# SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# FORM 20-F

(Mark O	ne)
	REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
	OR
X	ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	For the fiscal year ended December 31, 1998.
	OR
	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 (No Fee Required)
	For the transition period from to
	Commission File Number: 0-17212
	QSOUND LABS, INC. (Exact name of registrant as specified in its charter)
	Alberta, Canada (Jurisdiction of incorporation or organization)
	#400, 3115 – 12 <sup>th</sup> Street N.E. Calgary, Alberta T2E 7J2 CANADA Tel (403) 291-2492 Fax (403) 250-1521 (Address of principal executive offices)
	World Wide Web site www.qsound.com
Securitie	s registered or to be registered pursuant to Section 12(b) of the Act:
Title of	each class Name of each exchange on which registered

None

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

#### Common Shares - without nominal or par value.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None.** Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

#### Common Shares at December 31, 1998: 24,017,986

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 <u>X</u> No \_\_\_\_\_

Indicate by check mark which financial statement item the registrant has elect to follow.

Item 17 X Item 18

#### PART 1

#### SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

Certain statements in this Report constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1993 and Section 21E of the Securities Exchange Act of 1934. Any forward-looking statements made herein are made pursuant to the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among others, the following: risks associated with the commercialization of the Company's technologies, uncertainties relating to product development and commercial introduction, the Company's history of operating losses and uncertainty of future profitability, uncertainty of access to additional capital, rapid technological change and competition; uncertainty regarding patents and proprietary rights, manufacturing uncertainties and others.

# ITEM 1. DESCRIPTION OF BUSINESS

#### General

QSound Labs, Inc. (the "Company") develops, markets and distributes its patented, proprietary audio enhancement signal processing QSOUND® technologies in the computer multimedia, consumer electronics, home video game, arcade video game and professional audio industries. QSOUND technologies, all of which are compatible with speakers and headphones, are:

-Q3D<sup>™</sup> interactive positional audio. Q3D 2.0 for Pentium and MMX processors is fully compatible with Microsoft's DirectSound and provides environmental modeling capabilities;

-QSURROUND<sup>™</sup> virtual surround for playback of Digital Versatile Disk ("DVD") multi-channel audio over both stereo and multiple speaker systems. In 1998 the Company introduced new QSURROUND related technologies QSOUND Matrix Decoder/Virtualizer and QSOUND Multiple Speaker System;

-QXPANDER<sup>™</sup> audio enhancement for playback over stereo speakers; and

-jointly owned algorithms which include binaural localization for use in digital hearing aids.

In 1998 the Company began an expansion of its business focus to include electronic commerce by developing an affiliate marketing program and by increasing emphasis on sales of downloadable software over the Internet through strategic relationships with companies including RealNetworks Inc. and broadcast.com. In June 1999 the Company announced the acquisition of an enabling electronic storefront technology for World Wide Web merchants from Virtual Spin Inc.

The Company derives its revenues from:

-the licensing of QSOUND to semiconductor companies, PC multimedia and consumer electronics OEM's, and video game developers and platform manufacturers;

-sales of QSOUND enhanced chips (which are manufactured under license by semiconductor companies) to PC multimedia and consumer electronics OEM's;

-sales of downloadable software products over the Internet through third parties and on the Company's website; and

-licensing of the Company's binaural localization technology for hearing aids.

# A) <u>3D Audio Industry</u>

#### 3D Audio Industry Background

"3D audio" is the name commonly used for sound reproduction enhancement, which simulates natural hearing over two speakers, or headphones. Sound waves which are processed using 3D audio seem to emanate from all around the listener, providing a rich and immersive sound experience. Stereo sound reproduction development began during the 1930's and stereo equipment became available to consumers during the 1950's. Since that time stereo has become the audio standard. One of stereo's main limitations is its inability to reproduce a natural sound environment. Instead, all stereo sounds seem to emanate from in front of the listener, creating an artificial and flat hearing environment. Researchers embarked on a quest to improve sound reproduction to achieve more natural hearing of sound playback. Although progress was made in the search for 3D audio during the 1960's, the mathematical models which were developed required too much processing power to be of any practical use.

In the late 1980's the Company developed its fundamental Q3D sound positioning technology and subsequently has added complementary and improved technologies (see <u>QSOUND 3D Audio Technologies</u> below). Since the early 1990's, a number of other companies have developed and are marketing and distributing their own 3D audio technologies.

#### 3D Audio Industry Current Status

Existing 3D audio technologies can be classified in three categories, namely stereo audio enhancement, 3D interactive positional audio and 3D "surround sound".

During 3D audio's emergent stage, stereo expansion was the technology of choice for manufactures of stereo playback products. Stereo expansion, which expands stereo sounds outside of the bounds of stereo speakers but which does not have any capabilities to move specific sounds, is inexpensive and easy to implement. The primary users of stereo enhancement are manufacturers of multimedia computers and of consumer electronics products such as stereo systems, TV's, VCR's and set-top boxes.

3D positional audio, which moves specific sounds to specific locations, is used primarily by multimedia PC OEM's and PC soundcard manufacturers, by home and arcade video game developers, by manufacturers of home and arcade video game hardware platforms and by professional sound studios in music recordings, movies and television programs.

3D "surround sound" is targeted to multi-speaker entertainment systems. New multi-channel formats for consumer multimedia and entertainment systems, such as Dolby Digital<sup>™</sup> (AC3<sup>™</sup>) and MPEG2, encode multi-channel (up to six) audio streams for playback over multiple speakers. Most existing 3D surround sound technologies process decoded Dolby Digital and MPEG2 audio streams so that sound played back over two speakers creates the illusion of multiple speaker playback. The Company's surround sound technologies also create a surround effect from ordinary stereo material, enhance decoded Dolby Digital and MPEG2 audio streams, and add surround sound over headphones. Chip manufacturers, and product manufacturers and OEM's of DVD-based computer and entertainment systems, are using 3D surround sound in their products.

## **QSOUND 3D Audio Technologies**

## a) <u>QSOUND Technologies</u>

In the late 1980's, the Company's team of scientists and audio professionals developed a powerful set of custom software tools to perform test signal generation and sound analysis and modelling, and to carry out statistical data analysis. Concurrently, an intense research program modelling soundwave propagation from loudspeakers, and an extensive series of listening experiments, were undertaken. In order to derive the appropriate mathematical formulae needed to localize specific sounds in specific locations, test signals which had been processed with localization algorithms were presented to human listeners through stereo speakers in a controlled environment. Using the Company's custom software tools, various characteristics of the test signals and processing algorithms were adjusted and listener responses were captured on a custom data entry system. Over 500,000 listening tests using a variety of

subjects were performed resulting in the development of Q3D signal processing algorithms which locate specific sounds precisely with no harmonic distortion or discoloration.

The QSOUND suite of technologies creates a rich and realistic sound experience by immersing a listener in simulated surround sound using only conventional stereo speakers, or stereo headphones. QSOUND is an encode only process in which the localization cues become an integral part of the audio stream and decoding effectively takes place in the listener's auditory perception system. Once encoded, the audio stream can be stored, distributed and replayed by virtually any means from vinyl to satellite, with QSOUND imaging intact. QSOUND is compatible with multiple speaker sound systems and customers can choose implementations which are fully compatible with monophonic sound reproduction systems.

Q3D is the Company's interactive sound positioning technology, which places specific sounds in specific locations outside of the bounds of stereo speakers. Q3D algorithms for headphone playback relocate and position sounds heard by a headphone user from within the listener's head to an external audio environment outside the listener's head. The second-generation Q3D 2.0, which the Company introduced in the fourth quarter of 1998, includes the features of QSOFT3D (described below) and may be configured for multiple speaker outputs in addition to standard stereo speakers, and includes QSound Environmental Modeling<sup>™</sup> (QEM<sup>™</sup>), a reverberation engine which is compatible with the Environmental Audio Extensions<sup>™</sup> (EAX<sup>™</sup>) API from Creative Labs, Inc. Q3D algorithms are ported to DSP platforms, included in custom chips for the PC market, included in QMIXER software tools used by video game developers, and used in professional audio editing hardware and software products.

QSOFT3D, a subset of Q3D, is a host-based software module, which provides interactive positional audio and includes a mixer. QSOFT3D does not require expensive external DSP hardware and runs entirely on the host processor. QSOFT3D is optimized for use on Pentium and MMX Pentium processors and is fully compatible with Microsoft's DirectSound 3D audio API. In addition to Q3D positional audio, QSOFT3D also provides universal (open) management of limited hardware resources and reduces CPU processing required for 3D audio.

QSURROUND provides virtual surround sound for audio played back over multiple speaker or two speaker entertainment systems. QSURROUND has been developed by the Company to take advantage of the DVD format, which enjoys enthusiastic support of the world's major electronics companies and is expected by many to become the new standard for music, video game and movie playback. Dolby Digital and MPEG2 are the current audio standards for DVD based personal computers and home entertainment systems. Using QSURROUND, decoded Dolby Digital, Dolby ProLogic<sup>™</sup> and MPEG2 multi-channel audio streams can be played back over only two speakers, while maintaining the illusion of a multi-speaker system through creation of phantom (or "virtual") speakers, thereby eliminating the need for additional speakers. QSURROUND algorithms which tailor specific effects for front and rear speakers for added depth and dimension, and which create a surround environment over headphones, have also been developed by the Company. QSURROUND has been certified by Dolby Laboratories for use with Dolby Digital and ProLogic. The QSURROUND algorithm has been ported to DSP platforms, analog chips, audio/video DVD decoders, MPEG2 video compression and decompression accelerator chips for DVD and has been included in host-based decoders.

In the fourth quarter of 1998 the Company introduced two new QSURROUND-related technologies, QSOUND Matrix Surround Decoder/Virtualizer (QMDV<sup>™</sup>) and QSOUND Multiple Speaker System (QMSS<sup>™</sup>). QMDV decodes stereo audio material which has been encoded using matrix surround encoding such as Dolby Pro-Logic, and virtualizes the decoded material to create a multiple speaker surround effect when the material is played back over stereo speakers. For three speaker systems, a centre channel output is available. QMSS processes stereo audio material and creates a distinctly different output for each speaker in multiple speaker systems.

QXPANDER processes existing pre-mixed stereo material to provide audio enhancement for audio played back over traditional two speaker stereo, and competes with other 3D audio companies in the stereo enhancement market segment. QXPANDER algorithms for headphones expand the soundfield of a headphone user to an external audio environment outside the listener's head. QXPANDER algorithms are incorporated in analog chips, which are manufactured by semiconductor companies and sold by these companies and by the Company to PC multimedia and consumer electronics OEM's, and in software products for Internet streaming audio and for audio editing.

#### b) Digital Hearing Aid Technologies

The Company and its joint venture partner the House Ear Institute, a leading hearing research institute based in Los Angeles, (collectively "HEAR"), have developed technologies for use in digital hearing aids. Digital hearing aids are miniaturized computers, which convert sound to a digital signal which can be processed to meet individual needs and then converted back to sound. The ability to program the hearing aid greatly reduces feedback and background noise and enables automatic adjustment to changing levels of sound in the environment. HEAR's binaural localization technology for use in digital hearing aids enhances directional hearing capacity while compensating for hearing impairment. The hearing-in-noise test technology ("HINT<sup>TM</sup>") developed by HEAR is a DSP based hardware/software system which is used to test hearing impairment in environments where background noise is high and in hearing-critical job situations.

## **QSOUND 3D Audio Business Activities**

## 1. OEM Licensing and Sales

The Company licenses Q3D, QSURROUND and QXPANDER to semiconductor companies, which manufacture and sell QSOUND enhanced chips to multimedia PC and consumer electronics OEM's. In certain instances the Company also has the right to purchase and resell these chips to OEM's. To a lesser degree, the Company licenses these technologies directly to multimedia computer and consumer electronics OEM's.

In 1998, the Company added Q3D 2.0 licensees Trident Microsystems Inc., Avance Logic, Inc., Fortemedia, Inc., VLSI Technology Inc. and L. G. Semicon Co. Ltd. to existing QSOFT3D licensees Yamaha Corporation, Aztech Systems Ltd., OPTi, Inc. and Sega Enterprises Ltd. The OPTi license has since been assigned to EcTiva Inc. a subsidiary of Creative Labs, Inc. All of these licensees are on a non-exclusive basis. The majority of these licensees, whose main focus is on chip sales to the PC industry, have agreed to pay per unit royalties and, in the majority of cases, have paid up-front engineering fees. Three licensees have entered into agreements for the payment of lump sum license fees, all of which have been received by the Company. Under the Company's agreement with VLSI, the Company and VLSI have agreed to jointly design and develop a PCI audio controller chip.

The Company has licensed QSURROUND on a non-exclusive basis to semiconductor companies Winbond Electronics Corporation and LuxSonor, Inc., software DVD decoder manufacturers Zoran Corporation, Mediamatics Inc. and Cyberlink, and hardware DVD decoder manufacturers Zoran, Samsung Electronics, Inc. Asahi Kasei Microsystems, Co. and Cirrus Logic, Inc. In May, 1999 the Company entered into a License Agreement with Seponix Corporation and Seiko/Nippon Precision Circuits for design, manufacture and distribution of a series of QSURROUND enhanced analog chips. These chips are manufactured by NPC and distributed by Seponix and NPC to Japanese companies and by the Company to non-Japanese companies. In June, 1999 the Company entered into an agreement with Mitsubishi Electric Corporation for design, manufacture and distribution of QSURROUND enhanced analog chips. Mitsubishi has the right to market and distribute these chips worldwide except in China and Hong Kong, where the Company has the right to sell these chips. Mitsumi Electric Co., Ltd. manufactures analog chips, which include QSURROUND and QMDV. Mitsumi has the right to market and distribute these chips in Japan, and the Company has the right to market and distribute these chips in Japan, and the Company has the right to market and distribute these chips in All of these companies have agreed to pay per unit royalties.

Mitsumi and Rohm Co. Ltd. manufacture QXPANDER enhanced analog chips. Mitsumi has the right to distribute their QXPANDER chips in Japan, Europe and Asia, and the Company has the right to these chips in the rest of the world. Mitsumi has agreed to pay per unit royalties to the Company. Rohm and the Company each have the right to distribute Rohm's QXPANDER chips worldwide to purchasers who enter into a license agreement with the Company. A license agreement entered into in 1996 with E-Zone Networks Inc. for use of QXPANDER in entertainment systems designed for fitness facilities was cancelled in June, 1999.

Q3D, QSURROUND and QXPANDER are shipped in PC's and PC peripherals including sound cards, speakers and monitors, in consumer electronics products including stereo systems, mini Hi-Fi systems, amplified and USB speakers, cassette recorders, home theatre systems, TV's and VCR's, and DVD players from OEM's including:

Acer Computer International, Inc. Addonics AIWA Ambit Atherton Aztech Systems Ltd. Best Union Boston Acoustics CHIC Daewoo Corporation HIS Hoontech IBM Corporation Jaton Labway Micron Midiland Quickshot Samsung Electronics, Inc. Sanyo Shark Sharp Shuttle Siemens Nixdorf VideoLogic Warpspeed Zoltrix

#### Hearing Aids

In March, 1993, the Company and the House Ear Institute entered into a development and license agreement with Starkey Laboratories, Inc., the world's largest manufacturer of custom in-the-ear hearing aids, for the development and licensing of DSP based binaural hearing aids which use HEAR's binaural localization technology. Design of the silicon chip for the digital hearing aid was delayed due to problems encountered by the chip manufacturer. Product introduction is expected in the third quarter of 1999. Starkey is responsible for its own development costs under the license agreement, including non-recurring engineering costs associated with chip design. Starkey has the exclusive right to market and distribute binaural hearing aids for a period of five years following commercial product availability, and thereafter, on a non-exclusive basis. Starkey paid two lump sum royalty payments to the Company and to House Ear, and has agreed to pay an advance royalty upon market-ready product availability and per unit royalties. Starkey has advised the Company that development of a second generation digital hearing aid will not proceed due to delays encountered on the project.

## 2. <u>Software Product Licensing and Sales</u>

#### **Downloadable Software Products**

The Company's iQfx<sup>™</sup> 3D audio plug-in, which has been developed specifically for use with RealNetworks Inc.'s RealPlayer G2<sup>™</sup> and RealPlayer G2 Plus<sup>™</sup> streaming media players. iQfx is based upon the Company's downloadable software product iQ<sup>™</sup>, which uses QXPANDER and includes 3D stereo and mono-to-stereo modes, and automatic mono-to-3D processing, for streaming audio over the Internet. QCreator<sup>™</sup> is a software application that allows users to add 3D audio effects to normal WAV or AIFF computer sound files.

The Company has also developed and distributes a suite of plug-in software modules for popular audio editing platforms. Q3D sound positioning and QXPANDER audio enhancement modules are available for Digidesign's® Pro Tools III® (QSYS/TDM<sup>TM</sup> and QX/TDM<sup>TM</sup>) and Sound Designer II® (QX/SDII<sup>TM</sup>), for Sound Forge<sup>TM</sup> from Sonic Foundry® (QTools/SF<sup>TM</sup>) and for DirectX® compatible PC digital audio editors (QTools/AX<sup>TM</sup>).

The Company distributes its downloadable software products and its UltraQ<sup>™</sup> stereo expansion add-on through partners such as RealNetworks, broadcast.com and spinner.com, through the Company's proprietary affiliate marketing program, and over the Company's website. Revenues from sales of these products are shared by the Company and its partners, and by affiliates who receive sales commissions.

#### Authoring Tools

The Company licenses QMIXER® software development tools to video game developers for PC and MAC platforms. QMIXER, which includes both speaker and headphone algorithms, provides true realtime interactive 3D sound positioning and bolsters or replaces audio acceleration as required. The Company's standard license arrangement for QMIXER calls for payment of a one-time per-title license fee. In addition, the Company also grants licenses for unlimited titles over a two-year term.

QMIXER licensees include Accolade, Activision, Capcom, Codemaster Software, Electronic Arts (US and UK), Fathom Pictures, Grolier, Imagitec, Interactive World Productions, Kuju Entertainment, Looking Glass Technologies, Microprose, Microsoft, Mindscape, Motion Factory, Overtime Sports, Philips Interactive, Remedy Entertainment, Simis Eidos, Singletrac, Softkey Multimedia, Sony, Psygnosis, Pumpkin Studios, Telstar, Electronics Studio, Velocity, Virgin Interactive, Virtual Adventures. QSOUND enhanced video games include "Terra Nova: Strike Force Centauri" (Looking Glass Technologies); "Spycraft: The Great Game", "Zork: Nemesis" and "Muppet Treasure Island" (Activision); and "Assault Rigs", "Chronicles of the Sword" and "Formula One Championship Racing" (Sony Psygnosis) and others.

The Company also has license agreements with entertainment system manufactures Sega of America, Inc, Sega Enterprises Ltd. (collectively "Sega") and Capcom Co. Ltd. The license with Sega, which was signed in 1994 for a five-year term, covers games for the Sega Saturn and Sega 32X platforms. Sega paid an advance royalty to the Company, against which future royalties are credited, and has agreed to pay per unit royalties. QSOUND-enhanced video game titles released by Sega include "Jurassic Park", "Rally Championship", "NiGHTS" and "Sonic R", among others.

The Company licensed QMIXER and the QSYSTEM to Capcom in 1997 for use in home and arcade video games, multimedia software and music recordings for a seven-year term. Capcom has paid a lump sum license fee to the Company. Since 1992 Capcom Co. Ltd. has used custom chips which include Q3D in arcade games including "Super Street Fighter II", "Slam Masters" and "Dungeons and Dragons". Capcom's use of these chips, which has been paid for by lump sum payments received previously, expires in the year 2000.

The Company supplies QSYSTEM units to professional sound studios for implementation of QSOUND in music recordings, television and radio programs, motion pictures and broadcast resulting in distribution of numerous QSOUND enhanced products. West Productions of Los Angeles currently uses two QSYSTEM's in the production of various television programs, including: "Millennium", "Ally McBeal", "The Practice" and "XFiles", for which West Productions in 1996 received an Emmy award for outstanding sound quality.

## B) <u>Electronic Commerce Industry</u>

## Electronic Commerce Industry Status

In recent years the Internet has grown rapidly, fuelled by development of the World Wide Web, rapid growth in consumer ownership of multimedia/PC's as well as other devices that provide access to the Web, and the dramatic increase of Web-based content and commerce applications. As a result the Internet has become an increasingly significant global medium for online commerce. According to Forrester Research, the total value of Internet commerce sales in 1998 was \$43 billion, and online sales are expected to increase to \$3.2 trillion in 2003. To take advantage of resultant emerging opportunities, the Company has announced the acquisition of an enabling electronic commerce storefront technology, has developed new technologies and has established strategic relationships with companies, which are well positioned in electronic commerce.

#### **Electronic Commerce Technologies**

#### Internet Store

The Internet Store, which is being acquired by the Company from Virtual Spin Inc. ("Virtual Spin"), is a World Wide Web based electronic commerce storefront technology that allows merchants to create a turnkey Internet storefront on an existing or new website, sell products and services through secure e-commerce facilities, and track sales information. (See **Virtual Spin Business Combination** below). Using the Internet Store software, merchants can create and manage an electronic storefront on a stand-alone website or by seamless integration into an existing website and implement a dynamic, virtual shopping cart for use by Internet Store customers to select and collect products and services. The Internet Store server technology provides support for credit card transaction processing, order management, fulfillment and shipping, and detailed sales reports. Virtual Spin commenced development of the Internet Store, which is in use by over 1000 merchants, in 1996.

## affiliateDirect

The Company is developing affiliateDirect, a Web-marketing referral system based upon the Company's affiliate marketing program, with completion expected in the third quarter of 1999. affiliateDirect will provide merchants with an ability to extend their market presence by offering products and services through affiliated websites. Features of affiliateDirect include support for multi-level marketing programs, the ability to customize commission structures, automated affiliate sign-up and realtime activity tracking.

#### Electronic Commerce Business Opportunities

The Internet Store is licensed by Virtual Spin directly and through distributors to merchants and the Company intends to continue this distribution. Merchants pay fees for set-up of their electronic storefronts as well as monthly webhosting and support fees. In addition, the Company is in the process of integrating affiliateDirect with the Internet Store and intends to market and license the combined technologies to third party owners of portals and affinity malls. Revenues from these licenses are expected to include an up front license fee, royalties based upon percentage of mall revenues, and fees for technical support services. At the date of this Report the Company has entered into agreements with two companies for license of the combined technologies on the foregoing basis. The Company also intends to license affiliateDirect to third parties on a stand alone basis.

## Intellectual Property Rights and Proprietary Information

The Company's technologies and products are covered by a variety of intellectual property protections including patent, copyright, trade secret and trademark laws. However, there can be no assurance that competitors will not be able to produce non-infringing technologies and products or that third parties will not assert infringement claims against the Company.

The Company holds seventeen patents in the United States, including three patents which cover the fundamental technology applicable to the Company's 3D audio positional and audio enhancement technologies. Three patents cover the binaural hearing aid technology developed by the Company and the House Ear Institute. At the date of this Report, an additional eight patent applications for QSOUND complementary and improved technologies have been filed. Patent applications have been made in twenty-two foreign countries and a number of foreign patents have been granted. In November, 1998 the Court of Appeals for the Federal Circuit ruled that sound enhancement chips distributed by Spatializer Audio Laboratories Inc. do not infringe the Company's patents. (See Item 3 of this Report).

The Company's key trademarks, including QSOUND, the stylized "Q" logo and iQ are registered in the United States and in various foreign countries. The Company has filed trademark applications for many of its trademarks in the United States and internationally, and carries on a trademark protection program on an ongoing basis for new trademarks.

## Equipment

The Company owns computers, software, electronics equipment, studio and audio equipment and electronics laboratory and testing equipment, all of which is used by the Company in the development of the Company's technologies and products. All of this equipment is located at the Company's head office in Calgary, Alberta. Computers and software which the Company will acquire upon closing of the Virtual Spin business combination will be located at QCommerce's head office in Seattle, Washington. (See Virtual Spin Business Combination below). The Company also owns World Wide Web servers which the Company uses to host its website, and which are located mainly off-site. Inventory primarily consisting of QXPANDER chips, UltraQ's and QSYSTEM's is also housed at the Company's Calgary office, and warehoused off-site.

#### Employees

At December 31, 1998, the Company employed 34 persons in the conduct of its business, as compared with 34 persons employed and 3 persons engaged by contract on a full-time basis at December 31, 1997. At June 15, 1999, the Company has 36 full-time personnel, of whom 10 work in the area of research, product development and engineering support, 13 provide administrative services including promotional material design and production, in-

house technical support and PC/web support and 13 provide marketing and sales services for the Company. The Company expects to add 21 new employees, all of whom will be employed directly by QCommerce, upon completion of the Virtual Spin Business Combination. (See **Virtual Spin Business Combination** below).

# Competition

a) <u>3D Audio Industry</u> The 3D audio industry is highly competitive, with several companies currently producing 3D sound systems and products in one or more of the currently existing market categories. The Company's main competitors include Spatializer Audio Laboratories, Inc., SRS Labs, Inc. and Aureal Semiconductor Inc. Certain major manufacturers of multimedia computers and peripherals, of consumer electronics products and of chips for use in the foregoing have developed or are in the process of developing their own 3D audio solutions for incorporation in their products. To a lesser extent, the Company also competes with sound enhancement and multiple speaker technologies for theatrical environments and consumer electronics products, such as THX®, DTS and various technologies offered by Dolby Laboratories.

b) <u>Electronic Commerce Industry</u> The electronic Commerce industry is evolving rapidly and is intensely competitive, with new companies, products and technologies emerging on an ongoing basis. Currently the Company's main competitors in the electronic storefront market include iCat, MerchandiZer, Intershop and Yahoo Store, and for affiliateDirect include LinkShare and BeFree. It is extremely likely that other companies will enter the market with new products and services similar to the Company's electronic commerce technologies, some of which may be more competitively priced, or which may have more attractive features or ease of use, than do the Internet Store or affiliateDirect.

Certain of the Company's competitors are well established companies with significantly greater resources than those of the Company. In order to compete effectively the Company will have to enhance existing and develop new technologies and products to meet emerging market needs on a timely and cost effective basis, and to achieve wide distribution of these technologies and products through effective marketing and sales, and competitive pricing. There is no assurance that the Company will be able to achieve these goals.

## Virtual Spin Business Combination

On June 14, 1999 the Company entered into a Reorganization Agreement with Virtual Spin ("Reorganization Agreement"), a private state of Washington corporation, for the acquisition of all of Virtual Spin's assets by and the assignment of Virtual Spin's business to, the Company's wholly owned State of Washington subsidiary formed on June 10, 1999, QCommerce Inc. (See <u>Electronic Commerce Industry</u> above). The primary asset owned by Virtual Spin is the Internet Store, a Web based electronic commerce storefront technology that allows merchants to create a turnkey Internet storefront on their website, sell products and services through secure electronic commerce facilities, and track sales information. The Company intends to account for the acquisition on a pooling of interests basis. At the date of the Reorganization Agreement, Virtual Spin had 21 full-time employees. The Company expects that the Virtual Spin business combination, which is subject to the approval of Virtual Spin's shareholders, will close early in the third quarter of 1999 ("Closing").

As consideration under the Reorganization Agreement, the Company has agreed to issue to Virtual Spin 1,575,327 common shares of the Company ("Shares"). The Shares will be distributed to Virtual Spin shareholders and Virtual Spin will be liquidated within thirty days of Closing. The Company has agreed to file a registration statement with the Securities and Exchange Commission registering the Shares within thirty days of Closing.

Pursuant to the Reorganization Agreement, the Company also agreed to assume all of Virtual Spin's liabilities. The Company also agreed to issue 1,137,282 options to purchase common shares of the Company to Virtual Spin's employees in replacement of their options to purchase Virtual Spin shares held prior to the business combination. The options will be exercisable at the purchase price of \$3.06 per share, being the closing price of the Company's common shares on the Nasdaq SmallCap Market on June 14, 1999, will vest in accordance with vesting provisions contained in the original Virtual Spin option agreements, and will have expiry dates of not more than three years from the date of grant. The Company has also agreed to enter into employment agreements, on terms satisfactory to the Company, with Virtual Spin employees.

# History

## **Corporate**

The Company, incorporated under the laws of the Province of British Columbia on December 6, 1968, changed its name in August, 1986 from Ana Lake Mining to Archer International Developments Ltd. The Company's acquisition of QSOUND, which commenced in 1987 and was completed in 1988, resulted in a change in the management and the business of the Company. To reflect this change, the Company changed its name to Archer Communications, Inc. in April, 1989. In July, 1990, the Company moved its jurisdiction of incorporation from British Columbia to Alberta by reincorporating, by way of continuance, under the Business Corporations Act of Alberta. Coincident with the completion of the continuance, the Company increased its authorized capital by the creation of an unlimited number of common shares, an unlimited number of first preferred shares and an unlimited number of second preferred shares. In June, 1993, in recognition of the Company's focus on QSOUND, the Company changed its name to QSound Labs, Inc. The Company has a California subsidiary corporation, QSound Ltd., a subsidiary incorporated in the state of Washington on June 10, 1999 and wholly owned by QSound Ltd., QCommerce Inc., and two non-operating subsidiaries, QSound Electronics, Inc. incorporated in the state of Washington and QKidz, Inc. incorporated in the state of Alberta, Canada.

## **Financial**

The Company has financed its activities to date principally through the issuance of equity and debt securities. All amounts previously advanced to the Company pursuant to various loan agreements have been repaid or converted to common shares of the Company. A loan in the amount of \$702,000 US provided to the Company by Capcom in 1993 was repaid in March, 1997.

In December, 1996 the Company completed a private placement at the purchase price of \$1.85 U.S. per unit of 621,621 Series 2 First Preferred Shares and warrants to purchase 155,405 common shares and of 270,270 Series 3 First Preferred Shares and warrants to purchase 67,566 common shares. Each Series 2 and each Series 3 Preferred Share (collectively "Preferred Shares") was convertible, for a two year period, at the option of the holder into the greater of (i) one common share or (ii) the number of common shares equal to (x) \$2.31 U.S. divided by (y) the average between the closing bid and ask price of the common shares of the Company on the Nasdaq SmallCap Market for the five trading days immediately preceding the date of the notice of conversion, less a 20% discount. All of the Preferred Shares have been converted into 1,497, 609 common shares of the Company. 141,893 Series 2 warrants and 33,783 Series 3 warrants have been exercised, and 13,512 Series 2 warrants and 33,783 Series 3 warrants have been exercised.

## ITEM 2. DESCRIPTION OF PROPERTY

The Company's head office, including research facilities and a sound studio, is located at 400 – 3115 12<sup>th</sup> Street NE, Calgary, AB T2E 7J2 where the Company leases approximately 10,648 square feet of office space until October 31, 2003 at a rental rate of \$8,429 CDN. per month. The Company has the option to renew the lease for an additional two-year term at then prevailing market rates.

The Company's wholly owned California subsidiary, QSound Ltd., rents 1,754 square feet of office space at 2010 N. First Street, San Jose, California until June 30, 1999 at a rental rate of \$2,895 U.S. per month to December, 1997 and \$3,069 U.S. per month thereafter. Since July, 1998 the Company has subleased approximately 1550 square feet of this space to a third party at a rental rate of \$2,600 U.S. per month.

In September, 1998 the Company concluded the sale of the 25,000 square foot building, which formerly housed the Company's offices at 2748 – 37<sup>th</sup> Avenue NE, Calgary, Alberta for the sale price of \$635,116 U.S.

The registered and records offices of the Company maintained pursuant to the <u>Business Corporations Act</u> of Alberta, are located at the Company's head office at 400 – 3115 12<sup>th</sup> Street NE, Calgary, Alberta T2E 7J2.

## ITEM 3. LEGAL PROCEEDINGS

In October, 1994, the Company advised Matsushita Electronics Corporation ("MEC"), which manufactures integrated circuit chips for Spatializer that, in the view of the Company, the Spatializer chip infringes the QSOUND technology. In response, Spatializer, and its wholly-owned subsidiary corporation, Desper Products, Inc. ("Desper") initiated action in the United States District Court, Central District of California (Case No. CV 94-7276 WDK) against the Company for a declaratory judgement of non-infringement and invalidity, and subsequently sought damages. The Company filed a counterclaim against Spatializer and Desper, alleging infringement and seeking damages. In August, 1996 the District Court ruled that Spatializer's audio processor does not infringe the Company's QSOUND technology, and the Court of Appeals for the Federal Circuit ("CAFC") upheld the ruling of the District Court in November, 1998. No further action in connection with this litigation has been taken by the Company or by Spatializer.

The Company is involved in the defence of two claims for damages, which relate to commercial matters. The Company believes that it has good defences on the merits to these claims; however, as with any litigation there can be no assurance of a favourable outcome.

# ITEM 4. CONTROL OF REGISTRANT

To the knowledge of the Company, the Company is not directly or indirectly owned or controlled (i) by another corporation or (ii) by any foreign government and there are no persons or groups known to the Company who beneficially own more than 10 percent of the Company's issued and outstanding common shares. At the date of this Report, the total number of common shares owned by the officers and directors of the Company, as a group is as set forth in the following table:

Identity of Person or Group	Amount Owned	Percent of Class
All officers and directors as a group (6 persons) <sup>1</sup>	1,799,600	7.36%

<sup>1</sup> Assumes the exercise of presently exercisable options to purchase common shares granted by the Company. (See Items 11 and 12 of this Report).

## ITEM 5. NATURE OF TRADING MARKET

The Company's common shares trade (since January, 1989) on The NASDAQ SmallCap Market under the symbol QSND (formerly QSNDF) and were listed (from January, 1990 to March, 1997) on The Toronto Stock Exchange under the symbol QSL (formerly AAZ). The Company voluntarily delisted its common shares from trading on The Toronto Stock Exchange effective March 7, 1997.

The high and low sales prices for the first full quarter of 1999, and for each of the four quarters of 1998 and 1997 for the Company's common shares on The NASDAQ SmallCap Market were as follows:

Quarter Endin	ng	<u>High (USD)</u>	Low (USD)		
Manak	1000	0.075	4 000		
March	1999	2.875	1.969		
December	1998	2.281	1.812		
September	1998	2.125	1.250		
June	1998	3.000	2.250		
March	1998	2.687	1.625		
December	1997	3.687	2.625		
September	1997	3.468	2.000		
June	1997	2.125	1.312		
March	1997	2.687	1.500		

The high and low sales (quoted in CDN dollars) of the Company's common shares from January 1 to March 7, 1997 on The Toronto Stock Exchange were as follows:

Quarter End	ding	High (CDN)	Low (CDN)			
March	1997	3.55	2.00			

At June 23, 1999, there were 24,434,186 common shares of the Company issued and outstanding. At such date, there were 1,440 shareholders of record within the United States who collectively held approximately 85% percent of the Company's outstanding common shares.

# ITEM 6. EXCHANGE CONTROLS AND OTHER LIMITATIONS AFFECTING SECURITY HOLDERS

There are no government laws, decrees or regulations in Canada which restrict the export or import of capital or which affect the remittance of dividends, interest or other payments to non-resident holders of the Company's common shares. However, any such remittance to a resident of the United States is generally subject to non-resident tax pursuant to Article X of the Canada-United States Income Tax Convention (1980). (For further information concerning such non-resident tax, see Item 7 of this Report.)

There are no limitations under the laws of Canada or the Province of Alberta, or in the Articles of Continuance of the Company, with respect to the right of non-resident or foreign owners to hold or vote the common shares of the Company. However, under the Investment Canada Act ("ICA"), the acquisition of control (as defined) of a Company carrying on a business in Canada (such as the Company) by a non-Canadian (as defined) is subject to review by Investment Canada, an agency of the Canadian Federal Government, in order to determine whether such acquisition is likely to be of benefit to Canada. ICA exempts certain small acquisitions (as defined) from the review procedure.

# ITEM 7 TAXATION

The following is a general summary only and should not be considered as income tax advice or relied upon for tax planning purposes.

## Canada

The following is a general summary of certain Canadian federal income tax considerations generally applicable to a holder of the Company's common shares who is not a resident of Canada for the purposes of the Income Tax Act (Canada) (the "Act") and who holds such common shares as capital property. The discussion does not address all potentially relevant federal income tax matters and it does not address consequences peculiar to persons subject to special provisions of federal income tax law.

This summary is based on a current provision of the Act and the regulations thereunder and the Company's understanding of the current administrative practices published by Revenue Canada, Customs, Excise and Taxation. This summary takes into account proposals to amend the Act announced prior to the date hereof (although no assurances can be given that such changes will be enacted in the form presented or at all), but does not otherwise take into account or anticipate any other changes in law, whether by judicial, governmental or legislative action or decision nor does it take into account any provincial, territorial, local or foreign tax considerations. Accordingly, holders and prospective holders of the Company's common shares should consult their own tax advisors about the federal, provincial, territorial, local and foreign tax consequences of purchasing, owning and disposing of such shares.

The Act provides in subsection 212(2) that dividends and other distributions which are deemed to be dividends and which are paid or credited or are deemed to be paid or credited by a Company that is a resident in Canada to a non-resident of Canada shall be subject to non-resident withholding tax equal to 25 percent of the gross amount of the dividend or deemed dividend. This rate of tax is subject to reduction if the provisions of a tax treaty between Canada and the country in which the recipient is resident provide for a lesser rate of tax.

Subsections 2(3) and 115(1) of the Act provide that a non-resident person is subject to tax in Canada at the rates generally applicable to residents of Canada on any "taxable capital gain" arising on the disposition of the shares of a

corporation which are listed on a prescribed stock exchange if such non-resident, together with persons with whom such non-resident does not deal at arm's length, owned 25 percent or more of the issued shares of any class of the capital stock of the corporation at any time in the five years immediately preceding the date of disposition of the shares. The taxable portion of a capital gain is equal to three-quarters of the amount by which the proceeds of disposition of such shares, net of any reasonable costs associated with the disposition, exceeds the adjusted cost base to the holder of the shares.

Provisions in the Act relating to dividend and deemed dividend payments and gains realized by non-residents of Canada who are residents of the United States are subject to the Canadian-United States Income Tax Convention (1980), as amended (the "1980 Convention").

Article X of the 1980 Convention provides that the rate of Canadian non-resident withholding tax on dividends paid to a corporation resident in the U.S. that beneficially owns at least 10 percent of the voting stock of the corporation paying the dividend shall not exceed 5 percent. Otherwise, and except as described below, the rate of non-resident withholding shall not exceed 15 percent of the dividend. Where the dividends are received by a resident of the United States carrying on business in Canada through a permanent establishment in Canada or by a person who performs independent personal services in Canada from a fixed base situated in Canada, and holding of the shares in respect of which the dividends are paid is effectively connected with that permanent establishment, the dividends are generally subject to Canadian tax as business profits or income from rendering such services and the 1980 Convention does not limit the tax payable on such income under the Act.

Article XIII of the 1980 Convention provides that gains realized by a United States resident on the disposition of shares of a corporation that is a resident of Canada may not be taxed in Canada unless the value of those shares is derived principally from real property situated in Canada or the shares form part of the business property of a permanent establishment which the resident of the United States has or had in Canada within the 12 month period preceding the date of disposition or if the shares pertain to a fixed base in Canada which is or was available within the 12 month period preceding the date of disposition for the purpose of performing independent personal services.

## **United States**

The following is a general discussion of certain possible United States federal income tax consequences, under current law, generally applicable to a U.S. Shareholder (as defined below) of the Company's common shares. This discussion does not address all potentially relevant federal income tax matters and it does not address consequences peculiar to persons subject to special provisions of federal income tax law, such as those described below as excluded from the definition of a U.S. Shareholder. In addition, this discussion does not cover any state, local or foreign tax consequences. (See "Canada" above).

The following discussion is based upon the sections of the Internal Revenue Code of 1986, as amended (the "Code"), Treasury Regulations, published Internal Revenue Service ("IRS") rulings, published administrative positions of the IRS and court decisions that are currently applicable, any or all of which could be materially and adversely changed, possibly on a retroactive basis, at any time. In addition, this discussion does not consider the potential effects, both adverse and beneficial, of recently proposed legislation which, if enacted, could be applied, possibly on a retroactive basis, at any time. The following discussion is for general information only and is not intended to be, nor should it be construed to be, legal or tax advice to any holder or prospective holder of the Company's common shares and no opinion or representation with respect to the United States federal income tax consequences to any such holder or prospective holder is made. Accordingly, holders and prospective holders of the Company's common shares should consult their own tax advisors about the federal, state, local, and foreign tax consequences of purchasing, owning and disposing of common shares of the Company.

#### U.S. Shareholders

As used herein, a "U.S. Shareholder" includes a holder of common shares who is a citizen or resident of the United States and a corporation or partnership created or organized in or under the laws of the United States or of any political subdivision thereof or a trust whose income is taxable in the United States irrespective of source or a trust subject to primary supervision of a court within the United States and control of a United States fiduciary as described in Section 7701 (a) (30) of the Code. This summary does not address the tax consequences to, and a U.S. Shareholder does not include persons subject to special provisions of, federal income tax law, such as tax-exempt

organizations, qualified retirement plans, individual retirement accounts and other tax-deferred accounts, financial institutions, insurance companies, real estate investment trusts, regulated investment companies, brokerdealers, non-resident alien individuals, persons or entitles that have a "functional currency" other than the U.S. dollar, shareholders who hold common shares as part of a straddle, hedging or a conversion transaction, foreign corporations and shareholders who acquire their shares through the exercise of employee stock options or otherwise as compensation for services. This discussion is limited to U.S. shareholders who own Company common shares as capital assets. This discussion does not address the consequences to a person or entity holding an interest in a shareholder or the consequences to a person of the ownership, exercise or disposition of any options, warrants or other rights to acquire common shares.

#### **Distributions on Common Shares**

U.S. Shareholders receiving dividend distributions (including constructive dividends) with respect to the Company's common shares are required to include in gross income for United States federal income tax purposes the gross amount of such distributions equal to the U.S. dollar value of such dividends on the date of receipt (based on the exchange rate on such date) to the extent that the Company has current or accumulated earnings and profits, without reduction for any Canadian income tax withheld from such distributions. Such Canadian tax withheld may be credited, subject to certain limitations, against the U.S. Shareholder's United States federal income tax liability or, alternatively, may be deducted in computing the U.S. Shareholder's United States federal taxable income by those who itemize deductions. (See more detailed discussion at "Foreign Tax Credit" below). To the extent that distributions exceed current or accumulated earnings and profits of the Company, they will be treated first as a return of capital up to the U.S. Shareholder's adjusted basis in the common shares and thereafter as gain from the sale or exchange of such shares. Preferential tax rate for long-term capital gains are applicable to a U.S. Shareholder, which is an individual, estate or trust. There are currently no preferential tax rates for long-term capital gains for an U.S. Shareholder, which is a corporation.

In the case of foreign currency received as a dividend that is not converted by the recipient into U.S. dollars on the date of receipt, a U.S. Shareholder will have a tax basis in the foreign currency equal to its U.S. dollar value on the date of receipt. Generally any gain or loss recognized upon a subsequent sale or other disposition of the foreign currency, including the exchange for U.S. dollars, will be ordinary income or loss. However, an individual whose realized gain does not exceed \$200 will not recognize that gain, to the extent that there are no expenses associated with the transaction that meet the requirement for deductibility as a trade or business expense (other than travel expenses in connection with a business trip) or as an expense for the production of income.

Dividends paid on the Company's common shares will not generally be eligible for the dividends received deduction provided to corporations receiving dividends from certain United States corporations. A U.S. Shareholder which is a corporation may, under certain circumstances, be entitled to a 70 percent deduction of the United States source portion of dividends received from the Company if such U.S. Shareholder owns shares representing at least ten percent of the voting power and value of the Company. The availability of this deduction is subject to several complex limitations, which are beyond the scope of this discussion.

## Foreign Tax Credit

A U.S. Shareholder who pays (or has withheld from distributions) Canadian income tax with respect to the ownership of the Company's common shares may be entitled, at the option of the U.S. Shareholder, to either a deduction or a tax credit for such foreign tax paid or withheld. Generally, it will be more advantageous to claim a credit because a credit reduces United States federal income taxes on a dollar-for-dollar basis, while a deduction merely reduces the taxpayer's income subject to tax. This election is made on a year-by-year basis and generally applies to all foreign income taxes paid by (or withheld from) the U.S. Shareholder during that year. There are significant and complex limitations which apply to the credit, among which is the general limitation that the credit cannot exceed the proportionate share of the U.S. Shareholder's United States income tax liability that the U.S. Shareholder's foreign source income bears to his or its world-wide taxable income. In the determination of the application of this limitation, the various items of income and deduction must be classified into foreign and domestic sources. Complex rules govern this classification process. There are further limitations on the foreign tax credit for certain types of income such as "passive income," "high withholding tax interest," "financial services income," "shipping income," and certain other classifications of income. Dividends distributed by the Company will generally constitute "passive income," or, in the case of certain U.S. Shareholders, "financial services income" for these purposes. The availability of the foreign

tax credit and the application of the limitations on the credit are fact specific and holders and prospective holders of common shares should consult their own tax advisors regarding their individual circumstances.

#### **Disposition of Common Shares**

A U.S. Shareholder will recognize gain or loss upon the sale of common shares equal to the difference, if any, between (i) the amount of cash plus the fair market value of any property received and (ii) the shareholders tax basis in the common shares. Preferential tax rates apply to long-term capital gains of U.S. Shareholder who are individuals, estates or trusts. This gain or loss will be capital gain or loss if the shares are a capital asset in the hands of the U.S. Shareholder, which will be long-term capital gain or loss if the Company's common shares are held for more than one year. Lower long-term capital gain rates will apply if the U.S. Shareholder has held the common shares for more than eighteen months. Deductions for net capital losses are subject to significant limitations. For U.S. Shareholders who are individuals, any unused portion of such net capital loss may be carried over to be used in later tax years until such net capital loss is thereby exhausted. For U.S. Shareholders which are corporations (other than corporations subject to Subchapter S of the Code), an unused net capital loss may be carried back three years from the loss year and carried forward five years from the loss year to be offset against capital gains until such net capital loss is thereby exhausted.

# ITEM 8. SELECTED FINANCIAL DATA

The following table sets forth certain selected consolidated financial information with respect to the Company for the periods indicated. It should be read in conjunction with Item 9 below and the Consolidated Financial Statements of the Company.

The Company's Financial Statements have been prepared in accordance with generally accepted accounting principles in Canada which, except as indicated in Note 10 to the Consolidated Financial Statements, are also, in all material respects, in accordance with generally accepted accounting principles in the United States.

#### Selected Financial Data (in United States Dollars)

		USD 1998		USD 1997		USD 1996		USD 1995		USD 1994
Revenues:										
Product sales Royalties & license Fees Rental and other Cost of product sales	\$ \$ \$ \$ \$ \$ \$ \$ \$	1,034,043 1,078,002 13,327 2,125,372 (283,352) 1,842,020	\$ \$ \$ \$ \$ \$ \$ \$	1,389,145 2,065,848 19,944 3,474,937 (711,344) <b>2,763,593</b>	\$ \$ \$ \$ \$ \$ \$ <b>\$</b>	1,849,527 1,525,850 15,452 3,390,829 (1,380,057) <b>2,010,772</b>	\$ \$ \$ \$ \$ \$ \$ \$	483,056 1,580,472 23,534 2,087,062 (404,942) <b>1,682,120</b>	\$ \$ \$ \$ <b>\$</b>	120,292 1,878,304 41,776 2,040,372 (71,416) 1,968,956
Expenses:	Ψ	1,042,020	Ψ	2,705,555	Ψ	2,010,772	Ψ	1,002,120	Ψ	1,300,330
Marketing Administration Product research & development Patent litigation Depreciation & Amortization Interest on long-term debt Foreign exchange (gain) loss Interest & other income Gain on sale of assets	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ <b>\$</b>	1,301,990 447,855 1,292,313 - 262,815 12,382 6,627 (93,664) (150,889) <b>3,079,429</b>	\$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$ <b>\$</b>	1,652,674 539,744 891,305 120,146 271,611 24,090 (102,464) (146,948) - <b>3,250,158</b>	\$\$\$\$\$\$\$\$\$\$\$	2,200,693 843,958 1,138,200 412,781 419,849 25,036 16,645 (60,952) - <b>4,996,210</b>	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,667,503 983,862 847,201 403,093 1,090,563 109,814 63,659 (113,080) - -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ <b>\$</b>	1,012,460 748,781 1,244,364 39,417 1,052,828 235,663 85,829 (65,529) - - <b>4,353,813</b>
Loss for the year	\$	(1,237,409)	\$	(486,565)	\$	(2,985,438)	\$	(3,370,495)	\$	(2,384,857)
Deficit, beginning of year	\$ (	(27,023,533)	\$ (2	26,536,968)	\$ (	23,551,530)	\$	(20,181,035)	\$	(17,796,178)
Repurchase of common shares	\$	(95,245)	\$	-	\$	-	\$	-	\$	-
Deficit, end of year	\$ (	(28,356,187)	\$ (2	27,023,533)	\$ (	26,536,968)	\$	(23,551,530)	\$	(20,181,035)
Loss per common shares	\$	(0.05)	\$	(0.02)	\$	(0.15)	\$	(0.19)	\$	(0.15)
Total assets	\$	4,799,937	\$	5,547,774	\$	5,207,692	\$	6,081,873	\$	5,003,383
Long term debt	\$	-	\$	205,562	\$	218,532	\$	228,406	\$	2,167,529

As computed in accordance with accounting principals generally accepted in the United States, loss per share and total assets are:

Loss	\$ (1,237,409)	\$ (678,994)	\$ (2,766,291)	\$ (2,581,458)	\$ (3,626,031)
Loss per share	\$ (0.05)	\$ (0.03)	\$ (0.13)	\$ (0.14)	\$ (0.24)
Total assets	\$ 4,799,937	\$ 5,547,774	\$ 5,207,692	\$ 5,222,506	\$ 3,387,991

No cash dividends have been declared or paid on common shares.

The amounts set forth in the table above are expressed in United States dollars.

# ITEM 9. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of the financial condition and results of operations of the Company for the three years ended December 31, 1998, 1997 and 1996 should be read in conjunction with the Consolidated Financial Statements of the Company and related Notes included therein as well as the information and data provided in Item 8 of this Report.

## **Results of Operations:**

The Company's Consolidated Financial Statements are prepared in accordance with generally accepted accounting principles in Canada. Except as disclosed in Note 10 to the Consolidated Financial Statements and as explained below, there are no material differences as pertains to these statements between accounting principles generally accepted in Canada and in the United States. The Company converted to measuring and reporting in United States currency on January 1, 1998.

#### Fiscal Years Ended December 31, 1998, 1997 and 1996

#### **Revenues:**

Revenues for 1998 were \$2,125,372 representing a decrease from revenues of \$3,474,937 in 1997. Royalty revenues decreased by \$987,846 due to lower sales in the OEM market. The delay in transition from ISA to PCI bus architecture affected positional audio implementations and the development by certain major chip companies of their own stereo enhancement technologies contributed to decreased QXPANDER licenses. Product sales decreased by \$355,102 due to continued lower sales of QXPANDER chips which began in 1997. Rental revenues decreased slightly to \$13,327 in 1998 from \$19,944 in 1997.

Revenues for 1997 were \$3,474,937 representing a slight increase from 1996 revenues of \$3,390,829. Product revenues decreased from \$1,849,527 in 1996 to \$1,389,145 in 1997 due primarily to lower sales of QXPANDER reflecting the trend in the PC industry of integrating software into audio controller chips rather than using single-function audio enhancement chips. This trend was responsible for a significant increase in royalty and license fee revenues for the year from \$1,525,850 in 1996 to \$2,065,848 in 1997. Rental revenues increased slightly from \$15,452 in 1996 to \$19,944 in 1997.

## Marketing Costs:

Marketing costs decreased from \$1,652,674 in 1997 to \$1,301,990 in 1998 due to further decreased expenditures for marketing consultants.

Marketing costs decreased from \$2,200,693 in 1996 to \$1,652,674 in 1997 due to decreased expenditures for trade shows and marketing consultants. In 1996 marketing costs were reclassified in the Company's 1997 Consolidated Financial Statements from \$1,887,741 as originally reported to \$2,200,693 due to re-allocation from administration expenses of wages and travel costs of certain employees who were carrying out sales and marketing functions.

#### Administration Costs:

General and administrative expenses decreased from \$539,744 in 1997 to \$447,855 in 1998 due to continued cost reduction measures.

General and administrative costs decreased significantly from \$843,958 in 1996 to \$539,744 in 1997, due mainly to cost cutting measures. 1996 administration costs were reclassified in the Company's 1997 Consolidated Financial Statements from \$1,156,910 as originally reported to \$843,958 due to re-allocation to marketing expense of salary and travel costs of certain employees who were carrying out sales and marketing functions.

## **Product Research and Development:**

Research and development costs increased from \$891,305 in 1997 to \$1,292,313 in 1998 due to increased use of consultants on the joint development project with VLSI and to new product development in-house.

Research and development costs decreased from \$1,138,200 in 1996 to \$891,305 in 1997 as a result of the Company's increased focus on licensing and distribution of existing technologies. Research and development costs were incurred primarily in connection with QSOFT3D and the digital hearing aid technologies, as well as ongoing research and development.

## Patent Litigation:

The Company did not incur any patent litigation costs in 1998 compared to \$120,146 in 1997. The 1997 costs were associated with the patent litigation with Spatializer (see "Legal Proceedings" in Item 1 of this Report), and no action was taken by the Company in this matter in 1998.

Costs associated with the appeal before the CAFC in the Spatializer litigation decreased significantly from \$412,781 in 1996 to \$120,146 in 1997 due to fewer court proceedings.

#### **Depreciation and Amortization:**

Depreciation and amortization costs decreased from \$271,611 in 1997 to \$262,815 in 1998 due to normal depreciation and amortization on reduced capital assets net book value.

Depreciation and amortization costs decreased significantly from \$419,849 in 1996 to \$271,611 in 1997 due to the fact that the majority of deferred costs were fully amortized early in 1997.

#### Interest on Long-Term Debt:

Interest on long term debt decreased from \$24,090 in 1997 to \$12,382 in 1998 due to the sale of the Company's head office building which resulted in repayment of the long-term debt.

Interest on long term debt was \$24,090 in 1997 compared to \$25,036 in 1996. The decrease was the result of the declining balance in connection with the mortgage on the Company's head office building.

## Foreign Exchange (Gain) Loss:

In 1998 the Company experienced a foreign exchange loss of \$6,627 compared to a gain of \$102,464 in 1997. In 1998 the Company converted to measuring and reporting in United States currency and therefore experienced fewer currency fluctuations.

In 1997 the Company had a foreign exchange gain of \$102,464 as compared to a foreign exchange loss of \$16,645 in 1996. The gain was due to the strength of United States currency in 1997.

#### Interest and Other Income:

Interest and other income decreased in 1998 to \$93,664 as compared to \$146,948 in 1997.

Interest and other income increased from \$60,952 in 1996 to \$146,948 in 1997 due primarily to gain on the sale of assets.

#### Gain on Sale of Assets:

The Company had a gain on sale of assets of \$150,889 resulting from the sale of its head office building. In 1996 and 1996 the gain on sale of assets was included in interest and other income.

## Liquidity and Capital Resources:

To date, the Company has not generated sufficient revenue to fund continued operations. The Company has financed its operations principally through the sale of equity and debt securities with additional resources provided from royalties (including advance royalties), development fees, and fees received in connection with the licensing of QSOUND. The Company anticipates that revenues from product sales, royalties, licensing arrangements and development fees, all related to QSOUND, and from licensing arrangements and royalties related to the Internet Store and affiliateDirect, and additional capital which the Company may raise through the issuance of equity and/or debt securities along with cash on hand, will be sufficient to enable the Company to carry out its business plan for 1999. However, there can be no assurance that any financing undertaken by the Company will be obtained on terms acceptable to the Company, if at all.

At December 31, 1998, the Company had \$2,125,613 in cash and short term deposits as compared to \$2,090,327 in 1997. 1998 revenues totalled \$2,125,372. The Company received \$1,235,985 from the exercise of options and warrants in 1998. Royalties received for the year ended December 31, 1998 were \$375,135. At year end the Company had finished goods inventory with a cost of \$225,706 consisting mainly of QXPANDER chips.

The Company's cash flow from operations during 1999 is expected to come from royalties and licensing fees from current licensees and from new licensing arrangements for Q3D, QSURROUND and QXPANDER, from revenues related to sales of QSURROUND and QXPANDER chips which are manufactured by third parties and sold by the Company, from royalties related to digital hearing aid chip sales, from revenue share and sales receipts related to sales of downloadable software application, and from the licensing fees and royalties relating to licensing of the Internet Store and affiliateDirect.

Cash resources at the end of the first quarter of 1999 are \$1,762,976 and current liabilities for the same period are \$146,311.

## Cash Flows:

Cash used in operations decreased from \$1,144,912 in 1997 to \$864,692 in 1998, due to the collection of accrued revenues. Historically the Company's primary source of capital has been cash provided by financing.

Cash used in operations decreased significantly from \$3,350,950 in 1996 to \$1,144,912 in 1997 due to a decrease in operating losses.

Cash provided by financing decreased in 1998 to \$892,036 from \$1,639,994 in 1997 due to a decrease in common share issuances and stock repurchase totalling \$334,737.

Cash provided by financing decreased in 1997 to \$1,639,994 from \$3,057,278 in 1996 due mainly to a decrease in common share issuances.

Cash used in investments decreased significantly in 1998 to a gain of \$7,942 as compared to \$354,747 used in 1997. This was primarily due to proceeds from sale of assets.

Cash used in investments increased from \$228,200 in 1996 to \$354,747 in 1997 due to increased equipment and computer purchases.

## Year 2000 Readiness Disclosure

The Company has completed an assessment of the Year 2000 readiness of its internal systems. At the date of this Report approximately eighty per cent of the software applications used by the Company, and approximately ninety per cent of the Company's computer systems, have been tested and are Year 2000 compliant. The remaining twenty per cent of software applications and ten per cent of computer systems, which have not been fully tested, are not mission critical systems. The Company estimates that its total costs to address Year 2000 compliance will be less than \$15,000.

The Company's downloadable software products and affiliateDirect software are Year 2000 compliant, and Virtual Spin has verified that the Internet Store software is Year 2000 compliant.

The Company is in the process of assessing the Year 2000 compliance of its major suppliers and customers. The Company cannot guarantee that these third parties will adequately address their Year 2000 issues, or that their systems will continue to function properly at the time of and after the Year 2000 date change.

The likely worst case scenario for the Company could be the disruption of chip supplies, delays in customer implementation of the Company's products and disruptions in receipt of royalties. The Company does not have a contingency plan with respect to potential Year 2000 failures of its major suppliers and customers and at the present time does not have plans to develop one. The Company cannot guarantee that the failure of these third parties to achieve Year 2000 compliance would not have a material adverse affect on the Company's future financial position or results of operations.

# ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF REGISTRANT

The following table identifies, as at June 23,1999, each director and executive officer of the Company, the year in which service with the Company commenced, and the respective capacities in which their services are provided.

<u>Name</u>	Period of Service Since	Position
David Gallagher	May,1989	President, Chief Executive Officer and a Director
George J. Folsey, Jr.	September, 1987	Director
James Bonfiglio	October, 1992	Director
Ian Tweedie	January, 1998	Director
Francis Munoz	April, 1999	Executive Vice President
Joanna Varvos	June, 1991	Corporate Secretary

## **Changes in Management**

In April, 1999 Mr. Munoz was appointed Executive Vice President of the Company responsible for software and service development, marketing and planning related to the Company's electronic commerce business.

## **Personal Information of Officers and Directors**

**David Gallagher** is President and Chief Executive Officer since June, 1992 and a director since June, 1991. Mr. Gallagher has been with the Company since 1989 and has acted as Vice-President, Finance and as Chief Financial Officer of the Company. Mr. Gallagher has over sixteen years experience in technology development and commercialization.

**George Folsey, Jr.**, a director, is an independent movie producer and produced films including "Trading Places", "Coming to America" and "Grumpier Old Men" as well as the Michael Jackson music video "Thriller". Mr.Folsey has been a member of the Board of Directors of the Company since 1988. Mr. Folsey is a graduate of Pomona College of California.

**James Bonfiglio**, a director, is a business consultant since April, 1995. From September, 1991 to April, 1995 Mr. Bonfiglio served as President and CEO of Kroy Inc., a multi-national corporation specializing in manufacture and distribution of presentation products, labelling, lettering and bar-code equipment and other speciality industrial products. Mr. Bonfiglio's business experience includes acting as President & CEO of Home America, Phoenix, Arizona, the largest independent appliance and electronic retail operation in southwestern U.S.A., in 1988 and 1989.

**Ian Tweedie,** a director, is President of Digital Armor, Inc., which has developed and markets a unique CD protection system on an international basis, since October 1996. Previously, from December, 1995, Mr. Tweedie acted as an independent business consultant and from December, 1991 to December, 1995 Mr. Tweedie was President and a director of Virtual Universe Corporation, a public company which has developed a computer-based telephone line communications switch.

**Francis Munoz** is Executive Vice President since April, 1999 and has thirty years of experience in the information technology industry. From January, 1997 to January, 1999 Mr. Munoz was General Manager, Metronet Solutions, for Metronet Communications Group Inc., a Calgary based, local exchange carrier with national operations which was purchased in March, 1999 by AT&T Canada. Previously, since 1991 Mr. Munoz was employed by Minerva Technologies Inc., a software development consulting company, most recently as Vice President, Business Development, where he created and developed the IT services outsourcing business unit which was subsequently acquired by Metronet.

**Joanna Varvos** is Corporate Secretary of the Company. Ms. Varvos is a barrister and solicitor, admitted to the Law Society of Alberta in 1979. Ms. Varvos has provided legal services to the Company since 1989.

There are no family relationships between any directors or officers of the Company. There are no arrangements or understandings between any director or officer of the Company and any other person pursuant to which the director or officer was selected, except for employment agreements between the Company and Messrs. Gallagher and Munoz.

# ITEM 11. COMPENSATION OF DIRECTORS AND OFFICERS

Remuneration paid or payable to directors and executive officers of the Company with respect to the fiscal year ended December 31, 1998 was \$218,278 for compensation paid to Mr. Gallagher and Ms. Varvos, and to Mr. Bonfiglio for consulting services. The Company's directors are not paid cash compensation for their services in their capacity as directors; however, directors are reimbursed for reasonable travel and lodging expenses incurred in the provision of such services and are granted options from time to time by the Company.

The Company has no pension, retirement or similar plans and none are proposed at present; accordingly no amounts have been set aside or reserved by the Company for such plans.

Further information concerning the compensation of certain officers and directors of the Company is incorporated by reference to the Summary Compensation Table under "Report on Executive Compensation" and the sections entitled "Report of the Compensation Committee" and "Employment Contracts" in the Company's Notice of Annual Meeting and Information Circular dated May 14, 1999, filed as part of the Company's Report on Form 6-K dated May 27, 1999.

# ITEM 12. OPTIONS TO PURCHASE SECURITIES FROM REGISTRANT OR SUBSIDIARIES

## Options

At June 23, 1999, there were outstanding options to purchase a total of 3,693,750 common shares of the Company of which a total of 1,630,500 presently exercisable options to purchase common shares of the Company were held by directors and officers, as a group. These options are exercisable at purchase prices which range from \$2.21 CDN to \$3.13 per share and have expiry dates which range from December 2, 1999 to April 21, 2005. As of June 23, 1999, other persons employed by or providing services to the Company hold presently exercisable options to purchase a total of 1,298,250 common shares. These options are exercisable at purchase prices which range from \$1.25 to \$3.50 per share and have expiry dates which range from July 27, 1999 to April 21, 2005.

The Company has agreed to grant 1,137,282 options to employees of Virtual Spin in connection with the acquisition of Virtual Spin by the Company. (See **Virtual Spin Business Combination** in Item 1 of this Report).

The Company may grant stock options to officers, directors, key employees and persons or companies providing ongoing services for the Company, pursuant to the Company's 1994 Stock Option Plan (the "1994 Plan"), adopted by the Company and approved by the shareholders of the Company in 1994, and pursuant to the Company's 1998 Stock Option Plan ("1998 Plan").

The Board of Directors or a Committee appointed by the Board may in its discretion from time to time grant options under the 1994 Plan and the 1998 Plan. In addition, under the 1998 Plan the Board or the Committee may delegate to an executive officer of the Company the authority to grant options to employees who are not insiders. The purchase price of common shares covered by each stock option under the 1994 Plan, and under the 1998 Plan for options granted by an executive officer, shall be not less their market value on the date on which the stock option was granted. The Board or the Committee may determine the exercise price of stock options under the 1998 Plan. The term of each stock option shall be determined by the Board or Committee when the option is granted, and shall not exceed ten years from the date of grant. Options may be exercised for a period of 30 days after termination of the optionee's employment, or the expiration of the term, whichever period is shorter. If an optionee should die while in the employment of the Company, his options may be exercised by the optionee's legal representative until the earlier of one year after the date of death or the expiration of the term. The foregoing 30 day and one year time periods may be increased by the Board of Directors. No options may be granted under the 1994 Plan to any employee if the number of shares reserved for issuance to that employee pursuant to options would exceed five percent of the Company's issued and outstanding common shares.

The Plan may be amended by the Board provided any such amendment may not adversely affect any outstanding option without the consent of the optionee and options granted under the Plan may be amended upon agreement with the optionee. Any material amendments, under the 1994 Plan must be approved by the Company's shareholders.

In the event there should be any subdivision or consolidation of the Company's common shares the price of shares then subject to each option is to be adjusted equitably so that the optionee's proportionate interest is maintained without change in the aggregate option price. If the Company is reorganized or merged with another corporation, provisions shall be made to continue any options then outstanding and to prevent their dilution or enlargement.

## Warrants

At June 23, 1999, there were outstanding warrants to purchase a total of 550,000 common shares of the Company. J&C Resources, Inc. holds warrants, issued in connection with a 1994 financing, to purchase 100,000 common shares at the exercise price of \$3.75 per share, exercisable until October 24, 1999. Warrants to purchase 50,000 common shares at the exercise price of \$2.19 per share were granted in 1996 to a consultant in connection with services rendered for the Company and expire on November 26, 2001. Warrants to purchase 400,000 common shares at exercise prices of \$2.00 per share for 200,000 warrants, \$2.50 per share for 100,000 warrants and \$3.00 per share for 100,000 warrants were granted in January, 1999 to a consultant in connection with services rendered for the Company 13, 2004.

# ITEM 13. INTEREST OF MANAGEMENT IN CERTAIN TRANSACTIONS

No director or officer had any other material transactions with the Company during the 1998 fiscal year except for compensation as an employee or consultant. (See Item 11 of this Report).

Except for immaterial advances in the ordinary course of business, which may have been outstanding, on a short-term basis, no director or officer of the Company or associate of such person was indebted to the Company during the 1998 fiscal year.

# <u>PART II</u>

# ITEM 14. DESCRIPTION OF SECURITIES TO BE REGISTERED

Not applicable.

# <u>PART III</u>

# ITEM 15. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

# ITEM 16. CHANGES IN SECURITIES AND CHANGES IN SECURITY FOR REGISTERED SECURITIES

Not applicable.

# ITEM 17. FINANCIAL STATEMENTS

The financial statements listed under Item 19(a) have been prepared in accordance with generally accepted accounting principles in Canada. Except as disclosed in Note 10 to the Consolidated Financial Statements, there are no material differences between applicable Canadian and United States generally accepted accounting principles.

# ITEM 18. FINANCIAL STATEMENTS

Not applicable.

# ITEM 19. FINANCIAL STATEMENTS AND EXHIBITS

- (a) Consolidated Financial Statements of QSound Labs, Inc. and subsidiaries:
  - 1. Auditor's Report to the Shareholders.
  - 2. Consolidated Balance Sheets December 31, 1998 and 1997.
  - 3. Consolidated Statements of Operations and Deficit Years ended December 31,1998, 1997 and 1996.
  - 4. Consolidated Statements of Changes in Financial Position Years ended December 31, 1998, 1997 and 1996.
  - 5. Notes to Consolidated Financial Statements Years ended December 31, 1998, 1997 and 1996.
- (b) Exhibits
- 3.33 Notice of Annual Meeting and Information Circular dated May 14, 1999. (Incorporated by reference to the Company's Report of Foreign Issuer on Form 6-K filed May 27, 1999.)

## SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Company certifies that it meets all of the requirements for filing on Form 20-F and has duly caused this Annual Report to be signed on its behalf by the undersigned, hereunto duly authorized.

QSound Labs, Inc.

<u>/S/ David Gallagher</u> David Gallagher President and Chief Executive Officer

Date: June 28, 1999