

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-K**

(Mark One)

**Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

**For the fiscal year ended December 31, 2002**

**Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission File Number: 000-23329**

**Charles & Colvard, Ltd.**

(Exact name of Registrant as specified in its charter)

**North Carolina**  
(State or other jurisdiction of incorporation)

**56-1928817**  
(I.R.S. Employer Identification No.)

**3800 Gateway Boulevard, Suite 310,**  
**Morrisville, N.C**  
(Address of principal executive offices)

**27560**  
(Zip Code)

**Registrant's telephone number, including area code: (919) 468-0399**

**Securities registered pursuant to Section 12(b) of the Act:**

**None**

**Securities registered pursuant to Section 12(g) of the Act:**

**Common Stock, no par value per share**

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No .

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2)

Yes  No .

The aggregate market value of the voting stock held by non-affiliates of the Registrant as of June 28, 2002 was \$48,762,996.

On February 28, 2003, there were 13,272,755 outstanding shares of the Registrant's common stock.

**DOCUMENT INCORPORATED BY REFERENCE**

Certain portions of the Proxy Statement of the Registrant for the Annual Meeting of Shareholders to be held on May 12, 2003 have been incorporated by reference into Part III of this Annual Report on Form 10-K.

## FORWARD LOOKING STATEMENTS

*This Annual Report on Form 10-K contains forward-looking statements that relate to any plans, objectives, estimates and goals. Words such as “expects,” “anticipates,” “intends,” “plans,” “believes” and “estimates” and variations of such words and similar expressions identify such forward-looking statements. Our business is subject to numerous risks and uncertainties, including our ability to manage growth effectively, our limited operating history, our dependence on continued growth and consumer acceptance of our products, limited distribution channels and our dependence on third parties. These and other risks and uncertainties, many of which are addressed in more detail below in the sections entitled “Business Risks” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” could cause our actual results and developments to be materially different from those expressed or implied by any of these forward-looking statements.*

### Part I

#### ITEM 1. BUSINESS

##### Introduction

We are Charles & Colvard, Ltd., a North Carolina corporation that manufactures, markets and distributes Charles & Colvard created moissanite jewels (also called moissanite or moissanite jewels) for sale in the worldwide jewelry market. Moissanite, also known by its chemical name, silicon carbide (SiC), is a rare, naturally occurring mineral found primarily in meteorites. As the sole manufacturer of scientifically-made moissanite jewels, we are creating a unique brand image which positions moissanite as a jewel in its own right, distinct from all other jewels based on its fire, brilliance, luster, durability and rarity.

Our moissanite jewels are made from SiC crystals grown by Cree, Inc. Cree has an exclusive license to a patent related to a process for growing large single crystals of SiC. We know of no other producers of SiC that could currently supply lab-grown SiC crystals in qualities, sizes or volumes suitable for use as moissanite jewels. We have certain exclusive licenses and supply rights with Cree for SiC materials to be used for gemstone applications.

From our inception in June 1995 through June 30, 1998, we were a development stage enterprise, devoting our resources to fund research and development of colorless, scientifically made moissanite jewels. We began shipping moissanite to domestic retail jewelers and international distributors during the second quarter of 1998. At that time, we launched limited consumer-focused advertising and promotion activities.

Through the first half of 1999, we limited our efforts to expand the distribution of moissanite jewels as a result of insufficient product availability and our lack of confidence in the quality of the SiC crystals we were receiving. Late in the second quarter of 1999, we began to receive indications that the quality of the SiC crystals was improving rapidly. The rate of improvement in the quality of the SiC crystals continued to accelerate through the end of 1999, far exceeding our expectations. At the same time, we experienced a decline in sales of moissanite jewels during the third quarter of 1999 as a result of the following:

- a slow growth in the addition of domestic retailers;
- lack of targeted retailer-driven marketing programs abroad; and
- poor overall jewelry market performance in certain international markets.

The improved supply of SiC crystals along with the decrease in sales led to a significant increase in inventories of moissanite jewels. In December 1999, we rescheduled approximately 50% of the expected shipments of SiC crystals from Cree from the first half of 2000 to the second half of 2000. Inventory

increased to \$23.1 million at December 31, 2000. During 2001, we purchased \$1.2 million of raw materials and inventory decreased by \$1.7 million. In 2002, raw material purchases increased to \$5.5 million to accommodate our need for additional inventory of selected shapes and sizes and to support anticipated growth. With our growth in sales, inventory increased only \$1.0 million and finished goods inventory decreased \$2.1 million.

With the improvements in the supply of saleable moissanite jewels, we launched our strategic global marketing program in the fourth quarter of 1999 to spur consumer awareness of moissanite jewels. During 2001, this program was refocused to emphasize use of public relations activities to increase consumer brand awareness while reducing higher cost print and media advertising. In addition, in March 2000, we entered into distribution agreements with Stuller Settings, Inc. (Stuller) and Rio Grande, two of the largest suppliers of jewelry-related products to the jewelry industry, for the North American distribution of moissanite. We have also entered into several agreements with domestic jewelry manufacturers, two of which sell to TV home shopping channels that sell moissanite jewels on the air. Through these agreements with Stuller, Rio Grande and jewelry manufacturers and the brand awareness created by our marketing program, our goal is to rapidly increase the introduction of moissanite into the domestic jewelry market while maintaining average selling prices.

We made significant investments in our branding program and in developing our manufacturing and operational infrastructures during the fourth quarter of 1999 and through 2000, all in anticipation of future significant and rapid growth. During 2000, we restructured our operations to reduce our overall general and administrative expense levels in order to conserve cash and attempt to position the Company to achieve profitability in the future. Additionally, mandatory research and development expenses under the Development Agreement with Cree have been eliminated through termination of the Development Agreement.

Our strategy for 2001 was to become profitable during the year by achieving modest growth in sales while reducing marketing and advertising costs, maintaining our lower general and administrative expense levels and curtailing research and development expenses. We succeeded in achieving profitability and positive cash flow from operations in 2001, while sales declined by 10%. Our strategy for 2002 was to achieve sales growth, primarily in the domestic market, and to maintain profitability. We achieved both of those goals in 2002. The domestic distribution of moissanite expanded into additional retail stores and home shopping channels. Domestic sales accounted for approximately 85% of total sales in 2002. In 2003, we will continue to expend the majority of our resources on the domestic market. However, we will invest resources in certain international markets that show the most potential. We believe that our sales can increase as the distribution of moissanite jewels expands domestically and internationally. Our management believes that our current infrastructure and stage of product development can support a significant growth in sales. Although our goal is to increase sales and remain profitable in 2003, we cannot be sure that we will achieve or sustain sales increases or profitability.

### **The Jewelry Market**

In 2002, the consumer market for fine and costume jewelry sales in the United States was approximately \$53.0 billion, with fine jewelry representing approximately \$42.3 billion. Worldwide jewelry sales have historically been 2.5 times greater than sales in the U.S.

*Diamond Jewelry.* In 2002, diamond jewelry sales in the U.S. were \$27.1 billion. Over 90% of the diamond jewelry pieces sold domestically used settings other than engagement rings (i.e., pendants, bracelets, other rings, earrings, etc.).

*Distribution Channels.* Traditionally, consumers have purchased jewelry through independent and chain jewelry stores and department stores. However, in the past two decades, non-traditional distribution channels such as catalog showrooms, mass-market discounters, price clubs, mail order, TV shopping channels and electronic commerce on the Internet have emerged. Moissanite is sold to consumers

through single- and multiple-location independent jewelry stores, jewelry store chains, TV shopping channels and in catalogs.

## **Moissanite**

Moissanite is a rare, naturally occurring mineral found primarily in meteorites. Naturally occurring moissanite is generally very small in size and dark green or black in color and is not a commercially viable gemstone material. Therefore, we expect only lab-grown SiC crystals to provide a meaningful source of moissanite for jewels.

It is generally accepted that, in addition to carat size, the most important characteristics of a gemstone are beauty, durability and rarity. The beauty of a gemstone is determined by its color, brilliance, “fire” and luster. The brilliance of a gemstone is measured by its refractive index, or the extent, when coupled with the facet design, to which the gemstone reflects light. The “fire” of a gemstone, or the breaking of light rays into the spectrum of colors, is measured by its dispersion. Luster is the amount of light that is reflected back to the observer from the surface of the gemstone. The durability of a gemstone is determined by its hardness, or resistance to scratching, and its toughness, or resistance to chipping or cleaving. The gemstone’s hardness also determines the extent to which brilliance and “fire” can be highlighted by cutting with sharp, highly polished facets. Rarity is the availability or perceived availability of a gemstone.

Moissanite jewels have unique fire, brilliance, luster, durability and rarity. The refractive index and dispersion of moissanite jewels are higher than those found in other fine gemstones. We believe that the hardness of moissanite jewels is greater than all known gemstone materials except diamond. As a result, moissanite jewels, like diamond, can be cut with sharp, highly polished facets that accentuate their brilliance and “fire.” The cutting specifications for moissanite jewels are designed to maximize the brilliance and fire inherent in the material. Additionally, we evaluate the finished jewels to exacting standards with automated video-imaging equipment and specially trained quality control personnel. Due to the very rare natural occurrence of moissanite and the proprietary and technical limitations in producing mass quantities of jewel quality moissanite, we believe that moissanite is among the rarest of jewels.

In addition, other physical properties of moissanite jewels compare favorably to fine gemstones and will aid in jewelers’ acceptance of our products. Moissanite jewels, like diamond, can withstand high temperatures, which allows jewelers to make extensive repairs to the jewelry setting without removing the jewel and to use the same basic methods that are used to repair diamond jewelry.

Because of its unique atomic structure, moissanite can be grown in a variety of colors including blue, green or yellow. Additionally, although none have been produced to date, the color red is theoretically

possible to grow. To date, we have focused our development, manufacturing and distribution efforts on the colorless form of moissanite, although we have sold limited quantities of green moissanite.

The following table compares the physical properties of moissanite jewels with other fine gemstone materials:

Description	Comparison Chart (1)				
	Hardness (Mohs Scale) (2)	Toughness	Refractive Index	Dispersion	Specific Gravity
Diamond	10	Excellent*	2.42	.044	3.52
C&C Created Moissanite (3)	9.25-9.50	Excellent	2.65-2.69	.090-.104	3.14-3.22
Sapphire & Ruby	9	Excellent	1.76-1.78	.018	3.90-4.00
Emerald	7.5	Poor to Good	1.56-1.60	.014	2.69-2.75

\* Except in cleavage directions.

1. Sources: Gemological Institute Of America, Gem Reference Guide For The GIA Colored Stones, Gem Identification And Colored Stone Grading Courses 32-35, 65-82, 87-90 (1995); Cornelius S. Hurlburt, Jr. & Robert C. Kammerling, Gemology, 320-324 (2d Ed. 1991); Kirk-Othmer Encyclopedia Of Chemical Technology, 891-906 (4<sup>th</sup> Ed. 1994); Institution Of Electrical Engineers, Properties Of Silicon Carbide (Gary L. Harris, Ed., 1995); Robert Webster, Gems: Their Sources, Descriptions and Identification 889-940 (5<sup>th</sup> Ed. 1994); W. Von Muench, "Silicon Carbide" in Landolt-Boemstein Numerical Data and Functional Relationships in Science and Technology, New Series, Group III, Vol. 17C, pp. 403-416 and 585-592 (M. Schultz And H. Weiss, Eds., 1984); Kurt Nassau, Shane F. McClure, Shane Elen & James E. Shigley, "Synthetic Moissanite: A New Diamond Substitute" Gems & Gemology, Winter 1997, 260-275; Kurt Nassau. "Moissanite: A New Synthetic Gemstone Material", Journal of Gemmology, 1999, 425-438; Kurt Nassau.
2. The Mohs Scale is a relative scale only, and quantitative comparisons of different gemstone materials cannot be made directly using the Mohs Scale. Moissanite gemstones are approximately one-half to one-third as hard as diamond.
3. With the exception of the "Moissanite: A New Synthetic Gemstone Material" and "Synthetic Moissanite: A New Diamond Substitute" articles, the physical properties of moissanite jewels set forth in the preceding table utilized materials from SiC crystals produced by parties other than Cree or us. These crystals had various sizes, colors and atomic structures that we believe made them unsuitable for use as a gemstone. We have conducted tests on the hardness, toughness and refractive index of samples of our jewels, and the results of these tests are consistent with the results reported in this table.

## Products and Product Development

*Moissanite Jewels.* We primarily sell near-colorless moissanite jewels cut in a variety of shapes including round, princess, radiant, oval, marquise, heart, cushion, and trillion shapes in sizes ranging from 3 to 10mm (approximately .09 to 3.2 carats). We have also distributed a limited quantity of green moissanite jewels to evaluate the market potential of colored moissanite. We may elect to offer, from time to time, additional cuts, sizes and colors of moissanite jewels.

*Amended and Restated Exclusive Supply Agreement with Cree.* On June 6, 1997, we entered into an Amended and Restated Exclusive Supply Agreement (Exclusive Supply Agreement) with Cree pursuant to which we have agreed to purchase from Cree at least 50%, by dollar volume, of our SiC crystal requirements for the production of gemstones in each calendar quarter during the term of the Agreement and Cree has agreed to supply this amount of crystals to us. Although we are obligated to purchase only 50% of our requirements from Cree, we do not believe there are currently any other alternative sources of

supply for SiC crystals suitable for gemstones. Therefore, at the present time, we are dependent on Cree as our sole source of supply of lab-grown SiC crystals. Under the Exclusive Supply Agreement, Cree has agreed not to sell SiC crystals for gemstone applications to anyone other than us. In August 2002, we agreed with Cree on a framework for purchases through September 2007. We are obligated to purchase a minimum quantity of usable material on a quarterly basis if Cree meets certain minimum quality levels. For each quarter during the period beginning January 2003 and ending September 2007, we have committed to purchase between \$525,000 and \$2,100,000 of raw material depending upon the quality of material received. If Cree's material quality is consistent with that received in 2002, which was better than the quality produced in previous years, future purchases are expected to be at the high end of this range. If we do not meet the minimum quarterly purchase commitment, we will be obligated to pay Cree an unused capacity charge for the idle growers. This charge will not be greater than \$110,000 in any given quarter. We purchased \$2.1 million of material during the fourth quarter of 2002 and \$5.5 million for all of 2002.

Under the terms of the Exclusive Supply Agreement, when our orders for SiC crystals exceed the capacity of the existing crystal growth systems, Cree may, at its sole discretion, require us to purchase the additional growth systems needed or fund the cost of the systems on its own and recoup its costs by incorporating the costs of the additional systems into the cost of the SiC crystals. If we fund the costs of the crystal growth systems, Cree must use 100% of the output from these systems for our needs, unless the excess production exceeds our then-current needs, in which case Cree may sell such SiC crystals to any of its other customers for any use other than jewel applications. The title to these crystal growth systems passes to Cree once we have fully depreciated them. In May 2000, we sold our crystal growth equipment to Cree for \$5 million. If Cree elects to fund the cost of additional growth systems on its own, we have no assurance that Cree will sell all of the output from these crystal growth systems to us or fill all of our orders, but Cree will be obligated to use the capacity to supply the quantities that we are required to purchase. Additionally, when Cree adds new crystal growth systems, we must commit to purchase all of the output of the new systems for at least six months. Any delay or reduction in the availability of SiC crystals could delay or limit our ability to deliver and sell our moissanite jewels, which would have a material adverse effect on our operating results.

The Exclusive Supply Agreement has an initial term through June 2005, which may be extended for an additional ten years by either party if an order threshold is met. We have met this order threshold and expect to extend the term of the Agreement.

The Exclusive Supply Agreement with Cree prohibits us, without Cree's consent, from entering into an exclusive marketing or distribution agreement with DeBeers or any party that Cree reasonably believes is affiliated with any of the following parties:

- DeBeers;
- the Central Selling Organization (the international cartel of diamond producers);
- any party whose primary business is the development, manufacture, marketing or sale of diamond gemstones; or
- any non-gemstone and non-jewelry industry competitor of Cree.

These provisions may limit our potentially available avenues of distribution and could prevent us from entering into certain potentially profitable transactions.

*Amended and Restated Development Agreement with Cree.* On July 1, 1998, we entered into an Amended and Restated Development Agreement (Development Agreement) with Cree in order to increase the yield of useable material in each SiC crystal manufactured by Cree for use in the production of moissanite jewels. In June 1998, Cree began to produce two-inch crystals, and in March 1999 Cree produced a three-inch crystal meeting mutually agreed upon volumes of useable material. A three-inch crystal can produce approximately twice as many moissanite jewels as a two-inch crystal with the same percentage yield of useable material. The Development Agreement established performance milestones,

primarily focused on yield improvement, and contemplated that we, along with Cree, would revise the performance milestones annually to provide both parties with more flexibility to pursue further color and yield improvements on both two-inch and three-inch diameter crystals. Our funding obligations under the Development Agreement were suspended from January 2001 through December 31, 2002, and terminated on December 31, 2002. We did not spend any funds under the Development Agreement with Cree in 2002 or 2001, and we spent \$1.4 million in 2000.

*Moissanite/Diamond Test Instrument.* Jewelry industry employees commonly rely on gemstone test instruments using thermal properties to distinguish diamond from other gemstones or diamond simulants such as synthetic cubic zirconia. Because the thermal properties of moissanite jewels are relatively close to those of diamond, such instruments have not reliably differentiated between diamond and moissanite jewels. Although gemologists trained in the physical properties of moissanite jewels may find a number of ways to distinguish moissanite from diamond, we believe that a moissanite/diamond test instrument must be available to jewelers and pawnbrokers to help prevent fraud.

Our moissanite/diamond test instrument, the Tester Model 590, which distinguishes moissanite jewels from diamonds in the colors and clarities most commonly sold by retail jewelers, is used in conjunction with existing thermal test instruments. A number of other companies have introduced devices that claim to distinguish moissanite jewels from diamonds at retail prices comparable to the Tester Model 590. We cannot be sure that a significant market will develop for our test instrument, that other competing devices will not be introduced or that other readily available means will not be developed to effectively distinguish moissanite jewels from diamond.

We have achieved our goal of assuring a reliable means for the jewelry industry to distinguish moissanite from diamond. Therefore, during 2002 we sold our entire tester inventory and licensed the related patents to a major customer, who will handle the future distribution of testers.

*Moissanite/Diamond Test Instrument Component.* Under an Instrument Agreement dated February 12, 1996, Cree is the sole supplier of a proprietary component used in our Tester Model 590. Under the Instrument Agreement, which expires in 2016, we are obligated to purchase all of our requirements for that component from Cree, and Cree must sell those components exclusively to us. In addition, we are obligated to pay Cree a royalty of 2.5% of net sales of all test instruments incorporating the Cree component. Although to date Cree has supplied a sufficient quantity of this component, if Cree were to fail to deliver this component, as required, we would not be able to manufacture additional test instruments. During 2002, we completed a sale of our entire test instrument inventory and do not expect to manufacture any additional test instruments.

## **Intellectual Property**

*Intellectual Property of the Company.* We have U.S. product and method patents for moissanite jewels, expiring in 2015, under which we have broad, exclusive rights to manufacture, use and sell moissanite jewels in the United States. We have pending applications for these same patents in a number of foreign jurisdictions. In addition, we have a U.S. apparatus and method patent for the Tester Model 590, expiring in 2016, that covers the physical structure and the testing techniques employed in the Tester Model 590. This patent gives us exclusive rights to manufacture and sell the Tester Model 590 in the United States. During 2002, we sold our entire test instrument inventory and do not expect to manufacture any additional test instruments. We also have other patents and patent applications pending related to certain methods of producing moissanite jewels and related technologies. In addition, we have certain trademarks and pending trademark applications that support the Charles & Colvard moissanite branding strategy. Although we intend to enforce our patent and trademark rights and vigorously prosecute all our patent applications, we cannot be sure that such actions will be successful, that any additional patents will be issued, that any issued patent will not be challenged, invalidated or circumvented or that any issued patent will have any competitive or commercial value.

Our success and our ability to compete successfully depends heavily upon our proprietary technology. In addition to our patents and pending patents, we rely on trade secret laws and employee, consultant and customer confidentiality agreements to protect certain aspects of our technology. We cannot be sure that we will be able to protect our proprietary technology from disclosure or that others will not develop technologies that are similar or superior to our technology.

While we have not received any claims that our products or processes infringe on the proprietary rights of third parties, we have no assurance that third parties will not assert such claims against us with respect to our existing and future products. Litigation to determine the validity of any third party's claims could result in significant expense and divert the efforts of our technical and management personnel, whether or not such litigation is determined in our favor. In the event of an adverse result of any such litigation, we could be required to expend significant resources to develop non-infringing technology or to obtain licenses for, and pay royalties on the use of, the technology subject to the litigation. We have no assurance that we would be successful in such development or that any such license would be available on commercially reasonable terms.

*Proprietary Technology of Cree.* Cree, our current source for development and supply of lab-grown SiC crystals, has developed or licensed numerous proprietary processes for the growth of SiC crystals for use in semiconductor, laser and other applications. Our founders recognized the potential use of SiC as a moissanite jewel and obtained the exclusive right to purchase SiC crystals from Cree for moissanite jewels and gemological instrumentation. We believe that Cree is currently the only producer of SiC crystals in sizes and qualities suitable for commercial production of moissanite jewels. Cree has significant proprietary rights related to its processes for growing SiC crystals, including an exclusive license on a patent for a process of growing large single crystals of SiC. This patent expires in years ranging from 2006 to 2011, depending on the country in which issued. In addition, Cree has a patent for a process for growing colorless SiC and other patents relating to certain aspects of its SiC crystal growth process. To further protect its proprietary SiC crystal growth process, Cree internally produces the crystal growth systems used to produce its SiC crystals. We have a royalty-free, perpetual license to use the technology covered by Cree's colorless SiC patent in moissanite jewel applications.

We depend heavily for our success on Cree's technology and ability to successfully produce SiC crystals suitable for the production of Charles & Colvard created moissanite.

## **Manufacturing**

The production of moissanite jewels includes the following steps:

- growing SiC crystals;
- designing shapes with proportions unique to moissanite jewels;
- cutting crystals into preforms that will yield jewels of an approximate carat weight and millimeter size;
- faceting preforms into jewels; and
- inspecting, sorting and grading faceted jewels.

*Growth of SiC Crystals.* Cree grows SiC crystals for us in accordance with the terms of the Exclusive Supply Agreement. Under the Exclusive Supply Agreement, Cree is required to sell to us all of the crystals grown in a specified number of crystal growth systems without charging us for such crystal growth systems. In addition, Cree must sell to us all the crystals grown in the crystal growth systems acquired by us from Cree, unless Cree's capacity exceeds our then-current needs, in which case Cree may sell SiC crystals produced by these systems to any of its other customers for any use other than moissanite jewel applications. Currently, we are not using 100% of our available crystal growth capacity at Cree. We may increase our production capacity from Cree upon appropriate notice to Cree. If we order a quantity of crystals that will require Cree to acquire additional crystal growth systems, Cree may elect, in its sole discretion, to have us purchase the additional growth systems that will be needed or to



fund the costs on its own and recoup its costs by incorporating the costs of the systems into the cost of the SiC crystals sold to us.

We routinely evaluate the yield and quality of saleable moissanite jewels from SiC crystals being produced by Cree. The yield of saleable moissanite jewels from each crystal is the most significant factor affecting the volume and cost of moissanite jewels available for sale. Yield of saleable moissanite jewels is dependent on the quality of the crystals. Improvements in crystal quality increase the volume, or yield, of moissanite jewels from a crystal and decrease the cost of each moissanite jewel produced.

From mid-1999 to mid-2000, Cree showed marked improvement in SiC crystal quality, resulting in an increased yield of saleable jewels from both two-inch and three-inch diameter crystals that far exceeded our expectations. As we increased purchases from Cree in late 2001 and into 2002, the quality of the crystal and our yields of jewels improved further.

*Designing Shapes with Proportions Unique to Moissanite Jewels.* Maximizing the light reflected from a faceted moissanite jewel requires the design of shapes with unique proportions and angles. We create proprietary designs, using computer modeling, to display the maximum light reflection based on the optical properties (i.e., refractive index, dispersion and luster) of moissanite jewels. The first shape we developed applying these computer models was a unique version of the round brilliant cut. Most recently, we have designed oval, marquise, pear and heart fancy shapes that eliminate dark areas commonly found in other gemstones with similar cuts. We believe these proprietary designs are the basis for the superior optical performance quality observed in faceted moissanite jewels.

*Preforms.* We divide all SiC crystals through slicing and dicing processes into preforms in sizes suitable for faceting into predetermined calibrated-size moissanite jewels. We use readily available automated and computerized equipment along with proprietary technology developed in-house to slice and dice crystals into preforms. We believe that this equipment will enable us to maximize the number of preforms we can obtain from each SiC crystal.

*Faceting Moissanite Jewels.* The faceting of preforms is a critical stage in obtaining quality jewels. The techniques and skills used in faceting moissanite jewels differ somewhat from those used in faceting diamonds and other gemstones. We currently outsource the faceting of our moissanite jewels, other than faceting for research and product development purposes, which we conduct internally. We have two suppliers of volume faceting services, which are both located in Asia, and we have been satisfied with the capabilities and performance of these suppliers. During 2003, we intend to continue to outsource faceting services to these existing suppliers, and we will depend on their ability to provide an adequate quantity of quality faceted moissanite jewels. We cannot be sure that they will be able to continue to produce our quality specifications for faceting and meet our quantity and time requirements.

We have entered into a multi-year agreement with our primary supplier of faceting services, John M. Bachman, Inc. (JMB). Pursuant to this agreement and related amendments, we advanced \$380,000 to JMB to expand the production facilities of its affiliate which facets our moissanite jewel preforms. This advance was completely repaid in 2001. We have a right of first refusal to acquire any excess gemstone cutting capacity from JMB's affiliate and any equity securities offered by JMB or its affiliate. Our agreement with JMB expires December 31, 2004; however, we have the right to terminate the agreement at any time upon 90 days written notice. Under this agreement, JMB has agreed to grant, and to cause its affiliates to grant, to us a perpetual, non-exclusive, royalty-free license to use any inventions or proprietary information developed by or for JMB or its affiliates that is useful in the faceting of moissanite jewels. In April 2002, we purchased from JMB 200 used custom faceting machines for \$60,000, in order to ensure that the machines are available in the event we have increased faceting requirements. If we desire to sell the machines to a third party, JMB has the right of first refusal to purchase these machines from us until December 31, 2003. JMB has agreed to store and maintain these machines and to repurchase the machines from us if higher faceting levels are required. We anticipate

reaching those increased monthly faceting levels within the next year and expect JMB to begin repurchasing the machines at a price of \$300 per machine.

*Inspection, Sorting and Grading.* Once faceted moissanite jewels are returned to us, we inspect, sort and grade them. During this stage, specially trained personnel individually examine and grade each moissanite jewel against certain quality parameters. In addition, we process a sample of each batch through an image analyzer for exacting quality control. This phase of manufacturing is relatively labor-intensive and requires skills not readily available in the general work force. In the future, we may elect to outsource certain portions of this stage of the manufacturing process to an independent third party. We will require third parties to which we outsource these processes to adhere to our rigorous quality control and monitoring standards. We have no assurance that we will be able to hire or retain sufficient numbers of appropriately skilled personnel for this phase of manufacturing or find and enter into acceptable agreements with third party vendors or that such vendors will be able to provide accurate inspection, sorting and grading services on a timely basis.

## **Marketing and Distribution**

### *Marketing*

*Domestic.* Beginning late in the first quarter of 2002, we executed a global marketing strategy focusing on advertising to our target consumer in the United States. In mid-fourth quarter 2002, we conducted a two-phase marketing research project aimed at further defining our primary U.S. target market and canvassing the opinions and buying attitudes of women who purchase jewelry. We re-defined this primary market to consist of self-purchasing, working women between the ages of 35 and 55, with an annual income of at least \$45,000. We focused on consumer print advertising in high-end fashion magazines. Using a new advertising agency and a new consumer image ad campaign, we will advertise in 2003 with ads placed in fashion publications with United States and Asian distribution.

We believe our 2002 marketing and advertising continued to strengthen the image and reputation of our brand, Charles & Colvard, and our product, moissanite. In late fourth quarter 2002, we honed our advertising message to the jewelry trade to include the business opportunity (new customers, product differentiation, higher profit margins, and new sources of revenue) that moissanite jewelry can represent to retailers and manufacturers. We continued to support our existing customers with marketing collateral, advertising, and public relations efforts. We believe that this marketing and advertising program resulted in a consistent and positive message for moissanite and set the stage for our future public relations and advertising efforts, positioning moissanite as a unique and desirable jewel.

Public relations activities are an integral and important component of our marketing strategy. Our key public relations activities in 2002 included the following:

- Continuing the development and expansion of relationships with various celebrities and television broadcasts, encouraging celebrities to wear jewelry featuring Charles & Colvard created moissanite jewels both on-and-off the camera. For example, Charles & Colvard created moissanite jewelry was worn on a television episode of "The West Wing."
- Generating coverage in both fashion and general national press.
- Developing news stories to be carried on local television news programs.

We believe the value of celebrities wearing moissanite lies in their ability to establish fashion trends, influence, create and popularize styles that ultimately result in increasing consumer awareness of products and brands, and drive consumer purchases.

Our press coverage during 2002 included television stories, newspaper articles and magazine articles (consumer, jewelry trade, and marketing trade). For example, moissanite jewels were featured on Lifetime and numerous television affiliates. Moissanite was a sub-story line in the popular television

series "CSI: Crime Scene Investigation." National Public Radio ran a segment featuring moissanite on its show, "The State of Things." Newspaper articles about moissanite appeared in such publications as The Chicago Sun Times, USA Today, South Florida Sun-Sentinel, Charlotte Observer, Raleigh News & Observer, Palm Beach Post, Daytona Beach News Journal, Vancouver Province, and other newspapers. The corresponding gross consumer impressions in the United States from coverage in 2002 exceeded 69.0 million, an increase of over 23% as compared to 2001.

Our domestic goal for 2003 is to create more consumer impressions for Charles & Colvard created moissanite than were achieved in 2002 without significantly increasing the public relations budget. We will focus primarily on public relations programs specifically targeted to reach our primary market, the self-purchasing, independent decision-making, working woman, between the ages of 35 and 55, with an annual income of at least \$45,000 who takes pride in her achievements, is fashion conscious, influenced by style, and aspires to enrich her lifestyle. We will aggressively pursue greater editorial coverage in fashion publications, national news media, and event opportunities and product placement with noted achievers, celebrities, and people of influence. A new public relations agency, based in New York with multiple United States and international offices, was retained in early 2003.

We have also implemented focused advertising using a new consumer lifestyle image advertisement which will debut in the May 2003 fashion publications of Elle, Vogue, and InStyle. This campaign will continue throughout the year.

In 2003, Charles & Colvard will continue to advertise in jewelry trade publications such as National Jeweler and JCK. Our advertising message will focus on the business opportunities that retailers and manufacturers can enjoy when offering jewelry set with Charles & Colvard created moissanite.

*International.* Internationally, we work with our distributors to develop advertising and marketing campaigns targeting specific geographic regions, building on the marketing themes developed in the United States. Pursuant to our international distribution agreements, we provide incentives to our customers to use advertising that supports the brand image for moissanite created by Charles & Colvard. We may provide other advertising and promotion incentives in international markets to increase jewelry trade and consumer awareness.

*Trade Shows.* Charles & Colvard will continue to participate in jewelry trade shows as an exhibitor. With a new exhibition booth, we exhibited in the Manufacturing Jewelers and Suppliers of America (MJSA) Expo in New York and will debut a new international booth at the Basel 2003 Worldwide Watch and Jewellery Show in Switzerland. In addition, we participated in the VicenzaOro Show in Italy, the JCK Show in Orlando and the Jewelers of America Show in New York. We also plan to participate in the upcoming JCK Las Vegas and Hong Kong Jewellery shows and a host of other international jewelry trade shows.

#### *Distribution*

*Domestic.* We believe that moissanite is best sold through retail channels in which the retailer has an adequate opportunity to effectively educate the consumer on moissanite's unique qualities.

We began shipping moissanite to our authorized retail jewelers in Atlanta and Miami/Ft. Lauderdale during the second quarter of 1998, and in July 1998 we launched limited consumer-focused advertising and promotion activities in those areas. During the second half of 1998, and through the first half of 1999, we limited our efforts to expand the distribution of moissanite jewels as a result of insufficient product availability and our lack of confidence in the quality of the SiC crystals we were receiving. As our confidence in our supply of moissanite increased, we attempted to expand the number of retailers carrying moissanite during the second half of 1999. However, we were not able to increase the number of these jewelers necessary to achieve our business objectives.

By the end of 1999, 237 domestic independent jewelers were carrying Charles & Colvard created moissanite. Sales in 1999 to our independent jewelers totaled approximately \$4.1 million. In order to more rapidly expand the distribution of moissanite, in May 2000 we transitioned from selling moissanite jewels directly to independent retail jewelers to allowing independent retail jewelers to access loose moissanite jewels and moissanite jewelry through respected, established jewelry distributors. We have entered into distribution agreements for North America with two large distributors, Stuller Settings, Inc. (Stuller) and Rio Grande, and certain jewelry manufacturers. Established in 1970, Stuller is one of the world's largest suppliers of jewelry-related products, providing over 100,000 different items to the jewelry industry. Through its innovative manufacturing and distribution techniques, Stuller provides timely delivery of its products to over 40,000 retail jewelry customers, primarily in North America. Stuller's products include findings (jewelry ready to have a gemstone mounted in it), finished jewelry, loose diamonds, colored gemstones, tools and supplies and metals. Rio Grande was started over 50 years ago and is a respected industry leader in jewelry manufacture and distribution. Rio Grande carries over 24,000 products for the jewelry trade, and the Rio Grande Gems & Findings catalog is the largest catalog of its type in the world. Rio Grande's customer base consists primarily of manufacturers of jewelry from independent jewelers that create custom jewelry to the largest manufacturers of jewelry in North America.

Additionally, we have entered into arrangements with several jewelry manufacturers that design and manufacture lines of jewelry containing moissanite jewels. We have granted these jewelry manufacturers non-exclusive rights to sell their lines of jewelry to independent retail jewelers as well as jewelry store chains and department stores that meet certain predetermined criteria. Jewelry retailers have access to loose moissanite jewels from Stuller and Rio Grande and to jewelry containing moissanite jewels from Stuller and these jewelry manufacturers.

We believe that moissanite jewels provide retailers with an opportunity to earn a profit margin comparing favorably to other jewelry products and allow the retailer to distinguish our product line from other jewelers in the highly competitive retail jewelry market. We also believe these margins create incentives for retailers to maximize their sales and promotional efforts, resulting in additional consumer demand for our moissanite jewels.

We believe that distributing moissanite jewels through Stuller and Rio Grande as well as certain jewelry manufacturers and designers provides retail jewelers with maximum flexibility to develop their businesses with moissanite. Those jewelers that prefer to create their own jewelry to meet the needs of their individual market areas will be able to purchase the loose jewels through Stuller or Rio Grande, with which many of them already have relationships. Those jewelers that wish to purchase finished jewelry for sale in their stores may do so either through Stuller or any of the jewelry manufacturers working with moissanite.

The quality, design and workmanship of the settings chosen by Stuller, manufacturers, designers and retailers affects consumer perception and acceptance of our products, and our control over these elements is limited to our pricing and licensing policies. Beyond that, we believe that the success of Charles & Colvard created moissanite will be determined by the power and the precision of our brand-building program. We continue to evaluate the most appropriate structure for distribution in North America and may, in certain circumstances, enter into additional distribution arrangements, including arrangements with selected department stores and distribution channels such as moissanite retail stores, catalog sales or Internet sales.

As our retail customer base grows and we gain distribution with prominent regional and national outlets, we are seeing the benefit of our distribution model. By combining the manufacturers' strength of jewelry design and program execution with our beautiful jewel we believe that we can provide a compelling revenue pipeline to retailers. Several "best-of-class" manufacturers have successfully introduced moissanite with multi-door chains. In 2002, we supported our partners efforts in expanding and

developing distribution with several notable retailers. These include but are not limited to ShopNBC, Shop At Home, Landau, Army Air Force Exchange System (AAFES), and Morgan Jewelers.

Our success on television shopping channels demonstrates that the consumer understands the value and beauty of our jewel. As a result of our success, we have seen increased interest from key traditional jewelry retailers. We believe that we can achieve success as we introduce this jewel into the traditional jewelry channels of distribution.

We will also continue to seek other “non-traditional” channels such as catalog, Internet, department store, specialty stores and mass retail. The growing consumer acceptance of moissanite would allow Charles and Colvard to expand into these various channels. As we expand, we will manage the issues surrounding the multiple channel distribution method with the need for a consistent brand-building program.

*International.* We currently distribute moissanite jewels in substantially all of Western Europe and certain territories in Southeast Asia. We have approximately forty international distributors and intend to increase this number. All sales to international customers are denominated in U.S. dollars. Generally, we require full payment before merchandise is shipped to these customers. However, once a customer has established a purchase history, we may grant net 30 day payment terms to our international customers. Export sales aggregated approximately \$2.3 million, \$2.1 million, and \$4.6 million in 2002, 2001, and 2000, respectively.

Similar to the US, we have begun distributing through TV retailers internationally. Specifically in the UK, we have developed a partnership with a leading manufacturer and with Ideal World Shopping channel. We believe that we are positioned for future growth in this distribution channel.

We have also continued our investment in the Asian market. Our Hong Kong office is working on obtaining business relationships that will expand our distribution. A multi-pronged distribution approach is positioning Charles and Colvard for greater consumer and jewelry industry awareness.

## **Competition**

*Moissanite jewels.* Gemstone materials can be grouped into three types:

- natural gemstone, which is found in nature;
- synthetic gemstone, which has the same chemical composition and characteristics of natural gemstone but is created in a lab; and
- simulated or substitute material, which is similar in appearance to natural gemstone but does not have the same chemical composition.

Our moissanite jewel, which is positioned as a unique new jewel, may compete with fine gemstones such as ruby, sapphire, emerald and tanzanite as well as with natural and treated diamonds and existing synthetic gemstones such as synthetic cubic zirconia. We may also face competition from additional gemstones such as synthetic diamonds, synthetic diamond films and other sources of synthetic moissanite not presently available in qualities, sizes and volumes suitable for use as gemstones. Many of the suppliers of diamonds and other fine gemstones, as well as the suppliers of synthetic gemstones, have substantially greater financial, technical, manufacturing and marketing resources and greater access to distribution channels than we do.

The worldwide market for large, uncut high-quality diamonds is significantly consolidated through the Central Selling Organization, a cartel led by DeBeers. This cartel has a major impact on the worldwide supply and pricing of these diamonds at both the wholesale and retail levels. Although we believe that our jewels appeal primarily to the consumer who would not otherwise purchase comparable diamond

jewelry, diamond producers may undertake additional marketing or other activities designed to protect the diamond jewelry market against sales erosion from consumer acceptance of moissanite jewels.

We may also face competition from treated diamonds. Treated diamonds, which are natural diamonds with imperfections or flaws that have been altered in some manner to enhance their appearance, are presently available in the jewelry industry and are generally less expensive than diamonds of similar size, cut and color which have not been altered. Synthetic diamond in gemstones or film form may also become available in the marketplace and compete with our jewels. Synthetic diamonds are regularly produced for industrial applications, but we believe that gemstone-quality synthetic diamonds presently cannot be produced at prices competitive with those currently offered for our near-colorless moissanite jewels. The primary producers of these synthetic diamonds are DeBeers, Sumitomo and GE. There are also a number of Russian producers of synthetic diamonds for industrial uses. In addition, development-stage companies, such as the Gemesis Corporation headquartered in Florida, are working to develop cost-effective means of producing gem quality synthetic diamonds. Synthetic diamond films can be grown at commercially viable prices in thicknesses that can be applied to other surfaces, but these films adhere well to only a few minerals such as diamond, silicon and SiC (moissanite). There could, however, be technological advances that would enable competitively priced synthetic diamond in gemstone or film form to be offered.

Although we believe that our products have a proprietary position, we could face competition from other companies that develop competing SiC technologies. Some of these technologies could be developed by producers of SiC used for other industrial applications. Manufacturers of industrial SiC products include The Carborundum Corporation, for abrasive uses, and Cree, Siemens AG, Okmetic, Inc., ABB and Northrup Grumman Corporation, for semiconductor uses. We believe that Cree is currently the only supplier of SiC crystals in colors, sizes and volumes suitable for gemstone applications, and we believe that the patents owned or pending by Cree or us provide substantial technological, legal and cost barriers to other companies' development of near-colorless moissanite jewels. It is possible, however, that these or other producers of SiC could develop SiC crystals suitable for gemstone applications and produce moissanite jewels until we could obtain judicial enforcement of our patent rights.

We may also face competition from synthetic cubic zirconia, the principal existing diamond simulant and, to a lesser degree, other synthetic gemstones. The largest producer of synthetic cubic zirconia gemstones is Signity. In addition, there are a significant number of other producers of jewelry containing synthetic gemstones. Three of the largest retailers of synthetic cubic zirconia jewelry in the United States are QVC, Home Shopping Network and Wal-Mart. Some of the major retailers of synthetic cubic zirconia, including QVC, have captive manufacturing divisions that produce synthetic cubic zirconia jewelry. These producers and sellers may see their markets being eroded by the introduction of our moissanite jewels. We believe that price is the primary basis upon which these products will compete with our moissanite jewels.

We intend to compete primarily on the basis that the unique qualities of our moissanite jewels are distinct from all other jewels based on their fire, brilliance, luster and durability. In addition, we believe that the Charles & Colvard created moissanite brand, which is being developed pursuant to our strategic global marketing program, can create a long-term competitive advantage for our products. Additionally, we believe that moissanite jewels have a significant cost advantage over other fine gemstones, especially in the one-carat size and larger. Our competitive success depends on the following:

- the willingness and ability of our jewelry distributors and other jewelry suppliers, manufacturers and designers to market and promote moissanite jewels to the retail jewelry trade;
- the willingness of distributors, retailers and others in the channel of distribution to purchase loose moissanite jewels and the willingness of manufacturers, designers and retail jewelers to undertake setting of the loose jewels;
- the ability of manufacturers, designers and retail jewelers to select jewelry settings that encourage consumer acceptance of and demand for our jewels;

- the ability of jewelry manufacturers and retail jewelers to set loose moissanite jewels in jewelry with high quality workmanship; and
- the ability of retail jewelers to effectively market and sell moissanite jewelry to consumers.

### **Government Regulation**

Our products are subject to regulation by the Federal Trade Commission (FTC). The FTC has issued regulations and guidelines governing the marketing of synthetic gemstones and other gemstones similar to diamond that require such gemstones to be clearly identified in any promotional or marketing materials. While we intend to comply fully with all FTC regulations, we cannot be sure that the FTC or a competitor will not challenge our promotional or marketing activities. Such a challenge could result in significant expense and divert the efforts of our management, whether or not such challenge is resolved in our favor. If our actions were found to be in violation of FTC regulations, we could be forced to suspend marketing and sales of our products and could incur significant expenses in developing new marketing strategies and materials that would not violate FTC regulations. We cannot be sure that we would be successful in developing new marketing strategies and materials that would comply with FTC regulations or that such strategies, once developed, would allow us to market our products profitably.

### **Employees**

At February 28, 2003, we had 41 employees. We believe that our future prospects will depend, in part, on our ability to retain our current employees and to obtain additional management, marketing, sales, manufacturing, scientific and technical personnel. Competition for such personnel is substantial, and the number of persons with relevant experience is limited. None of our employees is represented by a labor union. We believe that our employee relations are good.

### **Business Risks**

In addition to the other information in this Form 10-K, you should carefully consider the following important factors that in some cases have affected, and in the future could affect, our actual performance and results and could cause our actual results of operations to differ materially from those expressed in any of our forward-looking statements.

*Our business operations could be adversely affected if we do not manage our growth effectively.* Our strategy will require us to achieve rapid growth while limiting expenditures and motivating our employee base. Periods of rapid growth would place a significant strain on our personnel and other resources. During 2000, the Company shifted its distribution and advertising strategy to place more emphasis on marketing through jewelry distributors and to control advertising and overhead expenditures. We will continue to be required to manage multiple relationships with various customers and other third parties. If we are unable to manage growth effectively, our business, financial condition and results of operations would be materially adversely affected.

*We have a limited operating history which may impact our ability to achieve market acceptance of our products and our ability to produce our products.* We incorporated in June 1995 and were in the developmental stage through June 30, 1998. We are in the process of commercializing moissanite jewels, building consumer brand awareness and growing distribution channels for our jewels. The timing or existence of any significantly increased revenues is dependent on market acceptance of moissanite jewels and increasing distribution and sales. Our business may also be subject to risks inherent in rapid increases in sales and production levels. Likewise, our products are subject to risks inherent in the development and marketing of new products, including unforeseen design, manufacturing or other problems or failure to develop market acceptance. Failure by us to expand distribution and achieve market acceptance of our products or to develop the ability to produce our products in higher quantities and qualities would have a material adverse effect on our business, operating results and financial condition. Accordingly, our prospects must be considered in light of the risks and difficulties frequently

encountered by companies in their early stage of development, particularly technology-based companies, operating in the early stages of manufacturing and distributing unproven products.

*Our future financial performance depends upon continued growth and consumer acceptance of our products.* We believe that many retail jewelers and most consumers are not generally aware of the existence and attributes of moissanite jewels. The market for moissanite jewels among retail jewelers and consumers is in the early stages of development, as we shipped approximately 98,000 carats during the year ended December 31, 2002. The degree of future market acceptance and demand are subject to a significant amount of uncertainty. Our future financial performance will depend upon greater consumer acceptance of the Company's moissanite jewels as distinct from all other jewels based on their fire, brilliance, luster, durability and rarity. In addition, consumer acceptance may be impacted by retail jewelers' and jewelry manufacturers' acceptance of moissanite jewels. We market loose jewels which jewelry distributors, manufacturers and retailers set in jewelry and in turn distribute or sell to consumers. The quality, design and workmanship of the jewelry settings selected by retail jewelers, which is not within our control, could impact our consumers' perception and acceptance of our jewels. Thus, our future financial performance may be impacted by:

- the willingness and ability of our jewelry distributors and other jewelry suppliers, manufacturers and designers to market and promote moissanite jewels to the retail jewelry trade;
- the willingness of distributors, retailers and others in the channel of distribution to purchase loose moissanite jewels and the willingness of manufacturers, designers and retail jewelers to undertake setting of the loose jewels;
- the ability of manufacturers, designers and retail jewelers to select jewelry settings that encourage consumer acceptance of and demand for our jewels;
- the ability of jewelry manufacturers and retail jewelers to set loose moissanite jewels in jewelry with high quality workmanship; and
- the ability of retail jewelers to effectively market and sell moissanite jewelry to consumers.

If our products do not receive greater market acceptance, our business, operating results and financial condition would be materially adversely affected.

*We are substantially dependent on the distribution of our jewels in North America through K&G Creations (a jewelry manufacturer and distributor) and Stuller Settings, Inc. as well as a limited number of other distributors and jewelry manufacturers.* In March 2000, we entered into distribution agreements with two of the largest national wholesale distributors, Stuller Settings, Inc. and Rio Grande, for distribution of moissanite jewels throughout the entire North American market. In 2001 and 2002, we entered into sales agreements with a limited number of jewelry manufacturers. There is no assurance, however, that our distribution arrangements with Stuller and our sales agreements with manufacturers, such as K&G Creations, will sufficiently increase sales in North America. We anticipate that the majority of the moissanite jewels that we sell in North America will be distributed through K&G Creations and Stuller as well as our other manufacturers, and therefore, we are substantially dependent upon these companies for distribution of moissanite jewels in North America.

*A prolonged economic downturn and the uncertainties caused by war and terrorism could adversely affect our operations.* Purchases of jewelry, including purchases of our products, may be affected by any prolonged, negative trends in the general economy that adversely affect consumer spending. Any reduction in consumer confidence or disposable income may adversely affect jewelry companies, in general, and our Company, in particular, more significantly than companies that rely less on discretionary consumer spending. Further, the potential effect that war and possible additional terrorist attacks may have on consumers and the economies of the United States, as well as other countries in which our products are sold, is unpredictable and uncertain. Any significant reduction in demand for our products



would have a material adverse affect on our results of operations and could, if it continued, have a material adverse affect on our financial condition.

*We are subject to certain risks due to our international distribution channels and vendors.* Charles & Colvard created moissanite jewels are currently being distributed in substantially all of Western Europe and certain territories in Southeast Asia. We currently have a total of approximately 40 international distributors. Our long-term strategy is to expand the number of international markets for our products. In addition, we expect to continue to use certain companies based outside the United States to facet our moissanite jewels. Due to our reliance on development of foreign markets and use of foreign vendors, we are subject to the risks of conducting business outside of the United States. These risks include the following:

- the adverse effects on United States-based companies operating in foreign markets that might result from war, terrorism, changes in diplomatic trade or business relationships or other political, social, religious or economic instability;
- unexpected changes in, or impositions of, legislative or regulatory requirements;
- delays resulting from difficulty in obtaining export licenses;
- tariffs and other trade barriers and restrictions; and
- the burdens of complying with a variety of foreign laws and other factors beyond our control.

Additionally, while all foreign transactions are denominated in U.S. dollars, foreign currency fluctuations could impact demand for our products or the ability of our foreign suppliers to continue to perform. Further, some of these distributors operate relatively small businesses and may not have the financial stability to assure their continuing presence in their markets. There can be no assurance that the foregoing factors will not adversely affect our operations in the future or require us to modify our anticipated business practices.

*We currently depend upon a single source for the supply of SiC crystals.* We currently depend on a single source, Cree Inc. (Cree), for the supply of SiC crystals. Cree has certain proprietary rights relating to its process for growing large single crystals of SiC and its process for growing colorless SiC crystals. Under our Exclusive Supply Agreement with Cree, we are obligated to buy from Cree, and Cree is obligated to sell to us, 50%, by dollar volume, of our requirements for SiC material for the production of gemstones in each calendar quarter. Although we are only required to purchase 50% of our SiC requirements from Cree, we do not currently believe that any other SiC producer could readily supply crystals in the qualities, sizes and volumes needed for our products. Therefore, at the present time, we are wholly dependent on Cree as our sole source for our principal raw material.

While Cree has improved its production processes and is currently producing SiC crystals sufficient to meet our requirements, we experienced difficulties in the past in obtaining crystals from Cree in the quality, sizes and volumes that we desired. We from time to time enter into purchase agreements with Cree with respect to the specific timing, pricing and other terms of future delivery of SiC crystals and our purchase commitments. There can be no assurance that Cree will be able to continue to produce and supply us with raw materials of sufficient quality, sizes and volumes nor that we will negotiate purchase commitments that enable us to manage our inventories and raw material costs effectively.

*We rely upon our ability to protect our intellectual property.* We have United States product and method patents for moissanite jewels under which we believe that we have broad, exclusive rights to manufacture, use and sell moissanite jewels in the United States. We have applications pending in a number of foreign jurisdictions for these same patents. We believe that these patents create substantial technological barriers to our potential competitors. We also have other patents and patent applications pending related to certain methods of producing moissanite jewels and related technologies. There can be no assurance that any other patents will be granted or that any issued patent will have any commercial or competitive value.

At the present time, we are also dependent on Cree's technology for the production of SiC crystals. Cree is exclusively licensed to use a patent concerning a process for growing large single crystals of SiC, has certain patents of its own relating to growth of large single crystals of SiC and has a patent for a process for growing colorless SiC crystals.

There can be no assurance that any patents issued to or licensed by or to us or Cree will provide any significant commercial protection to us or Cree, that we or Cree will have sufficient resources to prosecute our respective patents or that any patents will be upheld by a court should we, Cree or Cree's licensor seek to enforce our respective rights against an infringer. The existence of valid patents does not prevent other companies from independently developing competing technologies. Existing producers of SiC or others may refine existing processes for growing SiC crystals or develop new technologies for growing large single crystals of SiC or colorless SiC crystals in a manner that does not infringe patents owned or licensed by or to us or Cree. In addition, existing producers of SiC, existing producers of other synthetic or natural gemstones or other parties may develop new technologies for producing moissanite jewels in a manner that does not infringe patents owned or licensed by or to us or Cree.

As a result of the foregoing factors, existing and potential competitors may be able to develop products that are competitive with or superior to our products, and such competition could have a material adverse effect on our business, operating results and financial condition.

*Our success depends upon our ability to identify, reach agreements with and work successfully with third parties.* In addition to our current dependence on Cree and on third party distribution channels, our prospects depend upon our ability to identify, reach agreements with and work successfully with other third parties. In particular, we rely on third parties to facet our jewels. Faceting moissanite jewels requires different techniques than faceting diamond and other gemstones. There can be no assurance that we can maintain our relationships with our faceting vendors on terms satisfactory to us or that faceting vendors will continue to be able to provide faceting services in the quality and quantities required by us or that we will be able to find suitable replacements if we are unable to maintain such relationships. Our failure to achieve any of the above would have a material adverse effect on our business, operating results and financial condition.

*Governmental regulation and oversight might adversely impact our operations.* We are subject to governmental regulations in the manufacture and sale of moissanite jewels. In particular, the Federal Trade Commission has the power to restrict the offer and sale of products that could deceive or have the tendency or effect of misleading or deceiving purchasers or prospective purchasers with regard to the type, kind, quality, character, origin or other characteristics of a diamond. We may be under close scrutiny both by governmental agencies and by competitors in the gemstone industry, any of which may challenge our promotion and marketing of our moissanite jewel products. If our production or marketing of moissanite jewels is challenged by governmental agencies or competitors, or if regulations are issued that restrict our ability to produce and market our products, our business, operating results and financial condition could be materially adversely affected.

*Our reputation amongst jewelers and consumers could be damaged if low-quality gemstones or synthetics are marketed as moissanite.* It is possible that low-quality gemstones or other synthetics could be marketed as moissanite. The sale of low-quality products as moissanite could damage our ability to foster the perception of moissanite as a unique jewel that compares favorably to other fine gemstones like diamond, ruby and emerald. This could damage our reputation among retail jewelers and consumers and result in a loss of consumer confidence in our products. The introduction of low-quality imitation moissanite jewels and our inability to limit the adverse effects thereof could have a material adverse effect on our business, operating results and financial condition.

*We do not expect to pay common stock dividends.* We have not paid cash dividends in the past and do not expect to pay cash dividends on our common stock for the foreseeable future. In determining whether

to pay dividends, our Board of Directors will consider many factors, including our earnings, capital requirements and financial condition.

*Some anti-takeover provisions of our charter documents, agreements and plans may delay or prevent a takeover of our Company.* A number of provisions of our articles of incorporation and bylaws impact matters of corporate governance and the rights of shareholders. Certain of these provisions may be deemed to have an anti-takeover effect and may delay or prevent takeover attempts not first approved by the Board of Directors (including takeovers that certain shareholders may deem to be in their best interests). These provisions also could delay or frustrate the removal of incumbent directors or the assumption of control by shareholders. We believe that these provisions are appropriate to protect our interests and all of our shareholders.

Under the terms of the Exclusive Supply Agreement, we are prohibited from entering into an exclusive marketing or distribution agreement with DeBeers or its affiliates or the Central Selling Organization (the international cartel of diamond producers) or any party whose primary business is the development, manufacture, marketing or sale of diamond gemstones or any non-gemstone and non-jewelry industry competitor of Cree. The Agreement also prohibits us from entering into certain merger, acquisition, sale of assets or similar transactions with a prohibited party. These provisions of the Exclusive Supply Agreement could limit the price that third parties might be willing to pay in the future for some or all of the shares of our common stock. In addition, this agreement could prevent us from entering into certain potentially profitable transactions with such prohibited parties.

On February 21, 1999, we adopted a Shareholder Rights Plan under which all shareholders of record as of March 8, 1999, received rights to purchase shares of a new series of Preferred Stock. Each share of common stock issued after March 8, 1999 has received the same rights.

The Rights Plan is designed to enable all of our shareholders to realize the full value of their investment and to provide for fair and equal treatment for all shareholders in the event that an unsolicited attempt is made to acquire us. The adoption of the Rights Plan is intended as a means to guard against abusive takeover tactics and is not in response to any particular proposal. The Rights, which expire in 2009, will be exercisable only if a person or group acquires 20% or more of our common stock or announces a tender offer for 20% or more of the common stock. If a person or group acquires 20% or more of our common stock, all shareholders except the purchaser will be entitled to acquire our common stock at a 50% discount. The effect will be to discourage acquisitions of more than 20% of our common stock without negotiations with the Board.

The Rights will trade with our common stock, unless and until they are separated upon the occurrence of certain future events. Our Board of Directors may redeem the Rights prior to the expiration of a specified period following the acquisition of more than 20% of our common stock.

#### **Available Information**

Our internet website is [www.moissanite.com](http://www.moissanite.com). We make available free of charge through our website our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission.

**ITEM 2. PROPERTIES**

We lease approximately 12,700 square feet of mixed-use space (general office, light manufacturing and laboratory) in the Research Triangle Park area of North Carolina from an unaffiliated third party. This lease expires in August 2004. This space houses all United States personnel, including our executive offices, sales offices, administrative personnel and production facilities. We believe that comparable mixed-use space could be obtained from other parties on terms substantially the same or more favorable than the current lease. Our management considers this space to be sufficient for our foreseeable needs over the next 12 months. However, continued growth will cause the need for a larger facility. Management is therefore exploring options to obtain additional space.

Our Hong Kong subsidiary leases approximately 1,000 square feet of office space in Hong Kong from an unaffiliated third party. This lease expires in January 2004. Our Hong Kong subsidiary also leases 686 square feet of jewelry display space in Shenzhen, China. The China lease expires in September 2005.

**ITEM 3. LEGAL PROCEEDINGS**

We are not a party to any material legal proceedings.

**ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

Not Applicable.

**Part II****ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS**

Our common stock is traded on the NASDAQ National Market under the symbol "CTHR." The following table presents, for the periods indicated, the high and low sales prices of our common stock, as reported by the NASDAQ National Market. As of February 28, 2003 there were 237 shareholders of record of the common stock.

	2002		2001	
	High	Low	High	Low
First Quarter	\$ 5.36	\$ 1.54	\$ 1.68	\$ 0.81
Second Quarter	6.09	3.70	2.05	0.83
Third Quarter	4.81	3.07	1.55	0.81
Fourth Quarter	6.52	3.66	1.56	0.80

We have never paid dividends on our capital stock. We intend to retain earnings, if any, for use in our business and do not anticipate paying any cash dividends in the foreseeable future.

**ITEM 6. SELECTED FINANCIAL DATA**

The following selected statement of operations data for the years ended December 31, 2002, 2001 and 2000, and the selected balance sheet data at December 31, 2002 and 2001 have been derived from, and are qualified by reference to, our financial statements included elsewhere in this report which have been audited by Deloitte & Touche LLP, independent auditors. The selected statement of operations data for the years ended December 31, 1999 and 1998 and the selected balance sheet data at December 31, 2000, 1999 and 1998 have been derived from audited financial statements not included herein. The selected financial data set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Financial Statements and Notes thereto included elsewhere in this report.

## CHARLES &amp; COLVARD, LTD. (FORMERLY C3, INC.)

	Year Ended December 31,				
	2002	2001	2000	1999	1998
<b>Statements of Operations Data</b>					
Net sales	\$ 16,513,515	\$ 11,505,129	\$ 12,795,125	\$ 12,272,907	\$ 4,026,309
Cost of goods sold	6,586,925	5,137,630	5,828,319	6,405,887	2,913,208
Gross profit	9,926,590	6,367,499	6,966,806	5,867,020	1,113,101
<b>Operating expenses:</b>					
Marketing and sales	4,967,215	3,222,743	9,348,272	6,410,042	2,989,737
General and administrative (1)	2,401,087	2,104,180	3,372,083	3,039,595	2,671,445
Research and development	7,259	21,977	1,439,526	2,710,692	4,001,740
Other	(450)	119,460	313,538	—	—
Total operating expenses	7,375,111	5,468,360	14,473,419	12,160,329	9,662,922
Operating income (loss)	2,551,479	899,139	(7,506,613)	(6,293,309)	(8,549,821)
Interest income, net	199,084	325,596	428,081	1,141,626	1,816,333
Income (loss) before taxes	2,750,563	1,244,735	(7,078,532)	(5,151,683)	(6,733,488)
Income tax expense (benefit) (2)	(6,657,874)	—	—	—	—
Net income (loss)	\$ 9,408,437	\$ 1,224,735	\$ (7,078,532)	\$ (5,151,683)	\$ (6,733,488)
<b>Net income (loss) per share</b>					
Basic	\$ 0.70	\$ 0.10	\$ (0.99)	\$ (0.73)	\$ (0.97)
Diluted	\$ 0.69	\$ 0.10	\$ (0.99)	\$ (0.73)	\$ (0.97)
<b>Weighted-average common shares</b>					
Basic	13,355,027	12,546,108	7,167,088	7,040,891	6,954,600
Diluted	13,644,177	12,555,630	7,167,088	7,040,891	6,954,600
<b>December 31,</b>					
	2002	2001	2000	1999	1998
<b>Balance Sheet Data</b>					
Cash and equivalents	\$ 13,282,245	\$ 10,236,319	\$ 3,826,402	\$ 13,161,665	\$ 32,004,045
Working capital	36,236,017	33,444,926	25,937,806	26,709,142	33,887,496
Total assets	45,948,762	35,241,930	29,607,994	36,780,902	40,168,323
Shareholders' equity	43,751,551	34,077,776	26,859,784	33,494,143	37,996,332

1. Compensation expense related to the issuance of stock options for 2002, 2001, 2000, 1999 and 1998 was \$92,497, \$37,262, \$149,368, \$282,572, and \$527,811 respectively. See Note 7 of Notes to Financial Statements.
2. The Company recorded a one-time \$6.7 million non-operating and non-cash addition to earnings during 2002, due to the expected realization of deferred tax assets. See Note 8 of Notes to Financial Statements.

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION

All statements, trend analysis and other information contained in the following discussion relative to markets for our products and trends in revenue, gross margins and anticipated expense levels, as well as other statements, including words such as "anticipate," "believe," "plan," "estimate," "expect" and "intend" and other similar expressions constitute forward-looking statements. Our business is subject to business and economic risks and uncertainties, and our actual results of operations may differ materially from those expressed or implied in the forward-looking statements. The following discussion and the Section entitled "Business Risks" describes some, but not all, of the factors that could cause these differences.

### Overview

We manufacture, market and distribute Charles & Colvard created moissanite jewels (also called moissanite) for sale in the worldwide jewelry market. Moissanite, also known by its chemical name, silicon carbide (SiC), is a rare, naturally occurring mineral found primarily in meteorites. As the sole manufacturer of scientifically-made moissanite jewels, our strategy is to create a unique brand image which positions moissanite as a jewel in its own right, distinct from all other jewels based on its fire, brilliance, luster, durability and rarity.

From our inception in June 1995 through June 30, 1998, we were a development stage enterprise, devoting our resources to fund research and development of colorless, scientifically made moissanite jewels. We began shipping moissanite to domestic retail jewelers and international distributors during the second quarter of 1998. During the second quarter of 2000, we changed our domestic distribution model to sell through jewel distributors and jewelry manufacturers rather than directly to retail stores.

In March 2000, we entered into distribution agreements with Stuller Settings, Inc. (Stuller) and Rio Grande, two of the largest suppliers of jewelry-related products to the jewelry industry, for the North American distribution of moissanite. We have also entered into several agreements with domestic jewelry manufacturers, including K&G Creations, which is currently our largest customer. Through these agreements with Stuller, Rio Grande and jewelry manufacturers and the brand awareness created by our marketing program, we sought to rapidly increase the introduction of moissanite into the domestic jewelry market while maintaining average selling prices. Although these new distribution and marketing strategies enabled us to achieve profitability and positive cash flow in 2001 and 2002, we have no assurance that they will be successful in the long-term.

In October 2000, we established a wholly-owned subsidiary in Hong Kong, Charles & Colvard HK Ltd., for the purpose of gaining better access to the important Far Eastern markets. The importance of having a presence in this market is twofold; Hong Kong is the headquarters city for a very large number of jewelry manufacturing companies with sales and distribution worldwide, and Hong Kong is the gateway to the markets of Mainland China.

In 2001, we dramatically cut marketing and sales expenses, primarily by discontinuing significant advertising and promotion expenses in favor of lower cost public relations and media editorial initiatives. Additionally, we lowered general and administrative costs through personnel reductions, and we realized significant savings by suspending all research and development efforts with Cree. Domestic sales accounted for 82% of total sales in 2001 as we concentrated on growing our domestic business. Domestic distribution of moissanite expanded in 2001 into additional retail stores, including our first retail jewelry chain. Catalog sales of moissanite jewelry expanded significantly. We demonstrated that with appropriate product mix and product positioning, home shopping channels were a viable distribution channel for jewelry featuring moissanite. Primarily as a result of these efforts, we became profitable and generated positive cash flow from operations in 2001.

During 2002, we continued our focus on the domestic market, while investing limited resources in certain international markets that show the most potential. Our sales were 44% higher than sales in 2001 with sustained profitability and positive cash flow. We are hopeful that our sales will continue to increase as the distribution of moissanite jewels expands both domestically and internationally. Although our 2003 goals are to continue achieving increases in sales and to sustain profitability, we cannot be sure that either goal will be achieved.

## **Results of Operations**

*Year ended December 31, 2002 compared with Year ended December 31, 2001.*

Net sales were \$16,513,515 for the year ended December 31, 2002 compared to \$11,505,129 for the year ended December 31, 2001, an increase of \$5,008,386 or 44%. Shipments of moissanite jewels increased in 2002 to approximately 98,000 carats from 63,000 carats in 2001. Domestic carat shipments, which represented 85% of total shipments, increased by 63%, and international carat shipments increased by 26%. It should be noted that a portion of the carats shipped to international customers are set in jewelry and distributed by these customers to retail markets in several countries, including the United States. The average selling price per carat decreased by 7%, primarily due to increased sales of smaller jewels which have a lower price per carat. Increased domestic sales are primarily attributable to direct marketing efforts on the television shopping channels ShopNBC and the Shop At Home network. In addition, distribution has increased through our manufacturing partners at traditional retail stores. One of our domestic manufacturing customers, K&G Creations, accounted for approximately 42% of our sales during 2002. K&G Creations provides moissanite jewels and jewelry to a large and diversified customer base, including television shopping channels and traditional retail stores. While we believe our current relationship with this manufacturer is good and alternate manufacturers are available to serve its customer base, a loss of this manufacturer as a customer could cause a material adverse effect on our results of operations in a particular period. International sales also increased due to increased sales through television shopping channels. Specifically, moissanite jewels are now sold in the United Kingdom on Ideal World and by the infomercial company, Best Direct. International sales also increased in Hong Kong, China, and Italy.

Our gross profit margin was 60.1% for the year ended December 31, 2002 compared to 55.3% for the year ended December 31, 2001. The increased gross margin percentage was primarily caused by improved yields of moissanite jewels from SiC crystals during the period being relieved from inventory under our first in, first out accounting policy, partially offset by a 7% decrease in the average selling price per carat. Future gross margins will vary depending on our average selling price per carat and the inventory being relieved from inventory.

Marketing and sales expenses were \$4,967,215 for the year ended December 31, 2002 compared to \$3,222,743 for the year ended December 31, 2001, an increase of \$1,744,472 or 54%. The increase resulted primarily from \$720,000 of increased costs associated with our co-op advertising program, \$400,000 of increased print media advertising, increased compensation (including costs associated with the hiring of two sales and marketing executives) and increased costs associated with our Hong Kong subsidiary. Our co-op advertising program reimburses a portion of our customers' marketing costs based on the amount of their purchases from us. Our print media advertising expanded in 2002 into national magazines, jewelry trade publications, and newspapers in certain markets to support sales events. As a percentage of sales, these expenses increased from 28% in 2001 to 30% in 2002.

General and administrative expenses were \$2,401,087 for the year ended December 31, 2002 compared to \$2,104,180 for the year ended December 31, 2001, an increase of \$296,907 or 14%. The increase resulted primarily from \$470,000 of increased compensation costs, including \$366,000 in additional costs associated with our Executive Compensation Plan, offset by \$175,000 of decreased professional fees.

Although there was an increase in general and administrative expenses, as a percentage of sales these expenses decreased from 18% to 15%.

Research and development expenses were \$7,259 for the year ended December 31, 2002 compared to \$21,977 for the year ended December 31, 2001, a decrease of \$14,718 or 67%. We suspended development efforts with Cree effective January 1, 2001, and terminated our Development Agreement with Cree effective December 31, 2002.

Other expenses of \$119,460 for the year ended December 31, 2001 resulted from the write-off of certain patent costs and a loss on the disposition of certain other assets.

Net interest income was \$199,084 for the year ended December 31, 2002 compared to \$325,596 for the year ended December 31, 2001, a decrease of \$126,512 or 39%. This decrease resulted from a lower interest rate earned on our cash balances, partially offset by higher average cash balances.

For the year ended December 31, 2002, we recorded an income tax benefit of \$6,657,874. The benefit is due to the reversal of the deferred tax valuation allowance that existed in prior periods. We established a valuation allowance in prior periods due to the uncertainty of whether we would generate sufficient taxable income to realize the benefit of our deferred tax assets. We have now recorded eight consecutive quarters of profitability and believe that this sustained profitability is an indication that it is more likely than not that we will fully utilize our deferred tax assets. Actual income tax payments will not be made until the \$16.0 million tax net operating loss carry-forwards are completely utilized or if alternative minimum taxes are payable. Pro forma amounts are shown below to compare the results of operations for 2002 and 2001, excluding this one-time gain and giving effect to income tax expense. Income tax expense will be recorded in all future profitable periods.

	2002	2001
Net Sales	\$ 16,513,515	\$ 11,505,129
Operating Income	2,551,479	899,139
Reported after tax net income	9,408,437	1,224,735
Reported after tax net income per diluted share	0.69	0.10
Pro Forma Net Income	1,462,924	633,555
Pro Forma Net Income per diluted share	0.11	0.05

A reconciliation of pro forma net income and net income as reported is shown below.

	Year Ended December 31,	
	2002	2001
<b>As reported:</b>		
Income before income tax expense	\$ 2,750,563	\$ 1,224,735
Income tax benefit	6,657,874	—
Net Income	<u>\$ 9,408,437</u>	<u>\$ 1,224,735</u>
<b>Pro Forma (unaudited):</b>		
Income before income tax expense	\$ 2,750,563	\$ 1,224,735
Income tax expense (38% of U.S. taxable income)	(1,287,639)	(591,180)
Net Income	<u>\$ 1,462,924</u>	<u>\$ 633,555</u>

*Year ended December 31, 2001 compared with Year ended December 31, 2000.*

Net sales were \$11,505,129 for the year ended December 31, 2001 compared to \$12,795,125 for the year ended December 31, 2000, a decrease of \$1,289,996 or 10%. Shipments of moissanite jewels decreased in 2001 to approximately 63,000 carats from approximately 69,000 carats in 2000. Domestic carat shipments increased by 14%, offset by a 52% decrease of international carat shipments. Average selling



price per carat decreased by 2% in 2001 when compared to 2000 due primarily to increased sales of smaller jewels which have a lower price per carat. We focused our sales and marketing efforts during 2001 on the domestic market. During 2001, the domestic distribution of moissanite expanded into additional retail stores (including our first retail chain), catalog sales, and home shopping channels. The decreased international sales can be partially attributed to the lack of significant advertising and public relations activities abroad.

Our gross profit margin was 55.3% for the year ended December 31, 2001 compared to 54.4% for the year ended December 31, 2000. The increased gross margin percentage is primarily due to improved yield of moissanite jewels from SiC crystals and a \$135,000 decrease in our reserve for excess inventory, partially offset by a 2% decrease in our average selling prices.

Marketing and sales expenses were \$3,222,743 for the year ended December 31, 2001 compared to \$9,348,272 for the year ended December 31, 2000, a decrease of \$6,125,529 or 66%. The decrease resulted primarily from a \$5 million reduction in advertising and promotion costs consistent with our strategy to increase consumer impressions through lower cost approaches such as public relations activities and media editorial coverage, as well as decreased sales compensation costs (including severance costs recorded in 2000).

General and administrative expenses were \$2,104,180 for the year ended December 31, 2001 compared to \$3,372,083 for the year ended December 31, 2000, a decrease of \$1,267,903 or 38%. The decrease was primarily a result of \$425,000 of decreased compensation costs (including severance costs of \$245,000 recorded in 2000), a \$340,000 decrease in bad debt expense, and reduced general overhead expenses consistent with our efforts to cut costs.

Research and development expenses were \$21,977 for the year ended December 31, 2001 compared to \$1,439,526 for the year ended December 31, 2000, a decrease of \$1,417,549 or 99%. The decrease resulted from the suspension of development efforts with Cree effective January 1, 2001.

Other expenses for the year ended December 31, 2001 amounted to \$119,460, resulting from the write-off of certain patent costs and a loss on the disposition of certain other assets. Other expenses for the year ended December 31, 2000 amounted to \$313,538, which resulted primarily from the loss on the sale of crystal growth equipment to Cree and the disposition of certain other assets.

Net interest income was \$325,596 for the year ended December 31, 2001 compared to \$428,081 for the year ended December 31, 2000, a decrease of \$102,485 or 24%. This decrease resulted from a lower interest rate earned on our cash balances, as well as approximately \$61,000 of interest earned during 2000 on a receivable from Cree that was completely paid in 2000.

### **Liquidity and Capital Resources**

At December 31, 2002, we had \$13.3 million of cash and cash equivalents and \$36.2 million of working capital. Cash and inventory account for over 90% of our current assets. Our principal sources of liquidity are cash on hand and cash generated by operations. During the year ended December 31, 2002, \$3,477,100 was generated by operations. The major components of the generated cash were pretax income of \$2,750,563 and a reduction in receivables of \$742,165, offset by a \$1,024,254 increase in inventory. In addition, we used \$215,825 of cash for the purchase of furniture and equipment. We believe our existing capital resources are adequate to satisfy our capital requirements for at least the next 12 months.

In August 2002, we agreed with Cree on a framework for purchases through September 2007. We are obligated to purchase a minimum quantity of usable material on a quarterly basis if Cree meets certain minimum quality levels. For each quarter during the period beginning January 2003 and ending September 2007, we have committed to purchase between \$525,000 and \$2,100,000 of raw material

depending upon the quality of material received. If Cree's material quality is consistent with that received in 2002, which was better than the quality produced in previous years, future purchases are expected to be at the high end of this range. If we do not meet the minimum quarterly purchase commitment, we will be obligated to pay Cree an unused capacity charge for the idle growers. This charge will not be greater than \$110,000 in any given quarter.

Our four-year Development Agreement with Cree, as amended, required us to fund a development program at Cree for \$1.44 million annually through December 31, 2002. Our funding obligations under the Development Agreement were suspended from January 2001 through December 31, 2002, and the Agreement terminated at the end of 2002.

In September 2001, our Board of Directors authorized a common stock repurchase program. The program authorized management to repurchase up to 1,300,000 shares of the Company's common stock through open market or privately negotiated transactions. This program expired in September 2002. During 2001, the Company repurchased from Chester L. F. Paulson, a Director of the Company 76,000 shares at a cost of \$1 per share. During 2002, the Company repurchased 57,800 at an average price of \$3.88.

In October 2002, our Board of Directors authorized a follow-on repurchase program for up to 1,100,000 shares of the Company's common stock. At the discretion of management, the repurchase program can be implemented through open market or privately negotiated transactions at prices at or below prevailing prices. The Company will determine the time and extent of repurchases based on its evaluation of market conditions and other factors. There were no shares repurchased during 2002 under the follow-on program. From January 1, 2003 through March 19, 2003, we repurchased 80,300 shares of common stock at an average cost of \$4.82 per share. Of this amount 50,000 shares were repurchased from an affiliate of Chester L.F. Paulson, a director of the Company, at a purchase price of \$4.80 per share.

#### *Contractual Obligations and Commercial Commitments*

Our contractual obligations consist of our purchase commitments with Cree, the operating lease on our building and the operating lease for our Hong Kong subsidiary. Below are the amounts of these commitments in tabular form.

Contractual Obligations	Payments Due by Period				
	Total	Less than 1 year	1-3 years	4-5 years	More than 5 years
Purchase Commitments	\$ 39,900,000 <sup>(1)</sup>	\$ 8,400,000	\$ 25,200,000	\$ 6,300,000	\$ —
Operating Leases	\$ 326,000	\$ 188,000	\$ 138,000	\$ —	\$ —

(1) Beginning in January 2003 and ending September 2007, we are committed to purchase between \$525,000 and \$2,100,000 of raw material each quarter depending upon the quality of material received. If Cree's material quality is consistent with that received in 2002, future purchases are expected to be at the high end of this range. The numbers in the table above are based on the high end of the range. If we do not meet the minimum quarterly purchase commitment, we will be obligated to pay Cree an unused capacity charge for the idle growers. This charge will not be greater than \$110,000 in any given quarter.

#### *Net Operating Loss Carryforward*

As of December 31, 2002, we had a net operating loss (NOL) carryforward of approximately \$16.0 million, which expires between 2012 and 2020. In accordance with Section 382 of the Internal Revenue Code of 1986, as amended, a change in equity ownership of greater than 50% within a three-year period will result in an annual limitation on our ability to utilize our NOL carryforwards that were created during tax periods prior to the change in ownership. As a result of various equity offerings and certain

shareholder transactions, the utilization of a portion of our NOL carryforwards has become limited, but this limitation will not have a material effect on our ability to utilize the NOL carryforward.

#### *Critical Accounting Policies and Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The most significant estimates impacting our consolidated financial statements relate to costing and classification of inventories, revenue recognition, income taxes, accounts receivable reserves, and co-op advertising.

Inventories are stated at the lower of cost or market determined on a first in, first out basis. Our inventories consist primarily of colorless moissanite jewels that meet rigorous grading criteria and are of cuts and sizes most commonly used in the jewelry industry. Moissanite jewels that do not meet our grading criteria and therefore are not deemed to be saleable are not included in inventories. We carry only a limited amount of moissanite jewels in finished jewelry settings. As a result, our inventories do not degrade over time and are not subject to fashion trends. Our distribution channels include two of the largest suppliers of jewelry-related products to the jewelry industry, jewelry manufacturers, home shopping channels and catalogs. Consequently, significant amounts of inventories must be maintained at all times. Given our current assumptions, we believe that a substantial amount of inventories will be sold or consumed during our operating cycle. However, no assurances can be given that this reduction will occur. During 2002, we established a lower of cost or market reserve of \$400,000 to allow for a portion of the finished goods inventory to be re-cut. There are certain shapes and sizes of jewels in inventory that can be re-cut to achieve higher quality standards. The reserve is necessary to allow for the carat weight loss during the re-cutting process. To determine this reserve, we estimated the amount of inventory that is anticipated to be re-cut and the amount of weight loss that will occur during the process.

Revenue is generally recognized when products are shipped. From time to time, we ship certain items on "memo" terms. For goods shipped on memo terms, the customer receives title to the goods and assumes the risk of loss; however, the customer has an absolute right of return during the specified memo period. We recognize revenue on these transactions upon the earlier of (1) the customer informing us that they will keep the product or (2) the expiration of the memo period.

We account for income taxes under the liability method in accordance with FAS 109. Under the liability method, deferred income taxes are recognized for the tax consequences of "temporary differences" by applying enacted statutory tax rates applicable to future years to differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities. FAS 109 requires management to establish a valuation allowance to reduce deferred tax assets to the amount that is likely to be realized. Primarily due to losses accumulated prior to 2001 that can be carried forward to offset future federal and state taxable income, we have a net deferred tax asset. However, at December 31, 2000 and 2001, a full valuation allowance was established against this asset because enough evidence was not available that it would be more likely than not that we could generate enough future taxable income to utilize our loss carryforwards. At December 31, 2002, the valuation allowance was eliminated. After recording eight consecutive quarters of profitability, we now believe that our sustained profitable operations makes it more likely than not that we will realize sufficient taxable income in future years to fully recognize our deferred tax assets. If actual results differ unfavorably from our projections of future taxable income, we may not be able to realize our entire net deferred tax asset and a valuation allowance may again be required.

Estimates are used to determine the amount of two reserves against accounts receivable. First, an "Allowance for Doubtful Accounts" is established to reduce accounts receivable to an amount expected to be collected. Based on our collection history, we determine a percentage based on the age of the

receivable that we deem collectible. The allowance is then calculated by applying the appropriate percentage to each of our receivables. Any increases or decreases to this allowance are charged or credited to general and administrative expenses. This allowance for doubtful accounts was \$140,000 and \$275,000 at December 31, 2002 and 2001, respectively. The second reserve against accounts receivable is the "Allowance for Returns". At the time revenue is recognized, we estimate future returns and reduce sales and accounts receivable by this estimated amount. This amount is estimated using the historical return rate for our company. The allowance for returns was \$110,000 and \$105,000 at December 31, 2002 and 2001, respectively.

We offer a co-op advertising program to our customers that reimburses a portion of their marketing costs based on their net purchases from us. At the end of any given period, we estimate the amount of co-op advertising expense that has not yet been submitted for credit by our customers. We estimate this amount based on our historical experience with each customer.

#### *Newly Adopted Accounting Pronouncements*

In July 2001, Statement of Financial Accounting Standards No. 142 *Goodwill and Other Intangible Assets*, was issued. This statement requires that goodwill and other intangible assets with indefinite useful lives no longer be amortized, but instead be tested for impairment at least annually. This statement was effective on January 1, 2002. We do not have goodwill or other intangible assets with indefinite useful lives, and the adoption of this statement did not have an effect on our consolidated financial statements.

In August 2001, FAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, was issued. This statement addresses financial accounting and reporting for the impairment or disposal of long-lived assets and the manner in which the results of a discontinued operation are to be measured and presented. FAS 144 was required to be adopted on January 1, 2002. The adoption of this statement did not have an effect on our consolidated financial statements.

In November 2002, FAS Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements of Guarantees, Including Indirect Guarantees of Indebtedness of Others*, was issued. This interpretation elaborates on the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also clarifies that a guarantor is required to recognize, at the inception of the guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. The initial recognition and initial measurement provisions of this Interpretation are applicable on a prospective basis to guarantees issued or modified after December 31, 2002, irrespective of the guarantor's fiscal year-end. Management does not believe that this interpretation will be material for the Company.

In December 2002, FAS No. 148, *Accounting for Stock-Based Compensation—Transition and Disclosure*, was issued. This statement presents additional alternatives for transitioning to the fair value method of accounting for stock-based compensation, prescribes the format to be used for pro forma disclosures and requires the inclusion of similar pro forma disclosures in interim financial statements. We have not adopted the fair value based method of accounting for employee stock options. The disclosure provisions of FAS 148 have been provided in the accompanying notes to our consolidated financial statements.

#### *Newly Issued Accounting Pronouncements*

In August 2001, FAS No. 143, *Accounting For Asset Retirement Obligations*, was issued. This statement requires recording the fair value of a liability for an asset retirement obligation in the period in which it is incurred and a corresponding increase in the carrying value of the related long-lived asset. Over time, the liability is accreted to its present value each period, and the capitalized cost is depreciated over the useful life of the related asset. Upon settlement of the liability, it is either settled for its recorded amount or a

gain or loss upon settlement is recorded. FAS 143 is effective for our year ended December 31, 2003. We do not have any asset retirement obligations and do not expect the adoption of this statement to have an effect on our consolidated financial statements.

In April 2002, FAS No. 145, *Rescission of FAS Statements No. 4, 44, and 64, Amendment of FAS No. 13, and Technical Corrections*, was issued. This statement is effective for our year ended December 31, 2003. This statement rescinds the requirement that all gains and losses from extinguishment of debt be classified as extraordinary items. We do not expect the adoption of FAS 145 to have a material effect on our consolidated financial statements.

In July 2002, FAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*, was issued. This statement requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of a commitment to an exit or disposal plan. FAS 146 is to be applied prospectively to exit or disposal activities initiated after December 31, 2002. We do not expect the adoption of FAS 146 to have a material effect on our consolidated financial statements.

#### **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We believe that our exposure to market risk for changes in interest rates is not significant because our investments are limited to highly liquid instruments with maturities of three months or less. At December 31, 2002, we had approximately \$12.6 million of short-term investments classified as cash and equivalents. All of our transactions with international customers and suppliers are denominated in U.S. dollars.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

Index to Financial Statements

	<u>Page</u>
<a href="#">Independent Auditors' Report</a>	31
<a href="#">Consolidated Statements of Operations for the years ended December 31, 2002, 2001 and 2000</a>	32
<a href="#">Consolidated Balance Sheets as of December 31, 2002 and 2001</a>	33
<a href="#">Consolidated Statements of Shareholders' Equity for the years ended December 31, 2002, 2001 and 2000</a>	34
<a href="#">Consolidated Statements of Cash Flows for the years ended December 31, 2002, 2001 and 2000</a>	35
<a href="#">Notes to Consolidated Financial Statements</a>	36
Financial Statement Schedule	
<a href="#">Schedule II – Valuation and Qualifying Accounts</a>	47

All other schedules are omitted due to the absence of the conditions under which they are required or because the required information is included within the financial statements or the notes thereto included in Item 8.

*INDEPENDENT AUDITORS' REPORT*

To the Board of Directors and Shareholders of  
Charles & Colvard, Ltd.  
Morrisville, North Carolina

We have audited the accompanying consolidated balance sheets of Charles & Colvard, Ltd. and subsidiary (the "Company") as of December 31, 2002 and 2001, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2002. Our audits also included the financial statement schedule listed in the Index at Item 8. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2002 and 2001, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2002, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

DELOITTE & TOUCHE LLP

Raleigh, North Carolina  
February 7, 2003

CHARLES & COLVARD, LTD.  
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2002	2001	2000
Net sales	\$ 16,513,515	\$ 11,505,129	\$ 12,795,125
Cost of goods sold	6,586,925	5,137,630	5,828,319
Gross profit	9,926,590	6,367,499	6,966,806
Operating expenses:			
Marketing and sales	4,967,215	3,222,743	9,348,272
General and administrative (Note 7)	2,401,087	2,104,180	3,372,083
Research and development	7,259	21,977	1,439,526
Other expenses (income)	(450)	119,460	313,538
Total operating expenses	7,375,111	5,468,360	14,473,419
Operating income (loss)	2,551,479	899,139	(7,506,613)
Interest income, net	199,084	325,596	428,081
Income (loss) before taxes	2,750,563	1,224,735	(7,078,532)
Income tax expense (benefit) (Note 8)	(6,657,874)	—	—
Net income (loss)	\$ 9,408,437	\$ 1,224,735	\$ (7,078,532)
Net Income (Loss) per share (Note 2)			
Basic	\$ 0.70	\$ 0.10	\$ (0.99)
Diluted	\$ 0.69	\$ 0.10	\$ (0.99)
Weighted-average common shares (Note 2)			
Basic	13,355,027	12,546,108	7,167,088
Diluted	13,644,177	12,555,630	7,167,088

*See notes to consolidated financial statements.*



CHARLES & COLVARD, LTD.  
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2002	2001
<b>Assets</b>		
Current Assets:		
Cash and equivalents	\$ 13,282,245	\$ 10,236,319
Accounts receivable, net of allowance for doubtful accounts of \$140,000 and \$275,000 respectively	2,195,952	2,803,117
Interest receivable	11,926	13,824
Inventory, net (Note 3)	22,365,325	21,341,071
Prepaid expenses and other assets	327,179	214,749
Deferred income taxes (Note 8)	250,601	—
	38,433,228	34,609,080
Long Term Assets:		
Equipment, net (Note 4)	449,947	342,281
Patent and license rights, net (Note 4)	272,291	290,569
Deferred income taxes (Note 8)	6,793,296	—
	7,515,534	632,850
Total long term assets		
	7,515,534	632,850
Total assets	\$ 45,948,762	\$ 35,241,930
<b>Liabilities and Shareholders' Equity</b>		
Current Liabilities:		
Accounts payable:		
Cree, Inc. (Note 9)	\$ 780,029	\$ 405,020
Other	122,931	154,831
Accrued payroll	723,467	202,012
Accrued expenses and other liabilities	387,417	272,490
Deferred revenue	183,367	129,801
	2,197,211	1,164,154
Total current liabilities		
	2,197,211	1,164,154
Commitments (Note 9)		
Shareholders' Equity (Notes 5 and 6)		
Common stock, no par value; 50,000,000 shares authorized; 13,324,555 and 13,371,714 shares issued and outstanding at December 31, 2002 and 2001, respectively	54,972,302	55,182,692
Additional paid-in capital—stock options	2,439,734	1,964,006
Accumulated deficit	(13,660,485)	(23,068,922)
	43,751,551	34,077,776
Total shareholders' equity		
	43,751,551	34,077,776
Total liabilities and shareholders' equity	\$ 45,948,762	\$ 35,241,930

*See notes to consolidated financial statements.*

CHARLES & COLVARD, LTD.  
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

	Common Stock		Additional Paid-in Capital - - Stock Options	Accumulated Deficit	Total Shareholders' Equity
	Number Of Shares	Amount			
Balance at January 1, 2000	7,098,911	\$ 48,757,702	\$ 1,951,566	\$ (17,215,125)	\$ 33,494,143
Compensation expense related to stock options	—	—	149,368	—	149,368
Stock options exercised	102,068	468,995	(174,190)	—	294,805
Net loss	—	—	—	(7,078,532)	(7,078,532)
Balance at December 31, 2000	7,200,979	49,226,697	1,926,744	(24,293,657)	26,859,784
Compensation expense related to stock options	—	—	37,262	—	37,262
Proceeds from rights offering, net of offering costs of \$214,740	6,246,735	6,031,995	—	—	6,031,995
Shares repurchased	(76,000)	(76,000)	—	—	(76,000)
Net income	—	—	—	1,224,735	1,224,735
Balance at December 31, 2001	13,371,714	55,182,692	1,964,006	(23,068,922)	34,077,776
Compensation expense related to stock options	—	—	92,497	—	92,497
Stock options exercised	10,641	13,631	(2,792)	—	10,839
Tax benefit on employee stock options	—	—	386,023	—	386,023
Shares repurchased	(57,800)	(224,021)	—	—	(224,021)
Net Income	—	—	—	9,408,437	9,408,437
Balance at December 31, 2002	13,324,555	\$ 54,972,302	\$ 2,439,734	\$ (13,660,485)	\$ 43,751,551

*See notes to consolidated financial statements.*

CHARLES & COLVARD, LTD.  
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2002	2001	2000
<b>Operating Activities</b>			
Net income (loss)	\$ 9,408,437	\$ 1,224,735	\$ (7,078,532)
Adjustments:			
Depreciation and amortization	128,604	150,935	569,986
Stock option compensation	92,497	37,262	149,368
Loss on disposal of long term assets	—	119,460	336,958
Change in provision for uncollectable accounts	(135,000)	(45,000)	250,000
Deferred income taxes	(7,043,897)	—	—
Tax benefit on employee stock options	386,023	—	—
Changes in assets and liabilities:			
Accounts receivable	742,165	(1,290,076)	(386,513)
Interest receivable	1,898	5,066	56,109
Inventory	(1,024,254)	1,730,345	(3,303,528)
Prepaid expenses and other assets	(112,430)	86,518	358,554
Accounts payable	343,109	(1,435,295)	(937,776)
Accrued payroll	521,455	91,386	(49,021)
Accrued expenses and other liabilities	114,927	(256,952)	453,982
Deferred revenue	53,566	16,805	(5,734)
Net cash provided (used) in operating activities	3,477,100	435,189	(9,586,147)
<b>Investing Activities</b>			
Purchases of equipment	(215,825)	(37,362)	(23,771)
Patent and license rights costs	(33,252)	(15,305)	(62,600)
Proceeds from sale of long term assets	31,085	71,400	42,450
Net cash provided (used) in investing activities	(217,992)	18,733	(43,921)
<b>Financing Activities</b>			
Stock options exercised	10,839	—	294,805
Purchase of common stock	(224,021)	(76,000)	—
Proceeds from stock rights offering	—	6,031,995	—
Net cash provided (used) in financing activities	(213,182)	5,955,995	294,805
Net change in cash and equivalents	3,045,926	6,409,917	(9,335,263)
Cash and equivalents at beginning of year	10,236,319	3,826,402	13,161,665
Cash and equivalents at end of year	\$ 13,282,245	\$ 10,236,319	\$ 3,826,402

**Supplemental non-cash investing activity:**

In May 2000, the Company sold its crystal growth equipment to Cree, Inc. (Cree) for \$5,000,000.

The \$5 million receivable from this transaction was reduced by future purchases from Cree.

**Supplemental non-cash operating activity:**

During the year ended December 31, 2000, there were approximately \$5,000,000 of inventory purchases financed by the receivable from Cree.

*See notes to consolidated financial statements.*

## 1. Organization and Basis of Presentation

Charles & Colvard, Ltd. (formerly C3, Inc.) (“the Company”), was incorporated in North Carolina on June 28, 1995 and manufactures, markets and distributes Charles & Colvard created moissanite jewels (hereinafter referred to as moissanite or moissanite jewels) for sale in the worldwide jewelry market. Moissanite, also known by its chemical name, silicon carbide (SiC), is a rare, naturally occurring mineral found primarily in meteorites. Moissanite is being positioned as a jewel in its own right, distinct from all other jewels based on its fire, brilliance, luster, durability and rarity. From its inception in June 1995 through June 30, 1998, the Company was a development stage enterprise that devoted its resources to fund research and development of colorless, scientifically made moissanite jewels. The Company began shipping moissanite to domestic retail jewelers and international distributors during the second quarter of 1998. During the second quarter of 2000, the Company changed its domestic distribution model to sell through jewel distributors and jewelry manufacturers rather than direct to retail stores.

All of the Company’s activities are within a single business segment. Export sales aggregated approximately \$2.3 million, \$2.1 million, and \$4.6 million in 2002, 2001, and 2000 respectively.

## 2. Summary of Significant Accounting Policies

### *Principles of Consolidation*

The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiary in Hong Kong. This subsidiary was established in October of 2000. All inter-company accounts have been eliminated.

### *Cash and Equivalents*

The Company considers all money market accounts and investments purchased with an original maturity of three months or less to be cash equivalents.

### *Inventory*

Inventories are stated at the lower of cost or market determined on a first in, first out basis. Based on current estimates and assumptions, the Company believes that a substantial amount of inventories will be sold or consumed during its operating cycle. However, to be prepared to react to possible customer demand for large purchases and for a variety of jewel styles, a significant amount of inventory must be maintained at all times.

The Company currently sells one grade of jewel. The grade is classified as “very good” and consists of near colorless jewels that meet certain standards. Only “very good” jewels are valued in inventory. There is a substantial amount of jewels, including colored jewels, that have not met the quality standards and are not valued in inventory. In the future, management might determine that there is a market for a portion of this unvalued inventory.

### *Equipment*

Equipment is recorded at cost and depreciated on the straight-line method based on estimated useful lives of three to 12 years. Leasehold improvements are amortized on the straight-line method over the life of the related lease.

### *Patents and License Rights*

The Company capitalizes costs associated with obtaining patents issued or pending for inventions and license rights related to the manufacture of moissanite jewels and moissanite jewel test instruments. Such costs are amortized over 17 years.

### *Accounting for Long-Lived Assets*

The Company accounts for long-lived assets in accordance with Statement of Financial Accounting Standards (“FAS”) No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. The Company evaluates the recoverability of its long-lived assets for financial impairment whenever events or changes in circumstances indicate that the carrying value of such assets may not be fully recoverable. Based on these evaluations, there were no significant adjustments to the carrying value of long-lived assets in 2002, 2001 or 2000.

### *Concentrations of Credit Risk*

Financial instruments which potentially subject the Company to concentrations of credit risk are primarily cash equivalents and trade receivables. The Company maintains cash and cash equivalents with high quality financial institutions and invests in low risk securities including U.S. Treasury bills, money market funds, and government agency notes.

Trade receivables potentially subject the Company to credit risk. The Company extends credit to its customers based upon an evaluation of the customer’s financial condition and credit history and does not require collateral. During 2002, three customers accounted for approximately 42%, 23% and 14% of the Company’s sales. At December 31, 2002, these customers accounted for 59%, 2%, and 16% of receivables, respectively. During 2001, two customers accounted for approximately 38% and 26% of the Company’s sales. At December 31, 2001, these customers accounted for 38% and 22% of receivables, respectively. A third customer accounted for 19% of receivables at December 31, 2001. During 2000, one customer accounted for 26% of the Company’s sales.

### *Revenue Recognition*

Revenue is generally recognized when products are shipped. From time to time, the Company ships certain items on “memo” terms. For goods shipped on memo terms, the customer receives title to the goods and assumes the risk of loss, however they have an absolute right of return during the specified memo period. The Company recognizes revenue on these transactions upon the earlier of (1) the customer informing the Company that it will keep the product or (2) the expiration of the memo period.

### *Advertising Costs*

Advertising production costs are expensed as incurred. Media placement costs are expensed over the period the advertising appears. Advertising expenses for the years ended December 31, 2002, 2001, and 2000 amounted to approximately \$2,800,000, 1,600,000, and \$5,700,000, respectively.

### *Research and Development*

All research and development costs are expensed as incurred.

### *Stock Compensation*

The Company measures compensation costs related to employee incentive stock options using the intrinsic value of the equity instrument granted (i.e., the excess of the market price of the stock to be issued over the exercise price of the equity instrument at the date of grant) rather than the fair value of the equity instrument.

In accordance with APB 25, and the provision of FAS 123 as applicable to consultants, the Company recorded compensation expense of approximately \$92,000, \$37,000, and \$149,000 during 2002, 2001, and 2000, respectively, relating to stock options granted with exercise prices less than market value or granted to consultants. Had compensation expense for all stock options been determined consistent with

FAS 123, rather than APB 25, the Company's net income (loss) and income (loss) per share for the years ended December 31, 2002, 2001, and 2000 would have been recorded to the pro forma amounts indicated below:

	2002	2001	2000
Net income (loss), as reported	\$ 9,408,437	\$ 1,224,735	\$ (7,078,532)
Pro forma net income (loss)	8,971,671	1,137,035	(7,316,709)
Basic net income (loss) per share:			
As reported	\$ 0.70	\$ 0.10	\$ (0.99)
Pro forma	0.67	0.09	(1.02)
Diluted net income (loss) per share:			
As reported	\$ 0.69	\$ 0.10	\$ (0.99)
Pro forma	0.66	0.09	(1.02)

The fair value of each option grant is estimated on the grant date using a Black-Scholes option pricing model. The valuations for the years ended December 31, 2002, 2001, and 2000 were based on the following assumptions:

	2002	2001	2000
Weighted-average grant date fair value	\$ 2.99	\$ 0.91	\$ 4.04
Weighted-average expected lives (in years)	7.00	7.00	7.00
Risk-free interest rate	3.425%	3.12-5.32%	4.74%
Dividend yield	0%	0%	0%
Volatility factor	.985	.977-1.006	1.723

#### *Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### *Income Taxes*

The Company accounts for income taxes under the provisions of FAS No. 109, *Accounting for Income Taxes*. Under FAS 109, deferred income taxes are recognized for the tax consequences of "temporary" differences by applying enacted statutory tax rates applicable to future years to differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities. Valuation allowances are established when necessary to reduce deferred tax assets to the amount that is likely to be realized. As of December 31, 2001, the net deferred tax assets were fully reserved. During 2002, the valuation allowance was eliminated as it has become more likely than not that the deferred tax assets will be realized due to sustained profitability during 2002 and 2001.

#### *Net Income (Loss) Per Share*

The Company reports its net income (loss) per share in accordance with the Statement of FAS No. 128, *Earnings Per Share*. FAS 128 requires the presentation of both basic and diluted earnings per share, regardless of materiality, unless per share amounts are equal. Basic net income (loss) per share computations are based on the weighted-average common shares outstanding. Diluted net income (loss) per share computations include the dilutive effect, if any, of stock options and warrants using the treasury stock method.

For the years ended December 31, 2002, 2001, and 2000, warrants to purchase 300,000 shares of common stock at \$18 per share were excluded from the computation of diluted net income (loss) per share because either the exercise price was greater than the average market price of the common shares or the effect of inclusion of such amounts would be anti-dilutive to net income (loss) per share. These

warrants expired unexercised in November of 2002. In addition, for the years ended December 31, 2002, 2001, and 2000 stock options to purchase approximately 950,000, 1,200,000, and 1,200,000 shares, respectively, were also excluded from the computation of diluted net income (loss) per share because either the options' exercise price was greater than the average market price of the common shares or the effect of inclusion of such amounts would be anti-dilutive to net income (loss) per share. During 2002, approximately 640,000 common stock options with an exercise price less than the average market price were included in the computation of diluted earnings per share. The weighted-average dilutive impact of these options, net of 340,000 treasury shares assumed to be repurchased, was 289,150 shares. During 2001, approximately 180,000 common stock options with an exercise price less than the average market price were included in the computation of diluted earnings per share. The weighted-average dilutive impact of these options, net of 170,000 treasury shares assumed to be repurchased, was 9,522 shares.

#### *Newly Adopted Accounting Pronouncements*

In July 2001, Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets*, was issued. This statement requires that goodwill and other intangible assets with indefinite useful lives no longer be amortized, but instead be tested for impairment at least annually. This statement was effective on January 1, 2002. The Company does not have goodwill or other intangible assets with indefinite useful lives, and the adoption of this statement did not have an effect on its consolidated financial statements.

In August 2001, FAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, was issued. This statement addresses financial accounting and reporting for the impairment or disposal of long-lived assets and the manner in which the results of a discontinued operation are to be measured and presented. FAS 144 was required to be adopted by the Company on January 1, 2002. The adoption of this statement did not have an effect on its consolidated financial statements.

In November 2002, FAS Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements of Guarantees, Including Indirect Guarantees of Indebtedness of Others*, was issued. This interpretation elaborates on the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also clarifies that a guarantor is required to recognize, at the inception of the guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. The initial recognition and initial measurement provisions of this Interpretation are applicable on a prospective basis to guarantees issued or modified after December 31, 2002, irrespective of the guarantor's fiscal year-end. Management does not believe that this interpretation will be material for the Company.

In December 2002, FAS No. 148, *Accounting for Stock-Based Compensation—Transition and Disclosure* was issued. This statement presents additional alternatives for transitioning to the fair value method of accounting for stock-based compensation, prescribes the format to be used for pro forma disclosures and requires the inclusion of similar pro forma disclosures in interim financial statements. The Company has not adopted the fair value based method of accounting for employee stock options, however the disclosure requirements are included elsewhere in Note 2 of the Notes to the Company's Consolidated Financial Statements.

#### *Newly Issued Accounting Pronouncements*

In August 2001, FAS No. 143, *Accounting For Asset Retirement Obligations*, was issued. This statement requires recording of the fair value of a liability for an asset retirement obligation in the period in which it is incurred and a corresponding increase in the carrying value of the related long-lived asset. Over time, the liability is accreted to its present value each period, and the capitalized cost is depreciated over the useful life of the related asset. Upon settlement of the liability, it is either settled for its recorded amount or a gain or loss upon settlement is recorded. FAS 143 is effective for the Company's year ended December 31, 2003. The Company does not have any asset retirement obligations and does not expect the adoption of this statement to have any effect on its consolidated financial statements.

In April 2002, FAS No. 145, *Rescission of FAS Statements No. 4, 44, and 64, Amendment of FAS No. 13, and Technical Corrections*, was issued. This statement is effective for our year ended December 31, 2003. This statement rescinds the requirement that all gains and losses from extinguishment of debt be classified as extraordinary items. The Company does not expect the adoption of FAS 145 to have a material effect on its consolidated financial statements.

In July 2002, FAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*, was issued. This statement requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of a commitment to an exit or disposal plan. FAS 146 is to be applied prospectively to exit or disposal activities initiated after December 31, 2002. The Company does not expect the adoption of FAS 146 to have a material effect on its consolidated financial statements.

#### Reclassification

Certain 2001 and 2000 amounts have been reclassified to conform with the 2002 presentation.

### 3. Inventories

Inventories consisted of the following:

	December 31,	
	2002	2001
<b>Moissanite</b>		
Raw materials	\$ 217,815	\$ 131,525
Work-in-process	4,625,425	1,604,699
Finished goods	17,522,085	19,588,295
	<u>22,365,325</u>	<u>21,324,519</u>
<b>Test instruments</b>	—	16,552
	<u>—</u>	<u>16,552</u>
<b>Total Inventory</b>	<u>\$ 22,365,325</u>	<u>\$ 21,341,071</u>

Finished goods are shown net of a reserve for excess jewelry inventory of \$230,000 and \$170,000 at December 31, 2002 and December 31, 2001, respectively. Test instruments are shown net of a reserve for excess inventory of \$465,000 at December 31, 2001. During 2002, the Company completed a sale of its entire test instrument inventory.

At December 31, 2002, finished goods are shown net of a lower of cost or market reserve of \$400,000 to allow for a portion of the finished goods inventory to be re-cut. There are certain shapes and sizes of jewels in inventory that will be re-cut to achieve higher quality standards. These jewels can be re-cut into shapes and sizes that have a higher demand without the purchase of additional raw material. This reserve is necessary to allow for the carat weight loss during the re-cutting process.

### 4. Equipment and Patent and License Rights

Equipment balances are summarized as follows:

	December 31,	
	2002	2001
<b>Machinery and equipment</b>	\$ 311,517	\$ 251,517
Computer equipment	448,337	367,461
Furniture and fixtures	130,108	93,388
Leasehold improvements	103,073	103,073
Construction in progress	38,229	—
	<u>1,031,264</u>	<u>815,439</u>
<b>Total</b>	1,031,264	815,439
Accumulated depreciation	(581,317)	(473,158)
	<u>—</u>	<u>—</u>
<b>Total equipment, net</b>	<u>\$ 449,947</u>	<u>\$ 342,281</u>

Depreciation expense for 2002, 2001, and 2000 was \$108,159, \$128,523, and \$473,122, respectively.



Patent and license rights balances are summarized as follows:

	December 31,	
	2002	2001
Patent and license rights	\$ 354,914	\$ 365,096
Accumulated amortization	(82,623)	(74,527)
Patent and license rights, net	<u>\$ 272,291</u>	<u>\$ 290,569</u>

Amortization expense for 2002, 2001, and 2000 was \$20,445, \$22,412, and \$96,864, respectively. Amortization expense is estimated to be approximately \$20,000 for each of the next five years.

## 5. Common Stock

On February 21, 2001, the Company completed a Rights Offering to its shareholders. The Company issued an aggregate of 6,246,735 shares of common stock at \$1 per share. Net proceeds from the offering, after expenses, were \$6,031,995.

In September 2001, the Board of Directors authorized a common stock repurchase program. The program authorized management to repurchase up to 1,300,000 shares of the Company's common stock through open market or privately negotiated transactions. This program expired in September 2002. During 2001, the Company repurchased from a Director of the Company 76,000 shares at a cost of \$1 per share. During 2002, the Company repurchased 57,800 shares at an average price of \$3.88.

In October 2002, the Board of Directors authorized a follow-on repurchase program for up to 1,100,000 shares of the Company's common stock. At the discretion of management, the repurchase program can be implemented through open market or privately negotiated transactions at prices at or below prevailing prices. The Company will determine the time and extent of repurchases based on its evaluation of market conditions and other factors. As of December 31, 2002, there were no shares repurchased since the adoption of the follow-on program.

## 6. Preferred Stock

The Company has authorized 10 million shares of preferred stock, no par value. The preferred stock may be issued from time to time in one or more series.

On February 21, 1999 the Company adopted a Shareholder Rights Plan under which all shareholders of record as of March 8, 1999 received rights to purchase shares of a new series of Preferred Stock. The adoption of this plan is intended as a means to guard against abusive takeover tactics. The rights will be exercisable only if a person or group acquires or announces a tender offer to acquire 20% or more of the Company's common stock. Under the plan all shareholders except the purchaser will be entitled to acquire the Company's common stock at a 50% discount. The rights will trade with the Company's common stock, unless and until they are separated upon the occurrence of certain future events.

## 7. Compensation

### *Stock Option Plans*

In 1996, the Company adopted the 1996 Stock Option Plan of C3, Inc. ("1996 Option Plan") under which options to acquire 777,450 common shares, reduced by the number of options granted outside the 1996 Option Plan, may be granted to key employees, directors and independent consultants. Under the 1996 Option Plan, both incentive and non-qualified options may be granted under terms and conditions established by the Compensation Committee of the Board of Directors. The exercise price for incentive options will be the fair market value of the related common stock on the date the option is granted. Options granted under the 1996 Option Plan generally vest equally over a three-year period and have terms of 10 years. The Company currently has no plans to award additional options under the 1996 Option Plan.

In 1997, the Company adopted the 1997 Omnibus Stock Plan of C3, Inc. (the “1997 Omnibus Plan”). The 1997 Omnibus Plan authorizes the Company to grant stock options, stock appreciation rights and restricted awards (collectively, “awards”) to selected employees, independent contractors and directors of the Company and related corporations in order to promote a closer identification of their interests with those of the Company and its shareholders. The maximum number of shares of common stock for which awards may be granted under the 1997 Omnibus Plan may be increased from time to time to a number of shares equal to (i) 20% of the shares of common stock outstanding as of that time less (ii) the number of shares of common stock subject to outstanding options under the 1996 Option Plan. The number of shares reserved for issuance under the 1997 Omnibus Plan may also be adjusted upon certain events affecting the Company’s capitalization. Options granted under the 1997 Omnibus Plan generally vest over three- to five-year periods and have terms of 10 years, with the exception of options granted under the Executive Compensation Plan that vest immediately. The Board of Directors has reserved 1,730,912 shares for issuance under the 1997 Omnibus Plan.

The following is a summary of activity for the Company’s two stock option plans:

	1996 Option Plan		1997 Omnibus Plan	
	Number Of Shares	Weighted-Average Exercise Price	Number of Shares	Weighted Average Exercise Price
<b>2000</b>				
Outstanding at beginning of year	462,245	\$ 3.83	740,248	\$ 12.43
Granted	—	—	208,900	4.41
Exercised	(102,068)	2.89	—	—
Canceled	—	—	(110,282)	8.98
Outstanding at end of year	360,177	4.10	838,866	10.88
<b>2001</b>				
Granted	—	—	257,600	1.16
Exercised	—	—	—	—
Canceled	(5,745)	4.04	(79,266)	11.49
Outstanding at end of year	354,432	4.10	1,017,200	8.31
<b>2002</b>				
Granted	—	—	233,066	3.64
Exercised	—	—	(10,641)	1.02
Canceled	—	—	(16,700)	5.96
Outstanding at end of year	354,432	\$ 4.10	1,222,925	\$ 7.52

The following summarizes information about stock options outstanding at December 31, 2002:

Range of Exercise Price	Options Outstanding			Options Exercisable	
	Outstanding as of 12/31/2002	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Exercisable as of 12/31/2002	Weighted-Average Exercise Price
\$ 0.00-\$ 1.64	277,459	6.9	\$ 1.1977	179,789	\$ 1.2053
\$ 1.65-\$ 3.28	212,508	5.9	\$ 2.5360	183,674	\$ 2.5649
\$ 3.29-\$ 4.93	354,690	4.6	\$ 4.4186	283,290	\$ 4.5053
\$ 4.94-\$ 6.57	159,200	4.7	\$ 5.4508	92,058	\$ 5.3810
\$ 6.58-\$ 8.22	55,000	5.2	\$ 7.8020	54,066	\$ 7.8224
\$ 8.23-\$ 9.86	100,100	4.6	\$ 8.8517	100,100	\$ 8.8517
\$ 9.87-\$11.51	13,600	4.8	\$ 10.8100	13,600	\$ 10.8100
\$11.52-\$13.14	—	—	\$ —	—	\$ —
\$13.15-\$14.79	168,300	2.9	\$ 13.8667	168,300	\$ 13.8667
\$14.80-\$16.44	236,500	4.3	\$ 15.0000	142,150	\$ 15.0000
	<u>1,577,357</u>	<u>5.0</u>	<u>\$ 6.7516</u>	<u>1,217,027</u>	<u>\$ 6.8868</u>

In connection with the Company's initial public offering on November 14, 1997, the Company issued warrants to the underwriter to purchase 300,000 shares of common stock at a price of \$18 per share. These warrants expired unexercised in November of 2002.

#### Other

In May 2002, the Company amended the 2001 Executive Compensation Plan to remain in effect during 2002. This plan offers key employees of the Company incentive awards in the form of cash payments, and/or stock option grants based upon the Company's attainment of certain performance goals. For 2002, \$450,000 in cash payments were recorded as operating expenses and 124,000 stock options were granted under the plan. No compensation was recorded for the stock options granted under the plan. For 2001, \$42,000 in cash payments were recorded as operating expenses and 91,000 stock options were granted under the plan. No compensation was recorded for the stock options granted under the plan.

#### 8. Income Taxes

The Company accounts for income taxes under the liability method in accordance with FAS 109. Under the liability method, deferred income taxes are recognized for the tax consequences of "temporary differences" by applying enacted statutory tax rates applicable to future years to differences between the financial statement carrying amounts and the tax bases of existing assets and liabilities.

Significant components of the Company's deferred tax assets and liabilities are as follows:

	December 31,	
	2002	2001
<b>Current</b>		
Reserves and accruals	\$ 250,601	\$ 326,000
<b>Long-Term</b>		
Federal and state loss carryforwards	6,167,000	7,394,000
Benefit of research tax credits	416,000	416,000
Stock option compensation	247,000	—
Depreciation	(36,704)	(31,000)
Total long term	6,793,296	7,779,000
Total deferred tax assets	7,043,897	8,105,000
Less valuation allowance	—	(8,105,000)
Net deferred tax assets	\$ 7,043,897	\$ —

A reconciliation between expected income taxes, computed at the statutory federal income tax rate (34%) applied to pretax accounting income, and the income taxes included in the statements of operations for the years ended December 31, 2002, 2001 and 2000 follows:

	2002	2001	2000
Anticipated income tax expense (benefit) at the statutory federal rate	\$ 935,000	\$ 416,000	\$ (2,407,000)
State income tax expense (benefit), net of federal tax effect	125,000	56,000	(322,000)
Research tax credits	—	—	(61,000)
Tax benefit of exercised stock options	149,000	—	—
Compensation expense—stock options	—	14,000	58,000
Foreign subsidiary expense included in books	219,000	128,000	—
Other	19,126	111,000	125,000
Increase (decrease) in valuation allowance	(8,105,000)	(725,000)	2,607,000
Income tax (benefit) expense	\$ (6,657,874)	\$ —	\$ —

At December 31, 2002, the Company has operating and economic loss carryforwards of approximately \$16,000,000 expiring through 2020 for Federal Tax and 2015 for State Tax purposes, which can be offset against future federal and state taxable income. In accordance with Section 382 of the Internal Revenue Code of 1986, as amended, a change in equity ownership of greater than 50% of the Company within a three-year period results in an annual limitation on the Company's ability to utilize its NOL carryforwards that were created during tax periods prior to the change in ownership. As a result of various equity offerings and certain shareholder transactions, the utilization of a portion of the Company's NOL carryforwards has become limited, however, the Company does not believe this limitation will have a material effect on the Company's ability to utilize the NOL carryforward.

At December 31, 2001, the Company's assessment of the future net realizable value of deferred tax assets resulted in a valuation allowance. At that point in time, the Company had recorded one profitable year following years of significant losses and it was not clear if sufficient taxable income would be generated to realize the temporary differences and tax credit carryforwards. At December 31, 2002, the valuation allowance was eliminated. The Company has now recorded eight consecutive quarters of profitability and believes that the sustained profitable operations makes it more likely than not that the Company will realize sufficient taxable income in future years to fully recognize its deferred tax assets.

## 9. Commitments

### *Operating Lease*

The Company leases approximately 12,700 square feet of mixed use space from an unaffiliated third party at a base cost of approximately \$11,000 per month, plus contingent rentals based on the Company's proportionate share of the lessor's operating costs, as defined in the lease agreement. The lease expires August 31, 2004 and provides for escalations of the base rent throughout the lease term, up to \$11,700 at September 1, 2003.

The future minimum lease payments of the Company, including its Hong Kong subsidiary, are as follows: \$188,000 in 2003, \$129,000 in 2004, and \$9,000 in 2005, totaling \$326,000. Rental expense incurred for operating leases and leases whose terms are less than one year in duration for 2002, 2001, and 2000 was approximately \$209,000, \$190,000, and \$405,000, respectively.

### *Purchase Commitment*

On June 6, 1997, the Company entered into an Amended and Restated Exclusive Supply Agreement ("Exclusive Supply Agreement") and a Development Agreement with Cree. The Exclusive Supply Agreement has an initial term of ten years which may be extended for an additional ten years by either party if the Company orders in any 36-month period SiC crystals with an aggregate purchase price in excess of \$1 million. The Company has met this order threshold and expects to extend the term of the Exclusive Supply Agreement. In connection with the Exclusive Supply Agreement, the Company has committed to purchase a minimum of 50% (by dollar volume) of its requirements for SiC crystals from Cree. If the Company's orders require Cree to expand beyond specified production levels, the Company must commit to purchase certain minimum quantities. In August 2002, we agreed with Cree on a framework for purchases through September 2007. The Company is obligated to purchase a minimum quantity of usable material on a quarterly basis if Cree meets certain minimum quality levels. For each quarter during the period beginning January 2003 and ending September 2007, the Company has committed to purchase between \$525,000 and \$2,100,000 of raw material depending upon the quality of material received. If Cree's material quality is consistent with that received in 2002, which has been better than the quality produced in previous years, future purchases are expected to be at the high end of this range. If the Company does not meet the minimum quarterly purchase commitment, the Company will be obligated to pay Cree an unused capacity charge for the idle growers. This charge will not be greater than \$110,000 in any given quarter.

During 2002, 2001, and 2000, the Company made purchases from Cree of approximately \$5.5 million, \$1.2 million, and \$12.0 million, respectively, for SiC materials and research and development costs.

## 10. Selected Quarterly Data (Unaudited)

	Quarters Ended			
	3/31	6/30	9/30	12/31
<b>Year Ended December 31, 2002</b>				
Net sales	\$ 4,150,146	\$ 4,075,602	\$ 3,180,043	\$ 5,107,724
Gross profit	2,111,192	2,442,701	2,209,767	3,162,930
Net income	500,210	637,787	572,304	7,698,136
Basic net income per share	0.04	0.05	0.04	0.58
Diluted net income per share (1)	0.04	0.05	0.04	0.56
<b>Year Ended December 31, 2001</b>				
Net sales	\$ 2,899,984	\$ 2,462,732	\$ 2,138,435	\$ 4,003,978
Gross profit	1,637,285	1,378,643	1,259,512	2,092,059
Net income	247,174	359,044	161,220	457,297
Basic & diluted net income per share	0.03	0.03	0.01	0.03

(1) During the quarter ended December 31, 2002, the Company recorded a one-time \$6.7 million non-operating and non-cash addition to earnings due to the expected realization of deferred tax assets.

## 11. Subsequent Event

From January 1, 2003 to March 19, 2003, the Company repurchased 80,300 shares of common stock at an average cost of \$4.82 per share. Of this amount 50,000 shares were purchased from an affiliate of Chester L. F. Paulson, a director of the Company, at a purchase price of \$4.80 per share.

Schedule II

Charles & Colvard, Ltd.

Valuation and Qualifying Accounts

Year ended December 31	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Collections of Accounts Previously Written Off	Deductions/ Write Offs	Balance at End of Period
<b>Allowance for Doubtful Accounts</b>					
2002	\$ 275,000	\$ —	\$ 1,611	\$ 136,611 <sup>(1)</sup>	\$ 140,000
2001	\$ 320,000	\$ —	\$ 5,914	\$ 50,914 <sup>(1)</sup>	\$ 275,000
2000	\$ 70,000	\$ 301,562	\$ —	\$ 51,562 <sup>(1)</sup>	\$ 320,000
<b>Reserve for Excess Inventory</b>					
2002	\$ 635,000	\$ —	\$ —	\$ 405,000 <sup>(2)</sup>	\$ 230,000
2001	\$ 770,000	\$ —	\$ —	\$ 135,000 <sup>(2)</sup>	\$ 635,000
2000	\$ 242,115	\$ 527,885	\$ —	\$ —	\$ 770,000
<b>Allowance for Returns</b>					
2002	\$ 105,000	\$ 5,000 <sup>(3)</sup>	\$ —	\$ —	\$ 110,000
2001	\$ 150,000	\$ —	\$ —	\$ 45,000 <sup>(4)</sup>	\$ 105,000
2000	\$ 66,000	\$ 84,000 <sup>(3)</sup>	\$ —	\$ —	\$ 150,000
<b>Lower of Cost or Market Inventory Reserve</b>					
2002	\$ —	\$ 400,000 <sup>(5)</sup>	\$ —	\$ —	\$ 400,000

(1) Amounts in 2000 are accounts written off as uncollectible. During 2001, there was \$15,685 of accounts written off as uncollectible and a \$35,229 decrease to the allowance to reflect the estimated collectibility of receivables. During 2002, there was \$71,611 of accounts written off as uncollectible and a \$65,000 decrease to the allowance to reflect the estimated collectibility of receivables.

(2) Adjustments to reserve to reflect estimated net realizable value of remaining inventory.

(3) Charged against sales.

(4) Adjustments to allowance; credit to sales.

(5) Charged against Cost of Goods Sold

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

**Part III**

**Item 10. Directors and Executive Officers of the Registrant**

**Item 11. Executive Compensation**

**Item 12. Security Ownership of Certain Beneficial Owners and Management**

**Item 13. Certain Relationships and Related Transactions**

The information called for in items 10 through 13 is incorporated by reference from our definitive proxy statement relating to our annual meeting of shareholders, which will be filed with the Securities and Exchange Commission within 120 days after the end of fiscal 2002.

**Item 14. Controls and Procedures**

*(a) Evaluation of disclosure controls and procedures*

Within 90 days prior to the date of this report, the Company's Chief Executive Officer and the Chief Financial Officer evaluated the effectiveness of the Company's disclosure controls and procedures in accordance with Rule 13a-14 under the Exchange Act. Based on their evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the Company's disclosure controls and procedures enable the Company to record, summarize and report in a timely manner the information that the Company is required to disclose in its Exchange Act reports.

*(b) Changes in internal controls*

There were no significant changes in the Company's internal controls or in other factors that could significantly affect these controls subsequent to the date of the evaluation referred to in (a) above.



**Part IV**

**Item 15. Exhibits, Financial Statement Schedules, and Reports on Form 8-K**

(a) (1) and (2) Financial statements and financial statement schedule—the financial statements, financial statements schedule, and report of independent accountants are filed as part of this report (see Index to Financial Statements at Part II Item 8 on page 30 of this Form 10-K).

(a) (3) The following exhibits have been or are being filed herewith and are numbered in accordance with Item 601 of Regulation S-K:

<u>Exhibit Number</u>	<u>Description</u>
3.1	Amended and Restated Articles of Incorporation of C3, Inc. which is hereby incorporated by reference to Exhibit 3.1 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333-36809).
3.2	Articles of Amendment of C3, Inc., as filed with the Secretary of State of North Carolina on February 23, 1999 which hereby is incorporated by reference to Exhibit 3.2 to the Annual Report on Form 10-K of C3, Inc. for the fiscal year ended December 31, 1998.
3.3	Amended and Restated Bylaws of C3, Inc. which is hereby incorporated by reference to Exhibit 3.2 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333- 36809).
3.4	Articles of Amendment to the Company's Articles of Incorporation, as filed May 17, 2000 which is hereby incorporated by reference to Exhibit 3.4 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended June 30, 2000.
4.1	Specimen Certificate of common stock which is hereby incorporated by reference to Exhibit 4.1 to the Annual Report on Form 10-K of C3, Inc. for the fiscal year ended December 31, 1998.
4.2	Form of Representative's Warrant which is hereby incorporated by reference to Exhibit 4.2 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333- 36809).
4.3	Rights Agreement dated as of February 22, 1999 between C3, Inc. and First Union National Bank as Rights Agent, including the Form of Rights Certificate as Exhibit A which is hereby incorporated by reference to Exhibit 4.3 to the Annual Report on Form 10-K of C3, Inc. for the fiscal year ended December 31, 1998.
10.11	Amended and Restated Exclusive Supply Agreement, dated June 6, 1997, between Cree Research, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.11 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333-36809).*
10.12	Development Agreement, dated as of June 6, 1997, between Cree Research, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.12 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333-36809).*
10.13	Letter Agreement, dated July 14, 1997, between Cree Research, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.13 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333-36809).*

- 10.14 Letter Agreement, dated January 31, 1996, between Cree Research, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.14 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333-36809).\*
- 10.15 1996 Stock Option Plan of C3, Inc. (as amended October 27, 1997) which is hereby incorporated by reference to Exhibit 10.15 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333-36809).+
- 10.16 1997 Omnibus Stock Plan of C3, Inc. which is hereby incorporated by reference to Exhibit 10.16 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333- 36809).+
- 10.20 Agreement, dated September 24, 1997, between John M. Bachman, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.20 to the Registration Statement on Form S-1 of C3, Inc. (File No. 333-36809).\*
- 10.22 1997 Declaration of Amendment to 1997 Omnibus Stock Plan of C3, Inc. which is hereby incorporated by reference to Exhibit 99.3 to the Registration Statement on Form S-8 of C3, Inc. (File No. 333-43613).+
- 10.23 Supplemental Development Agreement, dated January 8, 1998, between Cree Research, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.23 to the Annual Report on Form 10-K of C3, Inc. for the fiscal year ended December 31, 1997.\*
- 10.24 Letter Agreement, dated January 8, 1998, between Cree Research, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.24 to the Annual Report on Form 10-K of C3, Inc. for the Fiscal year ended December 31, 1997.\*
- 10.25 Amended and Restated Development Agreement, dated July 1, 1998 between Cree Research, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.25 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended June 30, 1998.\*
- 10.26 Letter Agreement dated, July 14, 1998, between Cree Research, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.26 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended June 30, 1998.\*
- 10.28 First Amendment to Agreement, dated March 23, 1998 between John M. Bachman, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.28 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended September 30, 1998.\*
- 10.29 Second Amendment to Agreement, dated September 28, 1998 between John M. Bachman, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.29 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended September 30, 1998.\*
- 10.30 1998 Declaration of Amendment to 1996 Stock Option Plan of C3, Inc. which is hereby incorporated by reference to Exhibit 10.30 to the Annual Report on Form 10-K of C3, Inc. for the fiscal year ended December 31, 1998. +
- 10.31 1998 Declaration of Amendment to 1997 Omnibus Stock Plan of C3, Inc., which is hereby incorporated by reference to Exhibit 10.31 to the Annual Report on Form 10-K of C3, Inc. for the fiscal year ended December 31, 1998. +
- 10.32 Employment Agreement, dated March 1, 1999, between Robert Thomas and C3, Inc., which is hereby incorporated by reference to Exhibit 10.32 to the Annual Report on Form 10-K of C3, Inc. for the fiscal year ended December 31, 1998. +

- 10.34 Letter Agreement, dated May 3, 1999 between Cree Research, Inc. and C3, Inc., which is hereby incorporated by reference to Exhibit 10.34 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended March 31, 1999. \*
- 10.35 Licensing Agreement, dated October 10, 1998, between C. Eric Hunter and C3, Inc., which is hereby incorporated by reference to Exhibit 10.35 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended March 31, 1999. \*
- 10.36 Third Amendment to Agreement, dated June 16, 1999, between John M. Bachman, Inc. and C3, Inc., which is hereby incorporated by reference to Exhibit 10.36 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended June 30, 1999. \*
- 10.37 Fourth Amendment to Agreement, dated October 5, 1999, between John M. Bachman, Inc. and C3, Inc., which is hereby incorporated by reference to Exhibit 10.37 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended September 30, 1999. \*
- 10.39 Letter Agreement dated December 22, 1999 between Cree, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.39 to the Annual Report on Form 10-K of C3, Inc. for the year ended December 31, 1999.\*
- 10.40 Letter Agreement dated March 16, 2000 between Stuller Settings, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.40 to the Annual Report on Form 10-K of C3, Inc. for the year ended December 31, 1999.\*
- 10.41 Letter Agreement dated March 15, 2000 between The Bell Group, d/b/a Rio Grande and C3, Inc. which is hereby incorporated by reference to Exhibit 10.41 to the Annual Report on Form 10-K of C3, Inc. for the year ended December 31, 1999.\*
- 10.42 Letter Agreement dated May 14, 2000 between Cree, Inc. and C3, Inc. which is hereby incorporated by reference to Exhibit 10.42 to the Quarterly Report on Form 10-Q of C3, Inc. for the quarter ended March 31, 2000.\*
- 10.43 2000 Declaration of Amendment to 1996 Omnibus Stock Plan of C3, Inc. which is hereby incorporated by reference to Exhibit 10.43 to the Annual Report on Form 10-K of Charles & Colvard, Ltd. for the year ended December 31, 2000.+
- 10.44 2000 Declaration of Amendment to 1997 Omnibus Stock Plan of C3, Inc. which is hereby incorporated by reference to Exhibit 10.44 to the Annual Report on Form 10-K of Charles & Colvard, Ltd. for the year ended December 31, 2000.+
- 10.45 Letter Agreement dated December 7, 2000 between Cree, Inc. and Charles & Colvard, Ltd. which is hereby incorporated by reference to the Exhibit 99.2 of the Company's Current Report on Form 8-K dated January 9, 2001.\*
- 10.46 Fifth Amendment to Agreement, dated December 29, 2000 between John M. Bachman, Inc. and Charles & Colvard, Ltd., which is hereby incorporated by reference to Exhibit 10.46 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended March 31, 2001.\*
- 10.47 Charles & Colvard, Ltd. Fiscal Year 2001 Executive Compensation Plan which is hereby incorporated by reference to Exhibit 10.47 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended June 30, 2001.+

- 10.48 Employment Agreement between James R. Braun, CFO and Charles & Colvard, Ltd. which is hereby incorporated by reference to Exhibit 10.48 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended June 30, 2001.+
- 10.49 Letter Agreement dated July 2, 2001 between Cree, Inc. and Charles & Colvard, Ltd. which is hereby incorporated by reference to Exhibit 10.49 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended September 30, 2001.\*
- 10.50 Letter Agreement dated March 8, 2002 between Cree, Inc. and Charles & Colvard, Ltd., which is hereby incorporated by reference to Exhibit 10.50 to the Annual Report on Form 10-K of Charles & Colvard, Ltd. for the year ended December 31, 2001.\*
- 10.51 Letter Agreement dated April 2, 2002 between JewelNet Corporation d/b/a K&G Creations and Charles & Colvard, Ltd. which is hereby incorporated by reference to Exhibit 10.51 to Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended March 31, 2002.\*
- 10.52 Sixth Amendment to Agreement, dated April 9, 2002 between John M. Bachman, Inc. and Charles & Colvard, Ltd., which is hereby incorporated by reference to Exhibit 10.52 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended March 31, 2002.\*
- 10.53 Executive Compensation Plan for Fiscal Year 2001 as Amended on May 20, 2002, which is hereby incorporated by reference to Exhibit 10.53 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended June 30, 2002.+
- 10.54 Letter Agreement dated August 5, 2002 between Cree, Inc. and Charles & Colvard, Ltd., which is hereby incorporated by reference to Exhibit 10.50 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the Quarter ended September 30, 2002.\*
- 10.55 Salary Continuation Agreement, dated July 15, 2002 between Barbara L. Mooty, Vice President of Brand Identity and Industry Relations, and Charles & Colvard, Ltd. which is hereby incorporated by reference to Exhibit 10.51 to the Quarterly Report on Form 10-Q of Charles & Colvard, Ltd. for the quarter ended September 30, 2002.+
- 10.56 Salary Continuation Agreement dated October 1, 2002 between Dennis Reed, Vice President of Sales, and Charles & Colvard, Ltd. +
- 10.57 Executive Compensation Plan for Fiscal Year 2001, as Amended on February 13, 2003. +
- 21.1 Schedules of Subsidiaries
- 23.1 Consent of Deloitte & Touche LLP
- 99.1 Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 99.2 Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

\* The registrant has requested that certain portions of this exhibit be given confidential treatment.

+ Denotes a management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Charles & Colvard, Ltd.

By: /s/ ROBERT S. THOMAS

Date: 3/19/03

\_\_\_\_\_  
**Robert S. Thomas, President & CEO**

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

By: /s/ ROBERT S. THOMAS

Date: 3/19/03

\_\_\_\_\_  
**Robert S. Thomas  
President & Chief Executive Officer  
(Principal executive officer)**

By: /s/ JAMES R. BRAUN

Date: 3/20/03

\_\_\_\_\_  
**James R. Braun  
Vice President of Finance & Chief Financial Officer  
(Principal financial and accounting officer)**

By: /s/ WALTER J. O'BRIEN

Date: 3/18/03

\_\_\_\_\_  
**Walter J. O'Brien  
Director**

By: /s/ CHESTER L. F. PAULSON

Date: 3/18/03

\_\_\_\_\_  
**Chester L. F. Paulson  
Director**

By: /s/ FREDERICK A. RUSS

Date: 3/20/03

\_\_\_\_\_  
**Frederick A. Russ  
Director**

By: /s/ GEORGE A. THORNTON, III

Date: 3/20/03

\_\_\_\_\_  
**George A. Thornton, III  
Director**

I, Robert S. Thomas, certify that:

1. I have reviewed this annual report on Form 10-K of Charles & Colvard, Ltd.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors:
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

March 19, 2003

*/s/ ROBERT S. THOMAS*

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**Robert S. Thomas**  
**President & Chief Executive Officer**

I, James R. Braun, certify that:

1. I have reviewed this annual report on Form 10-K of Charles & Colvard, Ltd.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors:
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

March 20, 2003

/s/ JAMES R. BRAUN

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**James R. Braun**  
Vice President of Finance & Chief Financial Officer

SALARY CONTINUATION AGREEMENT

THIS SALARY CONTINUATION AGREEMENT (the "Agreement") is made and entered into effective as of October 1, 2002 by and between Charles & Colvard, Ltd., a North Carolina company with its principal office at 3800 Gateway Boulevard, Suite 311, Morrisville, North Carolina, 27560 (the "Company"), and Dennis M. Reed, an individual currently residing in Cary, North Carolina ("Employee").

Statement of Purpose

Employee is presently employed by the Company as Vice President of Sales. Employee and the Company desire to provide for continued salary payments to Employee in the event Employee is terminated by the Company without cause, all subject to the terms and conditions of this Agreement.

Therefore, in consideration of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and Employee agree as follows:

1. Salary. The annual salary of Employee is \$ 150,000 (the "Initial Annual Salary") to be paid in accordance with the Company's payroll practices as in existence from time to time.
2. Salary Continuation. In the event Employee is terminated by the Company within eighteen months of Employee's October 1, 2002 date of hire for any reason other than Just Cause (as defined in Section 3 below), the Company shall pay to Employee, for a period of twelve (12) months following such termination, the Initial Annual Salary, in accordance with the Company's normal payroll practices.
3. Termination for Just Cause. The Company shall have the right to terminate the Employee's employment under this Agreement at any time without cause, which termination shall be effective immediately, but shall be subject to Section 2 of this Agreement. In the event the Employee's employment is terminated for Just Cause, the Employee shall have no right to receive compensation under this Agreement for any period after such termination other than compensation or other benefits already accrued and owing to Employee. Termination for "Just Cause" shall include termination for the Employee's personal dishonesty, gross incompetence, willful misconduct, breach of a fiduciary duty involving personal profit, intentional failure to perform stated duties, willful violation of any law, rule, regulation (other than traffic violations



or similar offenses), written Company policy or final cease-and-desist order, conviction of a felony or of a misdemeanor involving moral turpitude, unethical business practices in connection with the Company's business, misappropriation of the Company's assets (determined on a reasonable basis), disability or material breach of any other provision of this Agreement. The determination of whether "Just Cause" exists for termination shall be made by the Board of Directors of the Company in its sole discretion. For purposes of this section, the term "disability" means the inability of Employee, due to the condition of her physical, mental or emotional health, to satisfactorily perform the duties of her employment hereunder for a continuous three month period; provided further that if the Company furnishes long term disability insurance for the Employee, the term "disability" shall mean that continuous period sufficient to allow for the long term disability payments to commence pursuant to the Company's long term disability insurance policy.

4. **Change of Control.** In the event of a Change of Control of the Company at any time after the date hereof, Employee may voluntarily terminate employment with Company up until six (6) weeks after the Change of Control for "Good Reason" and, subject to Section 6, (y) be entitled to receive in a lump sum (i) any compensation due but not yet paid through the date of termination and (ii) in lieu of any further salary payments from the date of termination to the end of the then existing term, an amount equal to the Initial Annual Salary times 2.99, and (z) shall continue to participate in the same group hospitalization plan, health care plan, dental care plan, life or other insurance or death benefit plan, and any other present or future similar group employee benefit plan or program for which officers of the Company generally are eligible, or comparable plans or coverage, for a period of two years following termination of employment by the Employee, on the same terms as were in effect either (A) at the date of such termination, or (B) if such plans and programs in effect prior to the Change of Control of Company are, considered together as a whole, materially more generous to the officers of Company, then at the date of the Change of Control. Any equity based incentive compensation (including but not limited to stock options, SARs, etc.) shall fully vest and be immediately exercisable in full upon a Change in Control, notwithstanding any provision in any applicable plan. Any such benefits shall be paid by the Company to the same extent as they were so paid prior to the termination or the Change of Control of Company.

"Good Reason" shall mean the occurrence of any of the following events without the Employee's express written consent:

(i) the assignment to the Employee of duties inconsistent with the position and status of the Employee with the Company immediately prior to the Change of Control;

(ii) a reduction by the Company in the Employee's pay grade or base salary as then in effect, or the exclusion of Employee from participation in Company's benefit plans in which he previously participated as in effect at the date hereof or as the same may be increased from time to time during the Term;

(iii) an involuntary relocation of the Employee more than 50 miles from the location where the Employee worked immediately prior to the Change in Control or the breach by the Company of any material provision of this Agreement; or

(iv) any purported termination of the employment of Employee by Company which is not effected in accordance with this Agreement.

A "Change of Control" shall be deemed to have occurred if (i) any person or group of persons (as defined in Section 13(d) and 14(d) of the Securities Exchange Act of 1934) together with its affiliates, excluding employee benefit plans of the Company, becomes, directly or indirectly, the "beneficial owner" (as defined in Rule 13d-3 promulgated under the Securities Exchange Act of 1934) of securities of the Company representing 20% or more of the combined voting power of the Company's then outstanding securities; or (ii) during the then existing term of the Agreement, as a result of a tender offer or exchange offer for the purchase of securities of the Company (other than such an offer by the Company for its own securities), or as a result of a proxy contest, merger, consolidation or sale of assets, or as a result of any combination of the foregoing, individuals who at the beginning of any year period during such term constitute the Company's Board of Directors, plus new directors whose election by the Company's shareholders is approved by a vote of at least two-thirds of the outstanding voting shares of the Company, cease for any reason during such year period to constitute at least two-thirds of the members of such Board of Directors; or (iii) the shareholders of the Company approve a merger or consolidation of the Company with any other corporation or entity regardless of which entity is the survivor, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or being converted into voting securities of the surviving entity) at least 60% of the combined voting power of the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation; or (iv) the shareholders of the

Company approve a plan of complete liquidation or winding-up of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets; or (v) any event which the Company's Board of Directors determines should constitute a Change of Control.

5. Employee's Right to Payments. In receiving any payments required pursuant to this Agreement, Employee shall not be obligated to seek other employment or take any other action by way of mitigation of the amounts payable to the Employee hereunder, and such amounts shall not be reduced or terminated whether or not the Employee obtains other employment.

6. Reduction in Agreement Payments. Notwithstanding anything in this Agreement to the contrary, if any of the payments provided for under this Agreement (the "Agreement Payments"), together with any other payments that the Employee has the right to receive (such other payments together with the Agreement Payments are referred to as the "Total Payments"), would constitute a "parachute payment" as defined in Section 280G(b)(2) of the Internal Revenue Code of 1986, as amended (the "Code") (a "Parachute Payment"), the Agreement Payments shall be reduced by the smallest amount necessary so that no portion of such Total Payments would be Parachute Payments. In the event the Company shall make an Agreement Payment to the Employee that would constitute a Parachute Payment, the Employee shall return such payment to the Company (together with interest at the rate set forth in Section 1274(b)(2)(B) of the Code). For purposes of determining whether and the extent to which the Total Payments constitute Parachute Payments, no portion of the Total Payments the receipt of which Employee has effectively waived in writing shall be taken into account.

7. Entire Agreement. This Agreement contains the entire agreement of the parties with respect to the subject matter of this Agreement and supersedes any prior agreements between them, whether written or oral.

8. Waiver. The failure of either party to insist in any one or more instance, upon performance of the terms and conditions of this Agreement, shall not be construed as a waiver or a relinquishment of any right granted hereunder or of the future performance of any such term or condition.

9. Notices. Any notice to be given under this Agreement shall be deemed sufficient if addressed in writing and delivered personally, by telefax with receipt acknowledged, or by

registered or certified U.S. mail to the address first above appearing, or to such other address as a party may designate by notice from time to time.

10. Severability. In the event that any provision of any paragraph of this Agreement shall be deemed to be invalid or unenforceable for any reason whatsoever, it is agreed such invalidity or unenforceability shall not affect any other provision of such paragraph or of this Agreement, and the remaining terms, covenants, restrictions or provisions in such paragraph and in this Agreement shall remain in full force and effect and any court of competent jurisdiction may so modify the objectionable provision as to make it valid, reasonable and enforceable.

11. Amendment. This Agreement may be amended only by an agreement in writing signed by each of the parties hereto.

12. Arbitration. Any controversy or claim arising out of or relating to this Agreement, or breach thereof, shall be settled by arbitration in Raleigh, North Carolina in accordance with the expedited procedures of the Rules of the American Arbitration Association, and judgment upon the award may be rendered by the arbitrator and may be entered in any court having jurisdiction thereof.

13. Governing Law. This Agreement shall be governed and construed in accordance with the laws of the State of North Carolina. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts located in North Carolina for the purposes of any suit, action or other proceeding contemplated hereby or any transaction contemplated hereby.

14. Benefit. This Agreement shall be binding upon and inure to the benefit of and shall be enforceable by and against the Company, its successors and assigns, and Employee, her heirs, beneficiaries and legal representatives. It is agreed that the rights and obligations of Employee may not be delegated or assigned except as may be specifically agreed to by the parties hereto.

*[Signature page to follow]*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement to be effective as of the day and year first above written.

CHARLES & COLVARD, LTD.

By: /s/ ROBERT S. THOMAS

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**Robert S. Thomas, President**

EMPLOYEE

/s/ DENNIS M. REED

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**Dennis M. Reed**

**CHARLES & COLVARD, LTD.**  
**2001 EXECUTIVE COMPENSATION PLAN,**  
**AS AMENDED AND RESTATED EFFECTIVE FEBRUARY 13, 2003**  
**PLAN SUMMARY**

1. Purpose. The purpose of the 2001 Executive Compensation Plan, as amended and restated effective May 20, 2002 and February 13, 2003 (the "Plan"), is to provide selected key employees of Charles & Colvard, Ltd. (the "Company") with incentive awards in the form of cash payments and/or bonus option grants (each, an "award" and collectively, "awards") based upon attainment of performance goals, thereby promoting a closer identification of the participants' interests with the interests of the Company and its shareholders, and further stimulating such participants' efforts to enhance the efficiency, profitability, growth and value of the Company. The Plan was adopted in fiscal year 2001 and may continue in effect for future years, as modified by the Compensation Committee (the "Committee") of the Board of Directors (the "Board") or by the Board in its or their discretion. (For the purposes herein, the "Committee" shall be interpreted to mean the Board if in fact the Board takes the indicated action.)
2. Eligibility. Key employees of the Company selected by the Committee shall be eligible to participate (each, a "participant"). Eligible participants shall be selected to participate on an annual or other periodic basis as determined by the Committee. For the 2003 plan year, the key employees eligible to participate in the Plan shall be the Chief Executive Officer, Chief Financial Officer, Vice President of Sales, Vice President of Manufacturing, Vice President of Brand Development and Industry Relations, Director of Marketing, Director of Domestic Sales, Director of International Sales, Director of Information Technology and such other key employees as may be selected by the Committee to participate in the Plan; provided, however, that the Committee shall have sole discretion to determine eligibility for Plan participation and participation in the Plan for any single plan year shall not guarantee eligibility to participate in any other plan year. Nothing contained in the Plan or the terms of any award will be construed as conferring upon any participant the right to continue in the employment of the Company or as imposing upon the Company the obligation to continue to employ a participant. Awards granted under the Plan may not be assigned or transferred by a participant to any other person or entity. (For the purposes of the Plan, a "plan year" shall coincide with the particular fiscal year of the Company.) A participant must be employed by the Company at December 31 of the applicable plan year to be eligible for a bonus for that plan year.
3. Administration of the Plan. The Plan will be administered by the Committee. The Committee is vested with the authority to determine eligibility, grant awards and establish and modify performance criteria. In addition, without limiting the foregoing, the Committee has full authority in its discretion to take any action with respect to the Plan including, without limitation, the authority (i) to determine all matters relating to

awards, including selection of individuals to be granted awards, the types of awards, the number of shares of the Company's common stock (the "Common Stock"), if any, subject to an award, and all terms, conditions, restrictions and limitations of an award; and (ii) to construe and interpret the Plan and any instruments evidencing awards granted under the Plan, to establish and interpret rules and regulations for administering the Plan and to make all other determinations deemed necessary or advisable for administering the Plan. All determinations of the Committee with respect to the Plan will be final and binding on the Company and all persons having or claiming an interest in any award granted under the Plan. No member of the Committee shall be liable while acting as administrator for any action or determination made in good faith with respect to the Plan or any award.

4. Nature of Awards. Awards granted under the Plan may consist of cash bonuses and/or bonuses in the form of option grants ("option bonuses"). The terms of option bonuses will be governed by the terms of the 1997 Omnibus Stock Plan of C3, Inc., as amended (the "1997 Plan"), or any other stock incentive plan which may apply to such option bonuses and shall be subject to the terms and conditions of such plan and the respective award agreement.
5. Determination of Awards. The Committee will establish those performance goals (each, a "goal") which shall apply to the determination of awards, if any, to be made with respect to a participant for any plan year. A participant's ability to earn an award for a particular plan year will be based on the Company's attainment of the goals for that plan year. The goals and any other factors which may apply with respect to the grant of awards during a plan year shall be determined by the Committee and may differ from the goals applicable in other plan years; provided, however, that, unless the Committee determines otherwise, all awards which may be earned by Plan participants during any particular plan year will be determined based on the same goals.
6. Determination of Cash Bonuses.
  - (a) General. The Company shall establish a cash bonus pool (the "cash bonus pool"), which will be used to fund cash awards earned under the Plan. The cash bonus pool will be funded in the event that the Company achieves its annual operating goals for the particular plan year, which for 2003 shall consist of the operating income goal ("income goal") and carat shipments goal ("shipment goal") as set out in the Company's annual business plan, as approved by the Board. The maximum cash bonus to be earned in any plan year by a participant is \$500,000 per year during the first three years of employment with the Company, \$1,000,000 per year during the next succeeding three years of employment with the Company and \$2,500,000 per year thereafter.

- (b) 2003 Plan Year. For the 2003 plan year, the provisions which follow shall apply with respect to the award of cash bonuses; provided, however, that the Committee shall have full discretion to modify the goals and any other performance or other factors applicable to the determination of Plan awards for any subsequent plan year and shall not be bound by the provisions applicable for the 2003 plan year.
- (i) Following the 2003 plan year, if the Committee determines that the income goal has been met, five percent (5%) of the Company's operating income will be contributed to the cash bonus pool from which cash bonuses for the 2003 plan year may be distributed.
  - (ii) If both the income goal and the shipments goal have been met at the end of the 2003 plan year, an additional five percent (5%) of the Company's operating income will be added to the cash bonus pool.
  - (iii) If both the income goal and the shipments goal have been met at the end of the 2003 plan year, fifteen percent (15%) of all pre-bonus, operating income in excess of the income goal will be added to the cash bonus pool for the 2003 plan year.
  - (iv) If the income goal is not met at the end of the 2003 plan year, the Committee (based on recommendations by the CEO) may in its discretion determine what amount, if any, will be contributed to the cash bonus pool and be payable to any eligible participant.
  - (v) The cash bonus pool if earned and payable will be paid 35% to the CEO and 16.25% to each of the CFO, Vice President of Manufacturing, Vice President of Sales and Vice President of Brand Development and Industry Relations.
  - (vi) The Sales and Marketing Directors, who are eligible for cash commission payments, and the Director of Information Technology, who participates in the quarterly bonus pool for non-officer employees, will not participate in cash bonuses, if any, in 2003.

7. Determination of Option Bonuses.

- (a) General. The Company shall establish an option bonus pool (the "option pool") which will be used to fund option awards earned under the Plan. Options from the option pool shall be awarded in the event the Company achieves its income goal for the particular year. Nothing in the terms of the Plan shall limit the authority of the Company to grant stock options or other stock-based awards under the 1997 Plan or other applicable plan.



- (b) 2003 Plan Year. For the 2003 plan year, the provisions which follow shall apply with respect to the award of option bonuses; provided, however, that the Committee shall have full discretion to modify the goals and any other performance or other factors applicable to the determination of Plan awards for any subsequent plan year and shall not be bound by the provisions applicable for the 2003 plan year.
- (i) For the 2003 plan year, the option bonus pool shall consist of options for 150,000 shares of the Common Stock.
  - (ii) If the income goal has been met at the end of the 2003, the option pool will be distributed as follows: 40,000 options to the CEO, 20,000 options to each of the CFO, Vice President of Manufacturing, Vice President of Sales and Vice President of Brand Development and Industry Relations, 9,000 options to the Director of Information Technology and 7,000 options to each of the Director of Marketing, Director of Domestic Sales and Director of International Sales. Any options granted will have an option price equal to the closing sales price on the last trading day immediately prior to the Company's public announcement of the 2003 financial results, will vest immediately and will be exercisable over ten years.
  - (iii) If the income goal is not met at the end of the 2003 plan year, the Committee (based on recommendations by the CEO) may in its discretion determine the option grants, if any, that will be awarded to any eligible participant.
8. Timing of Awards. Unless the Committee determines otherwise, cash bonuses will be distributed as soon as practical following the completion of the annual audit for the respective preceding fiscal year by the Company's independent accountants. Except to the extent that the terms of the 1997 Plan (or other applicable plan) provide otherwise, and unless the Committee determines otherwise, option bonuses will be granted as of the last trading day immediately preceding the public announcement of the Company's financial performance for the respective preceding fiscal year.
9. Option Bonus Adjustments. Option bonuses will be adjusted proportionately in the event of any stock splits or similar adjustments occurring after the adoption of the Plan and prior to the end of fiscal year 2003 and may be subject to further adjustment in the event of any stock splits or other capital adjustments which occur after the end of the fiscal year, subject to the terms of the 1997 Plan or other applicable plan and the Committee's discretion thereunder.
10. Proration of Awards. To the extent a participant is employed by the Company for less than the full fiscal year, the bonus to which the participant is otherwise entitled shall be prorated to reflect the percentage of the fiscal year that the participant was employed by the Company.

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11. Amendment. The Plan and any award granted under the Plan may be amended or terminated at any time by the Committee; provided, however, that (i) amendment or termination of an outstanding award may not, without the consent of the participant, adversely affect the rights of the participant with respect to such award; and (ii) approval of an amendment to the Plan by the shareholders of the Company shall be required in the event shareholder approval of such amendment is required by applicable law.

SCHEDULE OF SUBSIDIARIES

Charles & Colvard, Ltd. (Registrant), a North Carolina Corporation

Wholly-owned Subsidiary:

Charles & Colvard (HK) Ltd., a Hong Kong Corporation

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in Registration Statement No. 333-43613 of C3, Inc. on Form S-8 and in Registration Statement No. 333-100883 of Charles & Colvard, Ltd. on Form S-8 of our report dated February 7, 2003, appearing in the Annual Report on Form 10-K of Charles & Colvard, Ltd. for the year ended December 31, 2002.

/s/ DELOITTE & TOUCHE LLP  
Raleigh, North Carolina  
March 26, 2003

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO SECTION 906  
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Charles & Colvard, Ltd. (the "Company") on Form 10-K for the period ending December 31, 2002 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert S. Thomas, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15 (d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the Company.

*/s/ ROBERT S. THOMAS*

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**Robert S. Thomas**  
**President and Chief Executive Officer**  
**March 19, 2003**

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO SECTION 906  
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Charles & Colvard, Ltd. (the "Company") on Form 10-K for the period ending December 31, 2002 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James R. Braun, Vice President of Finance and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. (S) 1350, as adopted pursuant to (S) 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15 (d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the Company.

*/s/ JAMES R. BRAUN*

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**James R. Braun**  
Vice President of Finance and Chief Financial Officer  
March 20, 2003