its markets, and thus will have the opportunity to clearly distinguish its products in the market and to earn proprietary profits from our technologies. We also plan, however, to make direct sales to customers in a few high-value, low-volume markets where it is both more practical and more profitable for our subsidiaries to be both manufacturer and vendor.

Our three principal technologies are:

Chorus Motor

The Chorus Motor has been developed and is being licensed by our majority-owned subsidiary, Chorus Motors plc. It is available today for licensing to motor manufacturers in exclusive markets (or, for evaluation purposes and certain specialized applications, direct purchase). Each application requires a slightly different motor but the generic production packaging is now completed. The Chorus Motor is a significantly improved electric motor that provides considerably more torque and higher efficiencies than existing three-phase electric drives.



Chorus Meshcon demonstration unit mounted for testing.

By harnessing the electromagnetic harmonics that are present in any AC induction motor, we have been able to develop a motor that looks just like a conventional AC induction motor, but performs much better. And we have taken the basic Chorus concept, which has been operating in our labs for several years, to the next step. In certain applications, high torques are required at startup – for example when a car starts its engine, or when a loaded conveyor belt needs to begin running.

An advanced version of Chorus, called "Chorus Meshcon," enables a drive to produce maximum torque even at slow startup speeds. The result is that a *much* smaller drive can be used for the same load, greatly reducing both manufacturing and operating costs. Chorus Meshcon provides great benefits at all drive sizes, from less than one horsepower up to megawatt systems, with a variety of competitive advantages that depend on the specific size and application. The Chorus Meshcon motor/drive system can replace a 500-horsepower motor with a 100-hp motor in high-power startup applications using 100-hp electronics.

Soon after the end of the fiscal year, we completed a 17-phase, 1.5-horsepower demonstration Chorus Meshcon motor/drive combination, for example, that operates at low speed with less than one third of the slot current required by its conventional three-phase cousin. At first approximation, the torque of a motor is computed as the square of the slot current. This means, in layman's terms, that this motor is capable of producing far more torque than a conventional three-phase motor. In applications where swift starts or high overloads are important—for example, driving automobiles, trucks, trains, or traction loads—Chorus Meshcon performs much better, at significant cost savings.

In the opinion of our technical staff, the Chorus Motor Technology will change drive technology forever. Borealis is changing a commodity business into a proprietary business where our patented technology is expected to lead to proprietary profit margins for our licensees. The Chorus Motor is an ideal source of motive power for traction applications, including elevators, hoists, conveyors, locomotives, ships and automobiles. We expect the Chorus Motor to become the drive of choice for most such applications. Because of cost and performance advantages, the Chorus Motor will help make hybrid-electric cars economically competitive.

The worldwide market for electric motors exceeds \$200 billion a year, but because there has been little change or innovation in motors for decades, this has become a commodity-like, low-margin business. Indeed, some large corporations in both the United States and Europe are seeking to sell their motor-manufacturing operations, believing there is little prospect of earning reasonable returns in this business. But our Chorus technology will make electric motors and drives a sharply differentiated business and enable our licensees to earn proprietary, high-margin profits.

We anticipate that Chorus Motors plc will eventually become a large and highly profitable business as acceptance of its superior technology increases over time. Gaining that acceptance may require some years, however. Motor engineers do not believe that a radically-improved motor is possible, and motor companies do not believe that improved margins are possible, so we expect we will have to demonstrate both Chorus' superiority in multiple applications and its lower costs before the industry begins to believe our claims. Thus the ramp-up of Chorus' revenues and profits is likely to occur slowly. Much more information about Chorus can be found on its Website at www.chorusmotors.gi.

Power Chips and Cool Chips

Borealis has also developed two technologies based on our research into quantum thermotunneling—the movement of excited electrons across a tiny gap between two electrodes. Both technologies have been made possible only in recent years by advances in semiconductor manufacturing capability and by new understanding of 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.

Major potential applications include power generation in electric or hybrid-electric vehicles, reclaiming and converting 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 most existing means for generating electricity and capture most of this market, while also creating new markets by making electricity almost universally available at a lower cost.



*Cool Chip/Power Chip 1 cm/sq prototype
(shown with a 1 Euro coin for comparison)*

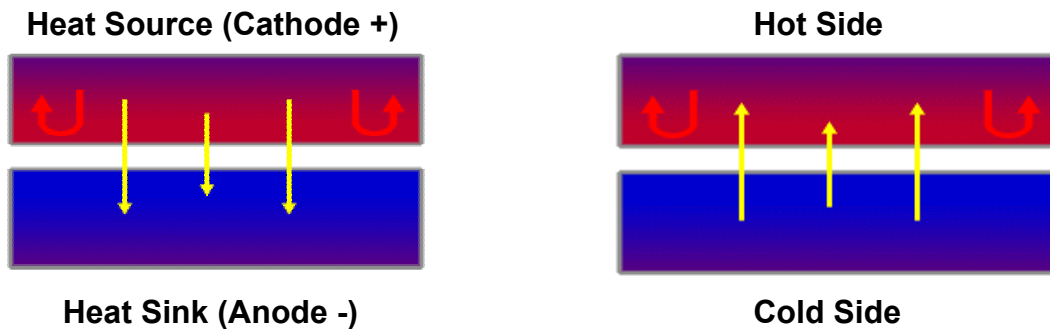
Alternatively, the chips can be operated as Cool Chips to pump heat to provide cooling, refrigeration, and climate control. Because of the inherent advantages in cooling across a nanometer-scale gap between two electrodes, Cool Chips are projected to attain efficiencies higher than those previously available 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 or laptop computers. The first applications are likely to be for military use, for cooling infrared receptors. This use allows military equipment to “see,” as an infrared receptor gets very hot and quickly melts other cooling technologies such as thermoelectric devices. Cool Chips can make a Sidewinder missile viable for 400 miles, when today its range is on the order of 30 miles. But Cool Chips will have innumerable other uses. For example, more than 200 distinct applications have already been identified on commercial aircraft alone.

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; the global cooling industry has sales of more than \$200 billion a year. 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.



Power Chips: Energy from a heat source causes electrons to migrate across the gap, creating a useful electric current.

Cool Chips: By supplying an electric current, high-energy electrons migrate across the gap, creating both a hot and a cold side

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 dominantly 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 exhaust gases (900° Celsius). Thus they have a wide range of potential applications both in day-to-day life and in many industrial processes. By fiscal year-end, our laboratories were routinely manufacturing the core components for prototype Power Chip and Cool Chip devices, each with an active area of 1 square centimeter. More recently, our scientists have reported measuring significant cooling.

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.

In contrast to Chorus, we expect immediate and intense demand for these devices, 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; the world's semiconductor industry will need to expand its capacity manyfold to meet demand for these devices.

The current business plan of Cool Chips plc projects that, in the first 12 months after we achieve production-prototype devices, its revenue will approximate \$827 million, with net income of \$427 million, and with both rising swiftly, to revenue of \$6.3 billion and net income of \$4.3 billion in calendar 2007. Power Chips plc's business plan, starting in calendar 2004, projects revenue of \$1.5 billion and net income of \$420 million, with revenue rising by calendar 2008 to approximately \$18 billion and net income to \$12 billion. Much more information is available on both these technologies and companies, including their business plans, on their respective Websites at www.coolchips.gi and www.powerchips.gi.

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, such as computers and biotech, 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 hundreds of billions of dollars annually—and applied the 20th Century's scientific and technical discoveries 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 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 far-reaching changes in many industries and in regional and national economies. Just as the microprocessor was, they will be the core enabling technologies for new industries and products that we have not yet imagined.

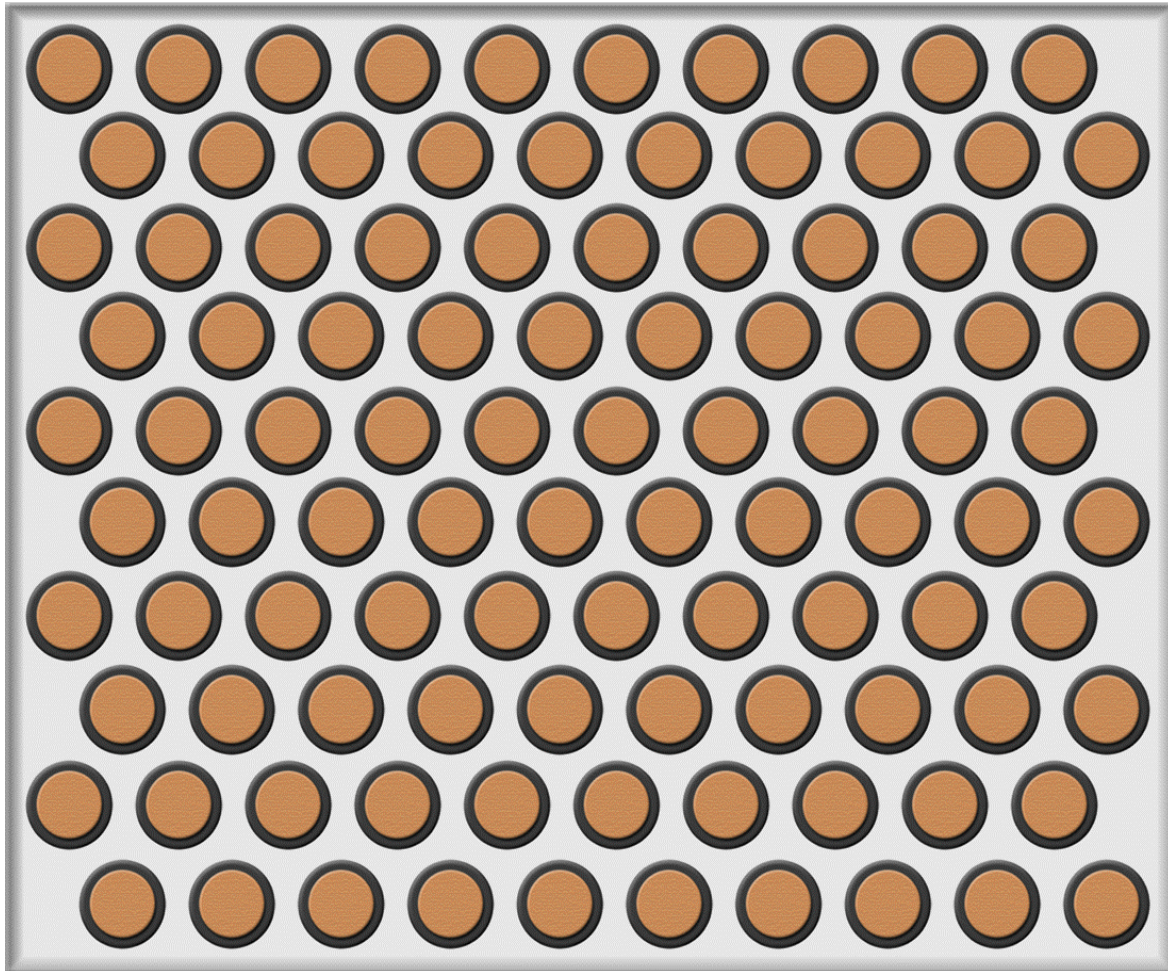
Power Chips, for example, should revolutionize electrical power generation across virtually all applications. In present large generating stations, adding Power Chips to capture heat that is now wasted will enable power plants to produce at least 20% more power with no increase in fuel consumption or 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, electrically-driven vehicles 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 several times the fuel efficiency of 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. For example, Power Chips will greatly expand the potential—and significantly reduce the cost—of generating electrical power from geothermal heat.

This Panel of Power Chips Could Generate 10 Kilowatts

This graphic represents a panel of 100 Power Chips, each 1 cm² in active area. Operating at 70% of maximum Carnot efficiency, with a hot side of 300° F and a cold side at 100° F, and provided with sufficient heat flux (which will require fluid loops), each Power Chip could produce 100 Watts and a panel this size could generate 10,000 Watts of electricity.



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 a 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 and better products, from 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. Chorus will also enable the development of other technologies. Chorus Motors used as generators, for example, will greatly increase the efficiency and reduce the cost of generating electricity from wind.

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.

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

Borealis Technical Limited so far has been granted more than thirty U.S. and international patents for its scientific and technological advances in electric motors, power generation, cooling and refrigeration, steelmaking, and other areas.

Several of these patents are “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.

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 we intend to protect it vigorously.

In fiscal 2003 we received three new U.S. patents. We also filed applications in the U.S. and internationally for an additional dozen patents, and now have a considerable number of applied-for, in-process, and pending patent applications. 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.

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.

Some Borealis Properties and Operations

Our principal operations include:

Chorus Motors plc, www.chorusmotors.gi, is changing motor technology. The patents on this technology are now issuing on a fairly frequent basis, and in the last two years we have received several patents that we believe are among the most important motor patents issued in a century. The basic Chorus technology is completed and we are currently offering licenses to motor manufacturers and end-users.

Cool Chips plc, www.coolchips.gi, is working to complete development of our cooling technology, and prototype builds are underway. We are comfortable with our technical grasp of the technology, and our excellent patent position.

Power Chips plc, www.powerchips.gi, is striving to optimize our power generation technology. Builds are underway, and our issued and pending patents are strong and new patents are continuing to be written and issued.

Photon Power plc has work proceeding toward a go/no-go decision on building these solar power devices. The issued patents on this technology are comprehensive. This company has the solar power generation rights to our technologies and it appears reasonable that in almost any scenario Photon Power™ will become a reality in the future.

Borealis Green Steel™ Technology is a simpler, more efficient, less expensive, and nonpolluting process for manufacturing steel. Some of our consultants feel the Borealis Green Steel Technology could be economically viable for use with our Roche Bay ore, while others feel the technology is worthless. In the Roche Bay plc business plans, Green Steel Technology is not being considered. We have failed thus far to attract outside interest for this patented technology, although we remain interested in pursuing reasonable avenues. We plan to use internal funding, when available, to begin the preliminary build work to see if this one-step Green Steel technology has a future. The analysis for a definitive go/no go decision should cost less than \$10 million and has a very high present discounted expected value. We can possibly get the basic scientific questions answered for less than \$250,000, which would then make the expenditure of the larger sums a rational decision.

Mineral Properties include **Roche Bay plc**, www.rochebay.gi, which owns the Roche Bay Magnetite Deposits in Nunavut, Canada, that contain a possible resource of 4.3 billion tonnes of open pit magnetite (Fe₃O₄) iron ore; and **Faraway plc**, www.faraway.gi. Faraway owns the Freuchen Bay Polymetallic Project, also located in Canada, which, according to our geological staff, is a classic intracratonic rift, polymetallic structure. We hold these properties in good standing until 2019-2023, at which point the leases can be renewed. We expect to be making strategic decisions about the development of these properties in the current fiscal year.

Our Organizational Structure

Borealis, the parent of the Borealis Family of Companies, is a holding company and owns indirectly a majority of all our operating subsidiaries. Borealis owns 99% 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. The licenses require the subsidiaries to pay Borealis 50% of all license and sublicense fees and 8% of gross revenues from royalties. For now Borealis pays all the expenses for all the subsidiaries and all share proceeds from sales of the subsidiary companies are loaned by the subsidiary to the parent company and are due back 100% to the subsidiary. This means that the subsidiaries have no liabilities, as the parent company has assumed them all and as such the balance sheets of the operating subsidiary companies are very strong.

We see additional benefits in our corporate structure. First, operating through subsidiaries has 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 companies 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 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 restrictions in our Articles of Association (which are posted in the Corporate Information section of our Website), our shares cannot 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. Your directors and management are committed to making Borealis Exploration Limited shares valuable. Virtually all public companies issue new shares all the time. Your company is one of the few exceptions to this rule.

The following table shows the shares owned by Borealis 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 Subsidiaries

<i>Company</i>	<i>Borealis shares</i>	<i>Total shares outstanding</i>	<i>%Borealis</i>
Chorus Motors plc	5,219,872	6,044,289	86%
Cool Chips plc	5,212,022	7,997,138	65%
Faraway plc	5,200,000	5,210,006	99%
Photon Power plc	5,200,000	5,211,742	99%
Power Chips plc	5,217,022	7,751,589	67%
Roche Bay plc	5,616,235	5,850,800	96%

Borealis was a Canadian company for three decades, before moving to Gibraltar in 1998. Borealis and most of our subsidiaries are now domiciled in Gibraltar for several reasons. First, Gibraltar is an excellent place for a company to be domiciled. It is a self-governing British Colony fully within the European Union. Its location in Europe is near the geographic centre of Borealis' work, and it also offers a very comfortable, English-speaking environment. Gibraltar is home to thousands of companies and has the services and advisory infrastructure to permit the efficient conduct of business.

Gibraltar is also a tax-efficient domicile. Borealis and its operating subsidiaries in Gibraltar are tax-exempt companies, and the Gibraltar Government has proposed to entirely eliminate corporate taxes on corporations domiciled there. Initially, most of our income will derive from the manufacture and sale of high-value products from Gibraltar. Much of Borealis' income, wherever in the world we are domiciled, will in time probably derive from foreign-source license fees and royalties—generally known as foreign accrual property income. In most jurisdictions, such forms of income are taxed very heavily—sometimes, with withholding, at rates exceeding 100%. This will mean that we will most likely become manufacturers of high-value products in Gibraltar in order to make sure that we are always current with our technologies and to minimize onerous foreign accrual property income taxes.

The proposed elimination of corporate taxes for all Gibraltar companies will also eliminate “ring fencing,” which will place all Gibraltar companies on the same tax footing and bring Gibraltar into compliance with EU regulations and laws. Borealis retains some flexibility by also having some companies domiciled outside Gibraltar.

While 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 over 5,000 messages to each board member. Borealis has intense direct participatory management, and many consultants to the Company sit in on the board meetings and provide input even while they are not voting members.

Our Website, www.borealis.gi, makes information about our technologies available, and informs shareholders, other companies, and the general public about Borealis. The Website is frequently updated, and our major disclosed technologies are described on the site in detail. As patent offices issue more patents to Borealis, a more complete picture of our extensive research efforts will become publicly available on the Website. Additionally, Borealis sends out a weekly update (as well as daily share trades with prices) to shareholders and to all the major news organizations and other interested parties, detailing our ongoing work and progress (please e-mail pr@borealis.gi if you would like to receive these updates). Through this wide distribution, 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.

Financial Report

As we have done for several years, we are accepting electronic proxies, after 4 June 2003, for the 2003 Annual Meeting, to be held 25 June in Gibraltar. Proxies can be voted either in hard copy, from a link on our web site, or by e-mail to proxy@borealis.gi. It should be noted that, while the annual meeting for 2003 will physically take place in Gibraltar, it will also occur virtually, barring unforeseen technical problems, as for the last several years, over the Internet.

Management Discussion of Audited Financial Results for Fiscal 2003

Our financial statements have been prepared in accordance with Gibraltar Accounting Standards and the Gibraltar Companies Accounts Ordinance 1930, the Gibraltar (Companies Accounts) Ordinance 1999 and the Gibraltar (Consolidated Accounts) Ordinance 1999. We will refer to this as Gibraltar GAAP. We are a Gibraltar company. Most of the companies in the Borealis Family of Companies are domiciled in Gibraltar. We must file financial returns in Gibraltar GAAP. We are under no obligation anywhere else to file financial statements, although they are available to anyone on our Website. All our statements in the future will be in Gibraltar GAAP, which is based upon and similar to United Kingdom GAAP, and they now comply with the new International Accounting Standards (IAS). Our accounts are maintained and we report financial results in United States dollars.

As a development-stage company, Borealis has not yet recorded any revenue, as all revenue is netted against our operating deficit. We have been funding our work principally through sales of shares in the subsidiary companies. Borealis remains short of cash as it has for its entire 35 years as an incorporated company and 34 years as a public company. The expenses involved in maintaining our far-reaching and geographically diverse activities are substantial for a company our size. We have never had sufficient funds to undertake the profoundly ambitious projects that we have taken on for decades. Our work continues and our level of activity continues to increase.

The loss for the financial year was \$153,022 compared to \$996,180 for the financial year 2002. This was a significant improvement as our expenditures increased to \$4,541,699 from \$3,315,383 in financial year 2002.

Our loss per share declined from 20 cents in 2002 to 3 cents per share in financial year 2003.

These numbers were generated from the gain on decrease in our interest in subsidiaries of \$6,161,488 in financial year 2003 compared to \$3,764,956 in financial year 2002.

We have very large holdings in the subsidiary companies the values of which are shown on our balance sheet as totaling \$580 (excluding Faraway plc, which is owned directly by Borealis). The minority shareholders' equity interest in the subsidiaries grew from \$798,151 to \$2,433,869 in financial 2003.

Our fixed assets grew slightly in financial 2003 to \$5,168,752 from \$5,047,478 while our net current liabilities went to \$1,169,050 from \$862,446. Our net assets grew in fiscal year 2003 to \$4,255,879 from \$1,985,032 in the financial year 2002.

Total shareholder funds for fiscal 2003 were a negative \$303,097 compared to a negative \$150,075 in financial year 2002.

The non-consolidated balance sheet shows a cumulative net deficit in shareholder funds in fiscal 2003 of \$13,180,576 compared to \$9,705,095 in 2002. The non-consolidated balance sheet shows a cumulative negative profit and loss account of \$37,471,555 at fiscal year-end 2003 compared to a negative \$33,976,074 for fiscal year 2002.

The financial statements show a remarkably healthy, vibrant research business that is able to fund itself on good terms for all the stakeholders.

We carry our most valuable assets, our large share portfolio, at book value or cost and not at market value or at the values at which we are selling shares to fund the operations.

With any substantive transactions we can expect in financial 2004 to work through our deficit account and to report actual net revenue and actual operating income. You can be assured that your management will be greatly relieved when and if this occurs.

We expect, if necessary, to continue to raise substantial sums through the sales of shares in the subsidiary companies. We hope that most of the share sales, except at the official offering prices (Power Chips plc \$540/share, Cool Chips plc \$360/share and Chorus Motors plc \$180/share) will be a thing of the past and most of our immediate future funds will come from license agreements and product sales revenue. As soon as we have significant share sales, license revenues or sales revenues, all share sales in all companies will be suspended and we will be buyers of the shares of all our publicly-traded companies.

Please note again that the value of the subsidiary company shares has been written down to zero on the Consolidated books and these investments no longer appear on our Consolidated balance sheet, although on the non-consolidated balance sheet they are carried at \$580, while many of the individual operating companies are carried through the value of Borealis Technical Limited, which is valued on our books at \$160. This procedure, which is in accordance with the consolidation rules of Gibraltar GAAP, means that Borealis' stated assets do not reflect the values of the shares it owns in its subsidiaries except through the consolidation process.

As a result, these shares are effectively carried on Borealis' books at an almost zero valuation. The accounting is correct but, for someone looking at it for the first time, appears somewhat convoluted. As the companies are subsidiaries of Borealis their net accounting values on our books are what our books show as their valuations. Regardless of the market values of the subsidiary companies, only net equity generated from net earnings from the subsidiaries' product and license sales and royalty income will show on our books as assets in addition to the minority interests which show on the consolidated statements as liabilities.

All of Borealis' extensive intellectual property assets are also carried on the books at a nominal value. We are capitalizing only patent office filing fees which amounted at year-end to a net total of \$330,503 after amortization for fiscal 2003 compared to \$318,741 at year-end 2002. These capitalized fees will increase as the patent base grows.

The subsidiary companies currently show no debt and no liabilities, though they do show a small cumulative loss from the management fees charged by their direct parent. Their assets are their very broad-based technology licenses from Borealis Technical Limited and the enormous earning potential that flows from these licenses. Please note again that the subsidiary technical companies pay 50% of their license revenue to Borealis Technical Limited and an 8% royalty on all other revenue for the license to the technologies.

As conditions warrant, all of these companies will have a market develop for their shares. It should be noted that, as each of these subsidiary companies is in a radically different business, your management felt the only rational operating model was to run the businesses as separate entities.

An examination of the books shows that our largest single liability is listed as Creditors amounts falling due after more than one year of \$1,480,654. This amount is the market value of shares that were borrowed principally from members of the Executive Committee some years ago and then sold to fund our operations. We have limited the number of outstanding shares in Borealis and in all the public subsidiary companies. This share total limitation means that these shares that were sold years ago will have to be repurchased on the market, or in some other way obtained, unless we see fit to go through the almost impossible hurdle of issuing more shares. We are covering this obligation in part by having our subsidiary companies issue their shares that are exchanged for Borealis Exploration Limited shares. This changes the obligation from an obligation that has no effective ceiling to one that has a fixed dollar value. Also, when we have sufficient funds we plan to purchase these needed shares privately and on the market. We do not plan to issue new shares, though this item will continue to loom large in our books and can with a strong market in BOREF keep reported earnings limited for some time to come.

Most of our extensive mineral processing equipment from our former Fat Lake mining camp in Nunavut finally arrived in Rankin Inlet this year. The equipment is for sale in Rankin Inlet. To the right buyer this equipment has a replacement cost in Rankin Inlet of several millions of dollars. A potential buyer closed down operations but hopefully there will be other buyers. The equipment is carried essentially at zero on our books.

As noted above, our financial statements possibly do not reflect the intrinsic value of our Company's assets. Borealis has always followed conservative accounting policies. Our liabilities are fully reported while most all our extensive intellectual property assets under Gibraltar GAAP are valued at zero or at a nominal amount on our financial statements.

Borealis Legal Matters

The Company is a plaintiff in several legal actions and a defendant in others relating to its former mining businesses in Canada. None of these actions involves its current businesses and none is material.

Projections for Fiscal 2004

Fiscal 2004 could yield significant operating earnings. Projections are notoriously dangerous, but we would be surprised if we did not have very substantial earnings for fiscal 2004.

The Chorus Motor now has production prototypes in hand and we expect that license agreements with motor manufacturers and motor end-users could soon follow. We have completed several public rounds of testing, and the testing resulted in significant advances for our technology, though with no sales to date. We anticipate that Chorus Motors plc will have both positive cash flow and net earnings in fiscal 2004.

We expect that our scientists will soon achieve laboratory prototypes of Cool Chips and Power Chips. Laboratory production of production prototypes will then hopefully follow in a timely manner. We expect that with announced laboratory prototypes that we will have licensing agreements in short order. All projected production prototype production has been spoken for on good terms and we expect positive earnings and cash flow in fiscal 2004.

Our basic scientific research is of immense significance to many industries. We are working to turn the reality of our superb science into positive cash flow and earnings. Our main goal now is to develop our technologies into marketable products, where they can generate revenue, cash flow and earnings. While we still have not succeeded in our goal of generating the billions of dollars per year in revenue that we are seeking, our scientific advances are substantive, and we feel we are close to making sales of product and licenses.

Please mail in your proxy, or vote at proxy@borealis.gi or on the web at www.borealis.gi.

These are exciting times as your Company changes some of the basic technologies that have driven the industrial world for the past century. Everywhere you look, it is an inescapable reality that the world needs the technologies your Company has developed and owns.

We want to thank you, the members of the Borealis Family, for continuing to fund your Company and the basic industrial research that is the basis of the Borealis Industrial Revolution. Your support has been wonderful. We are working to ensure that your financial rewards for this support will be abundant.

With warmest personal regards,

Borealis Exploration Limited and the Borealis Family of Companies

A handwritten signature in black ink, appearing to read 'Rodney T. Cox', with a stylized flourish at the end.

Rodney T. Cox,
CEO/Chairman of the Board

A handwritten signature in black ink, appearing to read 'Isaiah W. Cox', with a long, sweeping horizontal stroke at the end.

Isaiah W. Cox,
President/Chief Operating Officer

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 may 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 given to shareholders, the investing public and the Government of Gibraltar.

Borealis Exploration Limited

Directors and Officers

Board of Directors

Iris Oren Cox, J.D.	Isaiah W. Cox, A.B.
Benjamin J. Cox, M.B.A.	Joseph J. Cox, B.A.
Nechama Cohen Cox, Ph.D.	Rebecca D. Cox, M.S.
Rodney T. Cox, Ph.D.	David M. Goldenberg, LLB
Donald N. Jones, M.Sc.	Wayne S. Marshall, Ph.D.
A. Asher Turin, Ph.D.	Peter Vanderwicken, A.B.

Officers

Rodney T. Cox, Chairman, Chief Executive Officer, and Acting Chief Financial Officer

Isaiah W. Cox, President and Chief Operating Officer

Stuart Harbron, Chief Patent Officer

James Magdych, Chief Information Officer

Investor Information

Extensive information for investors can be found on our Website at www.borealis.gi. Our annual and quarterly reports for 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.

If you have a question about Borealis, please write to us at pr@borealis.gi.

**BOREALIS EXPLORATION
LIMITED**
Annual Report
for the year ended 31 March 2003

BOREALIS EXPLORATION LIMITED

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BOREALIS EXPLORATION LIMITED

Registered No (Gibraltar) 66632

DIRECTORS AND OFFICERS

Directors

Rodney T Cox	Chief Executive officer
Wayne S Marshall	
Arnold A Turin	
Donald N Jones	
Isaiah W Cox	President/Chief Operating Officer
David M. Goldenberg	
Joseph J Cox	
Peter Vanderwicken	
Benjamin J Cox	
Nechama J. Cox	
Iris O. Cox	
Rebecca D Cox	

Secretary

BDO Fidecs Management Limited

Registered Office

Suite 3G, Eurolife Building
1 Corral Road
Gibraltar

Auditors

Moore Stephens
Suite 5 Watergardens 4
Waterport
Gibraltar

BOREALIS EXPLORATION LIMITED

DIRECTORS' REPORT

The directors submit their report and the audited financial statements for the company and the group for the year ended 31 March 2003.

BOREALIS FAMILY OF COMPANIES' PROFILE

The Group is defined as the "Borealis Family of Companies" comprising those companies listed in Note 9 of the financial statements.

The Company was primarily a mining company prior to 1992. While the Borealis Family of Companies retains its mining properties for future development, it has also added to its operations the business of conducting basic industrial research for which it has patents issued or pending. Since 1995 most of the Borealis Family of Companies' expenses relate to expenses incurred whilst carrying out its research and development activities. These R&D costs have all been written off in the year incurred, and most costs are funded by the issue of shares in subsidiary undertakings.

On 19 October 1998, the Company successfully completed a redomiciliation out of Canada into Gibraltar. Accordingly Borealis Exploration Limited received a Certificate of Discontinuance from Industry Canada and a Certificate of Redomiciliation of a Company from the Registrar of Companies in Gibraltar. This move was consistent with the fact that most of the group's technology research was already being managed in Europe.

BUSINESS REVIEW

Mining Properties

Roche Bay Magnetite Project: www.rochebay.com

A subsidiary company, Roche Bay plc, owns the mineral leases located near Roche Bay, Nunavut, Canada which contain one of the world's largest undeveloped mineable resource of Magnetite (Fe₃O₄). These leases require annual lease payments of \$5,846 per year for those leases expiring in 2019 and \$5,906 per year for those leases expiring in 2021. All leases are renewable and are expected to be renewed on renewal dates. The leases are located in the Baffin Mining District of Nunavut, Canada. Significant work is currently underway in an attempt to bring these properties into production.

By agreement dated 1 March 1979, the Company granted a royalty interest to a third party based on 5% of the Crown Royalty interest on 10,973 acres of mining leases currently held within the group. On 6th March 1979, the Company granted royalties to third parties based on 18.75% of the Crown Royalty.

Freuchen Bay Property

Faraway plc, owns 100% of these claims in the Freuchen Bay Area of the Keewatin Mining District of Nunavut, Canada. These claims cover a series of geophysical/geochemical anomalies that our consultants tell us sit astride an intracratonic rift. The claims were staked on permits in 1992. Faraway plc retains a 100% interest in these claims. The leases will run for 21 years with the ability to renew and will require annual payments of \$1.12 per acre per year. The group has made payments on the property to January 2003 on the assumption that the claim will be successfully taken to lease.

BOREALIS EXPLORATION LIMITED

DIRECTORS' REPORT (Continued)

BUSINESS REVIEW (Continued)

On 24 July 1995, the Attorney General of Canada filed a Notice of Seizure of Goods relating to these mineral properties due to the Company's failure to pay \$97,500 in fines and penalties of \$16,250 related to the Group's failure to clear up the Fat Lake mine site. Approximately \$105,470 of the fine and penalties has been paid to date. The remaining fine of \$8,280 has been provided for by Borealis Exploration Limited. The clean up costs have been successfully completed at the date of these accounts. The Borealis Family of Companies has made arrangements to complete payment of the fine and ensure the site is cleaned up. When this has been completed, it is anticipated that the Seizure Notice will be lifted.

Principal Technologies

Chorus Motor: www.chorusmotors.gi

The Borealis Chorus Motor is a radically improved electric motor that uses electromagnetic harmonics to greatly increase the motor's output, or torque. A Chorus Motor and drive is smaller, lighter, and costs much less to build and operate than a conventional motor with the same output. It is ideal for traction applications such as electric cars and trains.

Cool Chips: www.coolchips.gi

Cool Chips are solid-state devices 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.

Power Chips: www.powerchips.gi

Power Chips are similar 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 most existing technologies for generating electricity.

The Company: Borealis Exploration Limited operates a non-government funded research operation. This is a non capital intensive business where most of the expenditures are for staff and the support of the patenting and accounting work as we have current access to research facilities on excellent terms. The total research and development expenditures have been approximately the same for several years and it is anticipated that the research and development activities will remain at the current level or increase in the fiscal year 2004. Subject to the availability of adequate finance it is expected that a high value research/production fabrication facility will be built by subsidiary companies in 2004. On the minerals side, in 2004 and subsequent years the company anticipates that significant expenditures will be incurred on the development at Roche Bay as work is progressing on putting the Roche Bay mineral resource into production. Finance will be provided by the issuance of further shares in the subsidiary. Various proposals for development and or sale are under discussion.

FINANCIAL REVIEW

The Group results for the year are shown in the consolidated profit and loss account on page 7.

As of 31 March 2003, the Group had retained losses of \$24,587,731 (2002 - \$24,441,054) and a working capital surplus of \$ 567,781 (2002 deficiency - \$(862,446)). The net asset surplus as at 31 March 2003 amounted to \$ 4,255,879 (2002 - \$1,985,032). The operations of the group in the current year were primarily funded by the proceeds from the issue of new shares in the subsidiary companies. There has been recent demand for the shares of some of its subsidiary companies, one of which is currently quoted on the public market with 3 others expected to follow by 2004. Therefore the directors feel confident of the group's ability to generate sufficient equity finance, on which it is presently dependent, until it is able to generate sufficient profits from operations.

BOREALIS EXPLORATION LIMITED

DIRECTORS' REPORT (Continued)

FINANCIAL REVIEW (Continued)

There can be no assurance that the Company or its Subsidiaries' efforts to generate further financing and achieve profitable operations will be successful.

As explained in Note 1(e), all costs relating to the Group's mineral claims and leases have been capitalised and these costs are accordingly reflected in the consolidated balance sheet. The directors are confident that the current market value of the leases is very substantial, and well in excess of their cost. The commercial potentials of certain of the technology investments, as evidenced by the recent market valuations of share issue in subsidiary companies, also justifies the use of the going-concern basis as appropriate for the preparation of these financial statements.

These consolidated financial statements have been prepared under the historical cost convention, and in accordance with the going concern concept, which assumes that the Borealis Family of Companies will be able to realise its assets and discharge its liabilities in the normal course of business rather than through a process of forced liquidation.

DIVIDENDS

There were no dividends declared or proposed during the current or preceding year.

DIRECTORS AND THEIR INTERESTS

The directors who served during the year were as stated on page 1.

The interest of the directors in the shares of the Company were as follows:

	Number of shares held at 31 March 2003	Number of shares held at 31 March 2002
Isaiah W. Cox	243,165	243,165
Donald N. Jones	55,548	55,548
Arnold A. Turin	100	100
Joseph J. Cox	31,329	31,329
Rebecca D Cox	2,000	2,000
Rodney T. Cox	161,600	161,600
Iris Cox	2,000	2,000
Benjamin J. Cox	39,353	39,353
Nechama Cohen Cox	16,700	16,700
David M. Goldenberg	100	100
Wayne S. Marshall	114,040	114,040
Peter Vanderwicken	32,500	27,500

There are no share options outstanding in the Company at the balance sheet date.

BOREALIS EXPLORATION LIMITED

DIRECTORS' REPORT (Continued)

DIRECTORS' RESPONSIBILITIES

Gibraltar company law requires the directors to prepare financial statements for each financial year that give a true and fair view of the state of affairs of the company and the group and of the group's profit or loss for that period. In preparing those financial statements, the directors are required to:

- Select suitable accounting policies and then apply them consistently
- Make judgements 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
- Prepare the financial statements on the going concern basis, unless this is considered inappropriate

The directors are responsible for keeping proper accounting records that 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 Ordinance 1930, the Gibraltar Companies (Accounts) Ordinance 1999 and the Gibraltar Companies (Consolidated Accounts) Ordinance 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.

AUDITORS

A resolution to reappoint Moore Stephens will be proposed at the Annual General Meeting.

By order of the Board



.....
Isaiah W Cox
Director



.....
Rodney T Cox
Director

10 June 2003

BOREALIS EXPLORATION LIMITED

AUDITORS' REPORT TO THE SHAREHOLDERS of Borealis Exploration Limited

We have audited the financial statements on pages 7 to 19 which have been prepared under the historical cost convention and the accounting policies set out on page 12 and 13.

This report is made solely to the company's members as a body, in accordance with the Companies Ordinance 1930. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of directors and auditors

As described in the report of the Directors, the company's Directors and management are responsible for the preparation of financial statements. It is our responsibility to form an independent opinion, based on our audit, on those statements and to report our opinion to you.

Basis of opinion

We conducted our audit in accordance with Auditing Standards issued by the Auditing Practices Board in the United Kingdom. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the directors in the preparation of the financial statements and of whether the accounting policies are appropriate to the company's circumstances, consistently applied and adequately disclosed.

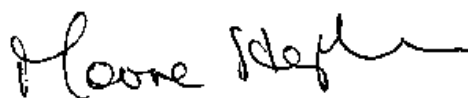
We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial statements.

In forming our opinion, we have considered the disclosures made in note 2 of the financial statements in connection with the application of the going concern basis and the uncertainty with regards to securing continued financial support. In view of the significance of these matters we consider they should be drawn to your attention but our opinion is not qualified in these respects.

Opinion

In our opinion the financial statements give a true and fair view of the state of affairs of the company and group as at 31st March 2003 and of the loss and cash flows of the group for the year then ended in accordance with Gibraltar Accounting Standards and have been properly prepared in accordance with the Gibraltar Ordinance 1930 and the Gibraltar Companies (Accounts) Ordinance 1999.

Gibraltar



Moore Stephens
CHARTERED ACCOUNTANTS

BOREALIS EXPLORATION LIMITED

CONSOLIDATED PROFIT AND LOSS ACCOUNT

For the year ended 31 March 2003

	Notes	2003 \$	2002 \$
Expenditure		(4,514,699)	(3,315,383)
Operating loss	4	(4,514,699)	(3,315,383)
Financing gain/ (costs)		641,760	(430,000)
Interest		(17,701)	(19,573)
Loss on ordinary activities before taxation		(3,890,640)	(3,764,956)
Taxation	8	—	—
Loss on ordinary activities after taxation		(3,890,640)	(3,764,956)
Gain on decrease in stake in subsidiaries		6,161,488	3,566,927
Equity Minority interest		(2,417,524)	(798,151)
Loss for the financial year		<u>\$ (146,677)</u>	<u>\$ (996,180)</u>
Loss per ordinary share	10	\$ (0.03)	\$ (0.20)

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

There is no difference between the loss on ordinary activities before taxation and the loss for the financial year stated above and their historical cost equivalents.

No statement of recognised gains and losses has been produced as the only recognised gains and losses occurring in the year are those disclosed in the Profit and Loss Account.

BOREALIS EXPLORATION LIMITED

CONSOLIDATED BALANCE SHEET

as at 31 March 2003

	Notes	2003 US\$	2002 US\$
Fixed Assets			
Intangible assets	11	330,503	318,741
Tangible assets	12	14,682	20,302
Investments – mining properties	13	4,823,567	4,708,435
		<u>5,168,752</u>	<u>5,047,478</u>
Current assets			
Cash at bank and in hand		-	20,162
Accounts Receivable	14	1,736,831	-
		<u>1,736,831</u>	<u>20,162</u>
Creditors: amounts falling due within one year	15	<u>1,169,050</u>	<u>882,608</u>
Net current assets/(liabilities)		<u>567,781</u>	<u>(862,446)</u>
Total assets less current liabilities		<u>5,736,533</u>	<u>4,185,032</u>
Creditors: amounts falling due after more than one year	16	<u>1,480,654</u>	<u>2,200,000</u>
Net Assets		<u>\$ 4,255,879</u>	<u>\$ 1,985,032</u>
Capital and Reserves			
Called up Share Capital	17,18	49,826	49,826
Share Premium account	17,18	24,241,153	24,241,153
Profit and loss account	18	(24,587,731)	(24,441,054)
Total shareholders' funds		<u>(296,752)</u>	<u>(150,075)</u>
Minority interests - equity		<u>4,552,631</u>	<u>2,135,107</u>
		<u>\$ 4,255,879</u>	<u>\$ 1,985,032</u>

The financial statements on pages 7 to 19 were approved by the Board of Directors on 2nd June 2003 and signed on their behalf by:



Isaiah W Cox
Director



Rodney T Cox
Director

BOREALIS EXPLORATION LIMITED

COMPANY BALANCE SHEET as at 31 March 2003

	Notes	2003 \$	2002 \$
Fixed Assets			
Intangible assets	11	330,503	318,741
Tangible assets	12	14,682	20,302
		<u>345,185</u>	<u>339,043</u>
Investments in subsidiary undertakings	9	52,680	580
		<u>397,865</u>	<u>339,623</u>
Current assets			
Cash at bank and in hand		—	20,162
Debtors	14	52,000	52,000
Accounts Receivable	14	1,736,831	—
		<u>1,788,831</u>	<u>72,162</u>
Creditors: amounts falling due within one year	15	13,886,618	7,916,880
Net current liabilities		<u>(12,097,787)</u>	<u>(7,844,718)</u>
Total assets less current liabilities		<u>(11,699,922)</u>	<u>(7,505,095)</u>
Creditors: amounts falling due after more than one year	16	1,480,654	2,200,000
Total net liabilities		<u>\$ (13,180,576)</u>	<u>\$ (9,705,095)</u>
Deficiency in assets			
Called up Share Capital	17,18	49,826	49,826
Share Premium account	17,18	24,241,153	24,241,153
Profit and loss account	18	(37,471,555)	(33,996,074)
Total deficit in shareholders funds		<u>\$ (13,180,576)</u>	<u>\$ (9,705,095)</u>

The financial statements on pages 7 to 19 were approved by the Board of Directors on 2nd June 2003 and signed on their behalf by:



Isaiah W Cox
Director



Rodney T Cox
Director

BOREALIS EXPLORATION LIMITED

CONSOLIDATED CASH FLOW STATEMENT for the year ended 31 March 2003

	2003 \$	2002 \$
Net cash outflow from operating activities	(5,951,809)	(3,367,096)
Returns on investments and servicing of finance		
Interest paid	(17,702)	(19,573)
Net cash outflow from returns on investments and servicing of finance	(17,702)	(19,573)
Capital expenditure and financial investment		
Patent additions	(27,163)	(23,088)
Purchase of tangible fixed assets	—	—
Purchase of fixed asset investment	—	138,000
Lease costs of mining properties	(115,132)	(70,764)
Net cash (outflow)/inflow from capital expenditure and financial investment	(142,295)	44,148
Acquisitions and disposals		
Cash received for issuance of shares by subsidiaries	1,092,671	1,162,375
Compensation for services provided by deposits	5,068,818	2,404,553
Net cash inflow from disposals	6,161,489	3,566,928
Net cash inflow before financing	49,686	224,407
Financing		
Funds repaid for purchase of shares advanced by directors	(77,586)	(190,000)
Net cash (outflow) from financing	(77,586)	(190,000)
(Decrease)/ Increase in cash	\$ (27,903)	\$ 34,407

BOREALIS EXPLORATION LIMITED

CONSOLIDATED CASH FLOW STATEMENT (Continued) for the year ended 31 March 2003

RECONCILIATION OF OPERATING LOSS TO NET CASH OUTFLOW FROM OPERATING ACTIVITIES

	2003 \$	2002 \$
Operating loss	(4,514,699)	(3,315,383)
Depreciation of tangible fixed assets	5,620	6,763
Amortisation of patents	15,400	14,350
(Increase) Decrease in trade receivables	(1,736,831)	--
Increase (Decrease) in trade creditors	278,701	(72,826)
Net cash outflow from operating activities	\$ (5,951,809)	\$ (3,367,096)

MOVEMENT IN CASH AND ANALYSIS OF CASH BALANCES

Changes in net cash	2003 \$	2002 \$
At 1 April	20,162	(14,245)
Increase / (Decrease) in cash in the year	(27,903)	34,407
At 31 March	\$ (7,741)	\$ 20,162

Analysis of cash balances	2003 \$	2002 \$
Cash at bank	—	20,162
Bank overdrafts	(7,741)	--
Net cash at 31 March	\$ (7,741)	\$ 20,162

BOREALIS EXPLORATION LIMITED

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31 March 2003

1 PRINCIPAL ACCOUNTING POLICIES

In compliance with Gibraltar legislation, the Company now presents its financial statements for the year ended 31 March 2003 in accordance with Gibraltar Accounting Standards and the Gibraltar Companies Ordinance 1930, the Gibraltar (Companies Accounts) Ordinance 1999 and the Gibraltar (Consolidated Accounts) Ordinance 1999 (together, 'Gibraltar GAAP')

A summary of the principal accounting policies, which have been applied consistently is set out below:

a. Basis of accounting

The financial statements are prepared in accordance with the historical cost convention.

b. Basis of Consolidation

The consolidated accounts include the Company and its subsidiary undertakings. Intra-group balances and transactions are eliminated fully on consolidation.

c. Fixed Assets

Tangible fixed assets and intangible fixed assets are stated at their purchase cost, together with any incidental expenses of acquisition.

Depreciation is provided on all fixed assets to write off their cost less residual value over their estimated useful lives. The rates in use on a reducing balance method are as follows:

Mining and geological equipment	30%
Other equipment	20%

Patents are accounted for on the basis of the costs of registering the worldwide rights. All costs of development and legal works of the products have been written off in the year incurred. These patents are depreciated on the straight-line method at a rate of 4% per year. The carrying value of patents is reviewed annually by the Group. If, as a result of such a review, it is determined that the value has been permanently impaired, any diminution in value is taken to the profit and loss account in accordance with FRS 11. To the extent that such diminution in value is subsequently reversed, this reversal is credited to the profit and loss account.

d. Fixed Assets Investments

Fixed asset investments are stated at their historical cost less any provision for permanent diminution in value.

e. Mineral reserves

These are stated at cost, less any provision for diminution in value that may, in the opinion of the directors, have taken place. Under Gibraltar GAAP these costs include developing and maintaining the property. The policy on amortisation is that this will be charged on a straight-line basis over the period over which commercial mining operations are expected to continue. At present no amortisation is being charged until exploitation begins.

f. Research and Development

Research and Development costs are written off in the year they are incurred.

BOREALIS EXPLORATION LIMITED

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31 March 2003 – continued

g. Reporting currency

The Group's financial statements are presented in US dollars, which is the functional currency for operations.

h. Foreign currency translation

Transactions in currencies other than US Dollar are recorded at the rate of exchange ruling at the date of the transaction. Monetary assets and liabilities denominated in such currencies are translated at the rate of exchange ruling at the balance sheet date.

i. Going Concern

These financial statements have been prepared under the going concern concept which assumes that the Group 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 2 to 5 and within note 2 below.

j. Taxation including deferred tax.

No provision is made for corporation tax, nor for deferred tax, as the company and the subsidiaries are exempt from paying corporation tax on their profits.

2. 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. The Company has free trading shareholdings in many of the subsidiary Borealis Family of companies that are carried at nominal value. One of those companies is now quoted on the public market. However, there can be no assurance that the Company or its Subsidiaries' efforts to generate further financing and profitable operations will be successful. The financial statements do not contain any adjustments that might be necessary if the Borealis Family of Companies is unable to continue as a going concern.

3. SEGMENTAL REPORTING

The Borealis Family of Companies has two reportable operating segments. The group'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 group'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.

4. OPERATING LOSS

	2003	2002
Operating profit is stated after charging	\$	\$
Depreciation	5,620	6,763
Amortisation	15,400	14,350

BOREALIS EXPLORATION LIMITED

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31 March 2003 – continued

5. DIRECTORS EMOLUMENTS

The total amount of emoluments paid to directors during the year was \$ 1,465,200 (2002 - \$1,052,600).

In addition, rent totalling approximately \$103,000 (2002 - \$102,000) has been charged to the group by the chief executive officer for provision of office space.

6. EMPLOYEE INFORMATION

The company has no employees during the current or preceding period. Services to the company are provided by way of consultancy agreements.

7. PROFITS OF HOLDING COMPANY

Of the loss for the financial year a deficit of \$(3,559,001) is dealt with in the financial statements of the parent company. The directors have taken advantage of the exemption available under section 10 of the Gibraltar Companies (Consolidated Accounts) Ordinance 1999 and not presented a profit and loss account for the company alone.

8. TAXATION

The company and its subsidiaries have been granted exempt status under the Gibraltar Companies (Taxation and Concessions) Ordinance. Providing the company continues to satisfy the criteria for such status, including the payment of an annual government charge of £225 it will not be subject to Gibraltar Corporation Tax for a period of twenty-five years from 24 August 1999, the date on which it was granted such status. There is proposed legislation now pending approval that may change the tax status of the company in the foreseeable future, although it appears likely that a low or zero rate of taxation will apply under the proposed new structure.

9. INVESTMENTS IN SUBSIDIARY 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 USA) are registered in Gibraltar:

Directly held by the Company	Ownership Interest		Investments	
	2003	2002	2003 \$	2002 \$
Borealis Technical Limited	99%	99%	160	160
Credits Holdings Limited	99%	99%	160	160
Roche Bay Holdings Limited	99%	99%	160	160
Borealis Exploration Incorporated	100%	100%	100	100
Faraway Public Limited Company	100%	100%	52,100	-
Total investments			52,680	580

BOREALIS EXPLORATION LIMITED

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31 March 2003 – continued

Indirectly held by the company	Ownership	
	Interest	
	2003	2002
Chorus Motors Public Limited Company	86.0%	87.4%
Cool Chips Public Limited Company	65.0%	70.8%
Photon Power Public Limited Company	99.8%	99.8%
Power Chips Public Limited Company	67.3%	71.0%
Roche Bay Public Limited Company	92.6%	97.4%
Roche Bay Holdings (Barbados) Limited	100%	-
Borealis Roche Bay Limited	99%	99%

Of the above companies, shares of Cool Chips plc are trading on the open market in the United States and Chorus Motors plc has made a application to the NASD for trading privileges. Application is expected to be made shortly for shares of Power Chips plc also to be traded on the US market.

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

The Group has principally funded itself in the past with the proceeds of the issue of shares in its subsidiaries, which has resulted in the dilution of the Company's holdings in these subsidiaries though the transactions were anti dilutive 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.

In 2003, further funds were raised by the issue of shares at a premium by Chorus Motors plc, Cool Chips plc, Photon Power plc, Power Chips plc and Roche Bay plc. A minority interest of \$4,552,631 (2002 - \$2,135,107) in the subsidiaries is presented on the balance sheet effective 31st March 2003. The Equity of the Borealis Group in the share premiums paid by third parties during the year of \$6,161,488 (2002 - \$3,566,928) is shown as a gain in the profit and loss account.

10. EARNINGS PER SHARE

Earnings / (losses) per share is calculated by dividing the earnings / (losses) attributable to ordinary shareholders by the weighted average number of ordinary shares in issue during the year. Diluted earnings / (losses) per share is calculated by adjusting basic earnings / (losses) and the weighted average number of shares for the effects of all dilutive potential shares.

BOREALIS EXPLORATION LIMITED

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31 March 2003 – continued

	Earnings \$	2003 Weighted average number of shares	Per share Amount \$	Earnings \$	2002 Weighted average number of shares	Per share amount \$
Basic EPS						
(Losses) /Earnings attributable to ordinary shareholders	\$ (146,677)	4,982,605	(0.03)	\$ (996,180)	4,982,605	(0.20)

11. INTANGIBLE FIXED ASSETS – PATENT FILING FEE

	Cost \$	Amortisation \$	Total \$
At 1 April 2002	358,757	40,016	318,741
Additions / Charge in year	27,163	15,400	11,762
	<u> </u>	<u> </u>	<u> </u>
At 31 March 2003	<u>\$ 385,920</u>	<u>\$ 55,416</u>	<u>\$ 330,503</u>

12. TANGIBLE FIXED ASSETS

	Mining, Drilling and Camp Equipment \$	Office Equipment \$	Total \$
Cost			
At 1 April 2002	655,808	50,478	706,286
Additions	–	--	--
	<u> </u>	<u> </u>	<u> </u>
At 31 March 2003	<u>655,808</u>	<u>50,478</u>	<u>706,286</u>
Depreciation			
At 1 April 2002	647,436	38,548	685,984
Charge for year	3,180	2,440	5,620
	<u> </u>	<u> </u>	<u> </u>
At 31 March 2003	<u>650,616</u>	<u>40,988</u>	<u>691,604</u>
Net book value			
At 31 March 2003	<u>\$5,192</u>	<u>\$7,490</u>	<u>\$14,682</u>
	<u> </u>	<u> </u>	<u> </u>
At 31 March 2002	<u>\$ 8,372</u>	<u>\$ 11,930</u>	<u>\$ 20,302</u>

BOREALIS EXPLORATION LIMITED

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31 March 2003 – continued

13. INVESTMENT – MINING PROPERTIES

	2003 \$	2002 \$
Mining Properties	\$ 4,823,567	\$ 4,708,435

The investment in the mining properties located at Roche Bay and Freuchen Bay relates to leases granted by the Government of Canada and claims staked for the exploitation of these Sites with regards to the mineral resources. To date costs for the maintenance of these leases and claims along with expenses in preliminary studies of the properties have been capitalised. The directors are confident that substantial mineral resources have been established in these properties.

These mineral resources were considered ‘proven reserves’ by the Ontario Securities Commission for decades. The definitions have now changed for these mineral resources, however with the current state of knowledge there are sufficient known resources today to place these properties into production. The Company is engaged in planning for the exploitation of these resources.

14. DEBTORS

	Group 2003 \$	2002 \$	Company 2003 \$	2002 \$
Advances to suppliers and consultants	1,736,831	–	1,736,831	–
Amounts due from group undertakings	–	–	52,000	52,000
Total accounts receivable	\$ 1,736,831	\$ –	\$ 1,788,831	\$ 52,000

15. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	Group 2003 \$	2002 \$	Company 2003 \$	2002 \$
Bank loans and overdrafts	7,741	--	7,741	--
Trade creditors	1,161,309	882,608	1,161,309	882,608
Amounts due to group undertakings	–	–	12,717,568	7,034,272
	\$ 1,169,050	\$ 882,608	\$ 13,886,618	\$ 7,916,880

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

BOREALIS EXPLORATION LIMITED

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31 March 2003 – continued

16. CREDITORS: AMOUNTS FALLING DUE AFTER MORE THAN ONE YEAR

	Group		Company	
	2003	2002	2003	2002
	\$	\$	\$	\$
Other creditors	\$1,480,654	\$2,200,000	\$1,480,654	\$2,200,000

Other Creditors represent loans made to the company by certain directors with regards to helping to finance the operations of the company. In order to be in a position to make these loans the directors have sold a net on the market of 223,744 shares (2002 – 249,606). The Group is obliged to return the loan once it is in a position to do so, by repaying to the directors sufficient funds to allow the directors to re-purchase 240,379 shares on the open market. The amount due to directors is determined at each year-end. In 2003 25,862 shares were repurchased. In addition 199,300 options were exercised in previous years and the shares were not delivered to the purchasers as the exercise exceeded the number of shares that the company is authorized to issue. The total amount is considered due to other creditors and carried at a value that approximates to market value.

17. CALLED UP SHARE CAPITAL

		2003	2002		
		\$	\$		
Authorised share capital					
5,000,000 ordinary shares @ \$0.01 each		\$ 50,000	\$ 50,000		
	Number of Shares	Share Capital \$	Share Premium \$	Total \$	
Issued share capital					
At 31 March 2002 and 2003		4,982,605	\$ 49,826	\$ 24,241,153	\$ 24,290,979

18. RECONCILIATION OF MOVEMENTS IN SHAREHOLDERS FUNDS

Group	Share Capital	Share	Consolidated	Total
	\$	Premium	Profit & Loss	\$
		Account	Account	
		\$	\$	
At 31 March 2001	49,826	24,241,153	(23,444,874)	846,105
Loss for the year	–	–	(996,180)	(996,180)
At 31 March 2002	49,826	24,241,153	(24,441,054)	(150,075)
Loss for the year	–	–	(146,677)	(146,677)
At 31 March 2003	\$ 49,826	\$ 24,241,153	\$ (24,587,731)	\$ (296,752)

BOREALIS EXPLORATION LIMITED

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31 March 2003 - continued

19. RELATED PARTY TRANSACTIONS

There are no related party transactions other than as described elsewhere in these financial statements. (see note 5)

A related party, called Shiloh Limited International Inc, received \$286,000 (2002 - \$125,950) during the year for management services. The CEO is an agent for Shiloh Limited International, Inc. Shiloh Limited International, Inc. is owned by the Jeremiah Toyam Cox Foundation Limited of which the CEO is a member of the Council.

20. CONTINGENT LIABILITIES

Environmental claim

Following the claim in 1995, as described in the directors report, in 1996, further statements of claim were filed by the Attorney General of Canada, the Kilvalli Inuit Association and the Baffin Region Inuit Association for failure to clean up sites in Fat Lake, Roche Bay and near Naguak Lake. The Group has filed counter suits against these parties. At the present time, the result of these claims and any potential cost to the group is not determinable and no liability for this has been recorded in these financial statements.

Royalty payment

In 1993, Borealis renegotiated its loan with Mr. G. Gillet, which had been assigned to Boston Safe Deposit & Trust Company (Boston Safe). Under the agreement with Boston Safe, the loan was converted into 10,000 common shares of Borealis and a \$ 1,874,675 USD royalty. The royalty is to be paid from 25% of the net proceeds from the lease, sale or other disposition, or production on or from its mineral properties. To date, US \$2,625 has been paid to Boston Safe. In 1995, Boston Safe assigned its interest to its nominee, Mitlock Limited Partnership. This liability only becomes payable if the company sells, disposes or commences production of the mineral properties. Consequently under Gibraltar GAAP, this liability has been reported as a contingent liability.