
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3/A
AMENDMENT NO. 4

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

(Exact name of registrant as specified in charter)

DELAWARE

*(State or other jurisdiction of
incorporation or organization)*

58-1954497

(I.R.S. Employer Identification No.)

**1940 Northwest 67th Place
Gainesville, Florida 32653
(352) 373-4200**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive office)

**DR. LOUIS F. CENTOFANTI
Chairman of the Board
Perma-Fix Environmental Services, Inc.
1940 Northwest 67th Place
Gainesville, Florida 32653
(352) 373-4200**

(Address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

**Irwin H. Steinhorn, Esquire
Conner & Winters, A Professional Corporation
One Leadership Square, Suite 1700
211 North Robinson
Oklahoma City, Oklahoma 73102
(405) 272-5711**

Approximate date of commencement of proposed sale to the public: **As soon as practicable after this Registration Statement becomes effective.**

If the only securities being registered on this form are being offered pursuant to a dividend or interest reinvestment plans, please check the following box: ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities

Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: []

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: []

If delivery of the prospectus is expected to be made pursuant to Rule 434, check the following box: []

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

CALCULATION OF REGISTRATION FEE

| Title of Each Class of Securities to be Registered | Number of Shares to be Registered | Proposed Maximum Offering Price Per Share | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee |
|---|--|--|--|-----------------------------------|
| Common Stock | 17,931,966 ⁽¹⁾ | \$ 2.45 ⁽²⁾ | \$43,933,316 ⁽³⁾ | \$4,041.87 ⁽⁴⁾ |

- (1) Includes (a) 4,010,638 shares which have been issued by the Company pursuant to a private placement; (b) 1,793,178 shares which have been issued pursuant to an exchange agreement; and (c) 12,128,150 shares issuable by the Company upon the exercise of various warrants having exercise prices ranging from \$1.20 to \$1.9688.
- (2) Estimated solely for the purposes of calculating the registration fee in accordance with Rule 457(c) and (g) on the basis of the average of the high and low price as quoted on the NASDAQ Small Cap Market on September 26, 2002.
- (3) Estimated in accordance with Rule 457(g) for the purpose of calculating the registration fee.
- (4) Previously paid.

Subject to Completion: Dated November 27, 2002

PROSPECTUS

PermaFix

environmental services

17,931,966 Shares

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Common Stock

This prospectus relates to the offer or sale of up to 17,931,966 shares of Perma-Fix Environmental Services, Inc. common stock, or the Shares, from time to time by the Selling Stockholders listed in this prospectus. We will not receive any proceeds from the sale of the Shares by the Selling Stockholders.

Our common stock is traded on the Nasdaq SmallCap Market under the symbol "PESI" and on the Boston Stock Exchange under the symbol "PES." On **November 26**, 2002, the closing price of our common stock as reported on the Nasdaq SmallCap Market was \$2.50.

The Company has agreed to pay all the costs and fees relating to the registration of the Shares covered by this prospectus. However, the Company will not pay any discounts, concessions, or commissions payable to underwriters, dealers, or agents incident to the offering of the Shares or the fees and expenses incurred by counsel for the Selling Stockholders.

**Investment in these securities involves a high degree of risk.
See "RISK FACTORS" beginning on page 2 of this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or passed upon the adequacy of this prospectus.
Any representation to the contrary is a criminal offense.**

The date of this prospectus is _____, 2002.

The information in this prospectus is not complete and may be changed. These securities may not be sold until the related registration statement filed with the SEC is effective. This prospectus is not an offer to sell these securities

and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

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ABOUT OUR BUSINESS

We are engaged, through our subsidiaries, in the following lines of business:

Industrial Waste Management Services

Our Industrial Waste Management Services include:

- * treatment, storage, processing, and disposal of hazardous and nonhazardous waste;
- * industrial waste and wastewater management services, including the collection, treatment, processing and disposal of hazardous and non-hazardous waste; and
- * various waste management services to certain governmental agencies.

These services are primarily conducted through six of our subsidiaries and through various locations within our government services group:

- * Perma-Fix Treatment Services, Inc. located in Tulsa, Oklahoma;
- * Perma-Fix of Dayton, Inc. located in Dayton, Ohio;
- * Perma-Fix of Ft. Lauderdale, Inc. located in Davie, Florida;
- * Perma-Fix of Orlando, Inc. located in Orlando, Florida;
- * Perma-Fix of South Georgia, Inc. located in Valdosta, Georgia;
- * Perma-Fix of Michigan, Inc. located in Detroit, Michigan; and
- * Perma-Fix Government Services headquartered in Tulsa, Oklahoma.

Nuclear Waste Management Services

Our Nuclear Waste Management Services include:

- * treatment, storage, processing and disposal of mixed waste (waste containing both low-level radioactive and hazardous waste); and
- * nuclear and low-level radioactive waste treatment, processing and disposal, which includes research, development, and on and off-site waste remediation and processing.

These services are primarily conducted through three of our subsidiaries:

- * Perma-Fix of Florida, Inc. located in Gainesville, Florida;
- * Diversified Scientific Services, Inc. located in Kingston, Tennessee; and
- * East Tennessee Materials and Energy Corporation located in Oak Ridge, Tennessee.

Consulting Engineering Services

Our Consulting Engineering Services include broad-scope environmental issues, including:

- * environmental management programs;
- * regulatory permitting;
- * compliance and auditing;
- * landfill design; and
- * field testing and characterization.

These services are primarily conducted through our subsidiary, Schreiber, Yonley & Associates, Inc., located in St. Louis, Missouri.

We have grown through both acquisitions and internal development. Our present objective is to focus on the operations, maximize profitability, and to continue the research and development of innovative technologies for the treatment of nuclear, mixed and industrial waste.

We service research institutions, commercial companies, public utilities, and governmental agencies nationwide. The distribution channels for services are through direct sales to customers or via intermediaries.

We were incorporated in the State of Delaware in December 1990. Our executive offices are located at 1940 N.W. 67th Place, Gainesville, Florida 32653, and our telephone number is (352) 373-4200. Our home page on the Internet is www.permafix.com. The information contained in our web site is not incorporated by reference in this prospectus.

RISK FACTORS

Prospective purchasers of the Shares pursuant to this prospectus should consider carefully the factors set forth below, as well as the other information contained in this prospectus and incorporated herein by reference.

We have a history of losses from operations and may continue to incur additional losses in the future which could adversely affect our ability to operate and your investment in our common stock.

We have reported consolidated net losses in all annual periods, except 1999, when we reported net income of \$1,570,000, before provision for preferred stock dividends, net of \$120,000. For the year ended December 31, 2001, we had an audited net loss of \$602,000, before provision for preferred stock dividends of \$145,000. Our audited consolidated balance sheet at December 31, 2001, reflected an accumulated deficit of approximately \$22,216,000. For the nine months ended September 30, 2002, we had unaudited net income of \$2,354,000, before preferred stock dividends of \$111,000. If we fail to become profitable or sustain profitability on an annualized basis in the foreseeable future, we may be unable to fund our continuing operations.

Our substantial amount of debt could adversely affect our operations.

We have a substantial amount of debt. At October 31, 2002, our aggregate consolidated debt was approximately \$31.4 million. If our floating rates of interest experienced an upward increase of 1%, our debt service would increase by approximately \$164,000 annually. Our leverage could have material adverse consequences on our ability to operate our business, including the following:

- * our ability to obtain additional financing in the future for refinancing indebtedness, acquisitions, working capital, capital expenditures or other purposes may be impaired;
- * funds available to us for our operations and general corporate purposes or for capital expenditures will be reduced because a substantial portion of our consolidated cash flow from operations will be dedicated to the payment of the principal and interest on our indebtedness;
- * we may be more highly leveraged than certain of our competitors, which may place us at a competitive disadvantage;
- * the agreements governing our long-term indebtedness and credit facility contain certain restrictive financial and operating covenants;
- * if an event of default occurs, which is not cured or waived, under financial and operating covenants contained in either our or our subsidiaries' debt instruments, this could result in and have a material adverse effect on us;
- * we may be more vulnerable to a downturn in general economic conditions; and

- * certain of the borrowings under our debt agreements have floating rates of interest, which cause us to be vulnerable to increases in interest rates.

Our ability to make principal and interest payments, or to refinance indebtedness, will depend on both our and our subsidiaries' future operating performance and cash flow. Prevailing economic conditions, interest rate levels, and financial, competitive, business, and other factors affect us and our subsidiaries. Many of these factors are beyond our control.

Our industrial waste management services and nuclear waste management services subject us to potential environmental liability.

Our business of rendering services in connection with management of waste, including certain types of hazardous waste and low-level radioactive waste, subjects us to risks of liability for damages. Such liability could involve, without limitation:

- * claims for clean-up costs, personal injury or damage to the environment in cases in which we are held responsible for the release of hazardous or radioactive materials;
- * claims of employees, customers, or third parties for personal injury or property damage occurring in the course of our operations; and
- * claims alleging negligence or professional errors or omissions in the planning or performance of our services.

We could also be deemed a responsible party for the cost of cleaning any property which may be contaminated by hazardous substances generated by us and disposed at such property or transported by us to a site selected by us, including properties we own or lease.

The conversion of our convertible preferred stock and exercise of our outstanding warrants and options could cause the market price of our common stock to fall, and may have dilution and other effects on our existing stockholders.

The conversion of our outstanding Series 17 Class Q Convertible Preferred Stock, par value \$.001 per share (the "Series 17 Preferred"), and the exercise of our outstanding warrants and options could result in the issuance of up to 18,760,619 shares of common stock, assuming all outstanding warrants and options are currently exercisable and subject to adjustment pursuant to certain anti-dilution provisions. Such issuances would significantly reduce the percentage ownership of our existing common stockholders and could, among other things, depress the price of the common stock. This result could detrimentally affect our ability to raise additional equity capital. The issuance of such additional shares of common stock may also result in a change in control.

The conversion of our outstanding Series 17 Preferred could result in the issuance of up to 1,666,667 shares of common stock at a conversion price of \$1.50 per share of common stock, subject to adjustment pursuant to certain anti-dilution provisions. The exercise of our outstanding warrants and options into common stock could result in the issuance of up to approximately 14,411,552 shares, and 2,682,400 shares, respectively (assuming that all options and warrants are currently exercisable). The exercise prices of the outstanding warrants and options range from \$1.00 per share to \$5.25 per share, subject to adjustment pursuant to certain anti-dilution provisions. Consequently, upon such issuances, our stockholders could experience a significant dilution of their investment. Dilution of our common stock may potentially have a substantial and material adverse impact on our earnings per share.

The holders of all of our convertible preferred stock and the holders of many of our warrants and options may immediately sell the full amount of common stock received upon conversion of the convertible preferred stock or exercise of the warrants and options, as applicable. As these shares are sold, the price of the common stock may decrease.

Our outstanding preferred stock and warrants subject us to a potential change in control, which could have an adverse effect on our management, the listing of our common stock, and our existing stockholders' ability to influence our management and policies.

As of September 12, 2002, Capital Bank-Grawe Gruppe AG ("Capital Bank"), f/k/a RBB Bank Aktiengesellschaft, owned of record, as agent for certain of its investors, 9,258,672 shares of our common stock, or approximately 27.0% of the outstanding shares of common stock, and had the right to acquire an additional 6,025,317 shares of common stock pursuant to the convertible preferred stock and warrants held in Capital Bank's name, as agent for certain investors. The Selling Stockholders table beginning on page 22 of this prospectus includes 109 persons and entities which, in the aggregate, beneficially own 3,143,115 shares of the common stock that are owned of record by Capital Bank and 2,725,548 shares of common stock issuable upon the exercise of warrants held in Capital Bank's name. If Capital Bank acquires all of the shares issuable to Capital Bank pursuant to such preferred stock and warrants, Capital Bank would own of record 15,283,989 shares of common stock, representing 37.9% of the then issued and outstanding common stock, assuming we issue no other shares of common stock and Capital Bank does not dispose of any shares. Consequently, if Capital Bank seeks to control us, we may be unable to avoid a change in control. See "POTENTIAL CHANGE IN CONTROL" beginning on page 13 of this prospectus.

If Capital Bank converts all of the preferred stock and exercises all the warrants that are held in its name, and all of the other holders of our currently outstanding warrants and options to purchase common stock exercise such warrants and options, then Capital Bank would own approximately 28.8% of our then issued and outstanding common stock, assuming we do not issue any other shares of our common stock and Capital Bank does not dispose of any shares.

Although we are not aware of any agreement or understanding among Capital Bank's investors to act as a group, if Capital Bank's investors agree to, or reach an understanding to, act as a group or otherwise to act in concert for the purposes of voting on matters subject to stockholder vote, our operations and management could be greatly impacted. For instance, this investor group could instruct Capital Bank to vote for a significant change of our directors or for the approval of a merger proposal. As a result, the ability of our other stockholders to influence our management and policies could be limited, and their ability to realize opportunities to sell some or all of their stock at prices that represent a premium over market prices could be lost.

Our senior credit facility provides that a change of control will occur if (a) Dr. Louis F. Centofanti, our Chairman, President, and Chief Executive Officer, or Richard T. Kelec, our Chief Financial Officer, cease to serve as senior executive officers in substantially the same capacity as served on the date of the credit facility or the persons who were members of our Board on the closing of the credit facility cease to constitute 50% of our Board. Each of these events could be an event of default under the terms of the credit facility. The terms of the Purchase Agreement covering our Subordinated Notes provide that if Dr. Centofanti ceases to be our President and Chief Executive Officer, the holders of the Subordinated Notes have the option to require us to prepay all amounts owing under the Subordinated Notes. The Purchase Agreement covering the Subordinated Notes also provides that if any person or group is successful in electing its nominees to 50% or more of the positions on our Board, then the holders of the Subordinated Notes have the option to require us to prepay all amounts owing under the Subordinated Notes plus a prepayment premium. If a group of Capital Bank investors were to successfully attempt to cause any of these changes in our management or Board membership, we would be in default under our senior credit facility or our Subordinated Notes, or both of them. See "If we cannot retain our key personnel, we may lose sufficient revenues, be required to prepay our Subordinated Notes, and default under our senior credit facility" beginning on page 7 of this prospectus. The Purchase Agreement and Subordinated Notes are discussed under "SUMMARY OF SECURITIES BEING OFFERED -- Note Warrants" beginning on page 15 of this prospectus.

The rules of the Nasdaq SmallCap Market (the "Nasdaq") could deem such a change in control to be a change in financial structure or a merger or consolidation with Capital Bank. If so, Nasdaq could require us to requalify under the initial listing standards of Nasdaq to maintain the listing of our common stock on

the Nasdaq. If we are required to requalify for listing on the Nasdaq, among other things, our common stock must have a minimum bid price of \$4.00 per share. The market price of the common stock as of the effective date of this prospectus is below \$4.00 and would not meet Nasdaq initial listing requirements.

Our ability to successfully operate M&EC could impact our future growth.

In June 2001, we acquired East Tennessee Materials and Energy Corporation ("M&EC"), a mixed waste processing facility in Oak Ridge, Tennessee. Prior to the acquisition, we had loaned and advanced approximately \$12.1 million to M&EC for use in the operation and construction of M&EC's facility. At the closing of the M&EC acquisition, we advanced funds to M&EC to pay certain liabilities to the Internal Revenue Service, certain 401(k) plans, and several M&EC debt holders, in the aggregate amount of approximately \$2.1 million. In order to acquire M&EC and to finance the construction of M&EC's facility, we borrowed a substantial amount of funds.

M&EC's facility is newly constructed, and M&EC had limited operating history prior to our acquisition of M&EC. We may be unable to effectively operate M&EC to achieve long-term profitability. If M&EC's operations fail to generate revenue sufficient for us to recoup the amounts loaned to M&EC and expended in the acquisition of M&EC, the potential growth of our business will be limited and our business, results of operations, and financial condition would suffer.

If M&EC is unable to maintain its DOE subcontracts, it could lose its primary revenue source.

Currently, M&EC's revenues are generated primarily pursuant to three subcontracts under contracts with the U. S. Department of Energy (the "DOE"). Each of these subcontracts provides that the contractor, on its or the DOE's behalf, may terminate the contracts under which the subcontracts were issued at any time by notifying us. If we fail to maintain, renew, or replace these contracts, M&EC's revenues could be materially reduced, and your investment could be materially and adversely affected.

If we cannot maintain our government permits or cannot obtain any required permits, we may not be able to continue or expand our operations.

Our business is subject to extensive, evolving, and increasingly stringent federal, state, and local environmental laws and regulations. Such federal, state, and local environmental laws and regulations govern our activities regarding the treatment, storage, recycling, disposal, and transportation of hazardous and non-hazardous waste and low-level radioactive waste. We must obtain and maintain permits, licenses and/or approvals to conduct these activities in compliance with such laws and regulations. Failure to obtain and maintain the required permits, licenses and/or approvals would have a material adverse effect on our operations and financial condition. If we are unable to maintain our currently held permits, licenses, and/or approvals or obtain any additional permits, licenses and/or approvals which may be required as we expand our operations, we may not be able to continue certain of our operations.

Changes in environmental regulations and enforcement policies could subject us to additional liability and adversely affect our ability to continue certain operations.

Because the environmental industry continues to develop rapidly, we cannot predict the extent to which our operations may be affected by future enforcement policies as applied to existing laws, by changes to current environmental laws and regulations, or by the enactment of new environmental laws and regulations. Any predictions regarding possible liability under such laws are complicated further by current environmental laws which provide that we could be liable, jointly and severally, for certain activities of third parties over whom we have limited or no control.

If we are unable to become profitable, we may be unable to comply with certain government regulations and could become subject to substantial fines or lose our permits.

The standards imposed by federal, state, and local environmental laws require us to incur additional expenses as necessary to upgrade our facility. Our inability to become profitable on a long-term basis could have a negative impact on our ability to remain in compliance with various federal, state, and local environmental regulations. Violation of such federal, state, and local regulations could result in the loss of one or more of our permits or subject us to substantial fines, penalties, or other liabilities that could have a

material adverse impact on our financial condition and our ability to continue certain of our operations.

As our operations expand, we may be subject to increased litigation which could have a negative impact on our future financial results.

Our operations are regulated by numerous laws regarding procedures for waste treatment, storage, recycling, transportation, and disposal activities, all of which may provide the basis for litigation against us. In recent years, the waste treatment industry has experienced a significant increase in so-called "toxic-tort" litigation as those injured by contamination seek to recover for personal injuries or property damage. We believe that as our operations and activities expand, there will be a similar increase in the potential for litigation alleging that we are responsible for contamination or pollution caused by our normal operations, negligence or other misconduct, or for accidents which occur in the course of our business activities. Such litigation, if significant and not adequately insured against, could adversely affect our financial condition and our ability to fund our operations. Protracted litigation would likely cause us to spend significant amounts of our time, effort, and money. This could prevent our management from focusing on our operations and expansion.

If we cannot maintain adequate insurance coverage, we will be unable to continue certain operations.

Our business exposes us to various risks, including claims for causing damage to property and injuries to persons which may involve allegations of negligence or professional errors or omissions in the performance of our services. Such claims could be substantial. We believe that our insurance coverage is presently adequate and similar to, or greater than, the coverage maintained by other companies in the industry of our size. If we are unable to obtain adequate or required insurance coverage in the future or, if our insurance is not available at affordable rates, we would violate our permit conditions and other requirements of the environmental laws, rules, and regulations under which we operate. Such violations would render us unable to continue certain of our operations. These events would have a material adverse effect on our financial condition.

Our operations will suffer if we are unable to manage our rapid growth.

We are currently experiencing a period of rapid growth through internal expansion and strategic acquisitions. This growth has placed, and could continue to place, a significant strain on our management, personnel, and other resources. Our ability to grow will require us to effectively manage our collaborative arrangements and to continue to improve our operational, management, and financial systems and controls, and to successfully train, motivate, and manage our employees. If we are unable to effectively manage our growth, we may not realize the expected benefits of such growth, and such failure could have a material adverse effect on our operations and financial condition.

If we are unable to protect our proprietary technology, our growth could be limited.

Our success is dependent upon our ability to maintain our proprietary technologies. There can be no assurance that the steps taken by us to protect our proprietary technologies will be adequate to prevent misappropriation of these technologies by third parties. Misappropriation of our proprietary technology could have an adverse effect on our operations and financial condition. Changes to current environmental laws and regulations also could limit the use of our proprietary technology.

If we cannot retain our key personnel, we may lose significant revenues, be required to prepay our subordinated notes, and default under our senior credit facility.

Our success depends on the contributions of our key management, environmental and engineering personnel, especially Dr. Louis F. Centofanti, Chairman, President, and Chief Executive Officer. The loss of Dr. Centofanti could have a material adverse effect on our operations, revenues, prospects, and our ability to raise additional funds. Our future success depends on our ability to retain and expand our staff of qualified personnel, including environmental specialists and technicians, sales personnel, and engineers. Without qualified personnel, we may incur delays in rendering our services or be unable to render certain services. We cannot be certain that we will be successful in our efforts to attract and retain qualified personnel as their availability is limited due to the demand for hazardous waste management services and the highly competitive nature of the hazardous waste management industry. We do not maintain key

person insurance on any of our employees, officers, or directors.

Our credit facility provides that a change of control will occur if Dr. Centofanti or Richard T. Kelecy, our Chief Financial Officer, cease to serve as senior executive officers in substantially the same capacity as served on the date of the credit facility. Our credit facility also provides that a change of control results when the persons who are members of our Board on the closing of the credit facility cease to constitute 50% of our Board. Each of these events could be an event of default under the terms of the credit facility. The terms of the Purchase Agreement covering our Subordinated Notes provide that if Dr. Centofanti ceases to be our President and Chief Executive Officer, the holders of the Subordinated Notes have the option to require us to prepay all amounts owing under the Subordinated Notes. The Purchase Agreement covering the Subordinated Notes also provides that if any person or group, including Capital Bank, is successful in electing its nominees to 50% or more of the positions on our Board, the holders of the Subordinated Notes have the option to require us to prepay all amounts owing under the Subordinated Notes plus a prepayment premium. The Purchase Agreement and Subordinated Notes are discussed under "SUMMARY OF SECURITIES BEING OFFERED - Note Warrants" beginning on page 14 of this prospectus.

If environmental regulation or enforcement is relaxed, the demand for our services will decrease.

The demand for our services is substantially dependent upon the public's concern with, and the continuation and proliferation of, the laws and regulations governing the treatment, storage, recycling, and disposal of hazardous, non-hazardous, and low-level radioactive waste. A decrease in the level of public concern, the repeal or modification of these laws, or any significant relaxation of regulations relating to the treatment, storage, recycling, and disposal of hazardous waste and low-level radioactive waste would significantly reduce the demand for our services and could have a material adverse effect on our operations and financial condition. We are not aware of any current federal or state government or agency efforts in which a moratorium or limitation has been, or will be, placed upon the creation of new hazardous waste regulations that would have a material adverse effect on us; however, no assurance can be made that such a moratorium or limitation will not be implemented in the future.

Our operations are subject to seasonal factors which cause our revenues to fluctuate.

We have experienced reduced revenues, operating losses or decreased operating profits during the first and fourth quarters of our fiscal years due to a seasonal slowdown in operations from poor weather conditions and overall reduced activities during the holiday season. During our second and third fiscal quarters there has historically been an increase in revenues and operating profits.

Our revenues in our Industrial Waste Management Services are subject to economic downturns.

Our Industrial Waste Management Services segment is generally adversely affected by economic downturns. Reductions in industrial production results in reduced levels of hazardous and non-hazardous waste being generated and/or sent off for treatment. We believe that our revenues and profits were negatively affected within this segment by the downturn in economic conditions in 2001, and that this trend has continued into 2002.

We do not intend to pay dividends on our common stock in the foreseeable future.

Since our inception, we have not paid cash dividends on our common stock, and we do not anticipate paying any cash dividends in the foreseeable future. We intend to retain future earnings, if any, to provide funds for the operation and/or expansion of our business.

The terms of the Series 17 Preferred allow us to pay dividends on the outstanding Series 17 Preferred in cash or common stock. We currently intend to pay the dividends accruing on the Series 17 Preferred in common stock if, and when, declared and paid by our Board of Directors. The actual number of shares of common stock issuable in payment of accrued dividends on the Series 17 Preferred will depend upon the length of time the Series 17 Preferred is outstanding and the price of the common stock at the time of payment of dividends. Our credit facility prohibits us from paying cash dividends on the Series 17 Preferred without the lender's prior written consent.

We will not realize a benefit from our loss carryforwards if we are unable to generate income.

We have approximately \$19.2 million in net operating loss carryforwards which will expire from 2007 to 2021 if not used against future federal income tax liabilities. Our net loss carryforwards are subject to various limitations and have not been approved by the Internal Revenue Service. We anticipate the net loss carryforwards will be used to reduce the federal income tax payments which we would otherwise be required to make with respect to income, if any, generated in future years.

Delaware law, certain of our charter provisions, the presence of one substantial stockholder, and our stock option plans may inhibit a change of control under circumstances that could give you an opportunity to realize a premium over prevailing market prices.

We are a Delaware corporation governed, in part, by the provisions of Section 203 of the General Corporation Law of Delaware, an anti-takeover law. In general, Section 203 prohibits a Delaware public corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business contribution is approved in a prescribed manner. As a result of Section 203, potential acquirers may be discouraged from attempting to effect acquisition transactions with us, thereby possibly depriving our security holders of certain opportunities to sell, or otherwise dispose of, their stock in us at above-market prices pursuant to such transactions. Further, our 1991 Performance Equity Plan, 1992 Outside Directors Stock Option Plan, and 1993 Nonqualified Stock Option Plan provide for the immediate acceleration of, and removal of restrictions from, options and other awards under such plans upon a "change of control" (as defined in the respective plans). Such provisions may also have the result of discouraging acquisition of us.

The issued and outstanding shares of Series 17 Preferred held by Capital Bank and the warrants held by Capital Bank, as agent for certain investors, could discourage other persons from attempting to acquire us. If Capital Bank acquires the 1,666,667 additional shares of common stock issuable upon conversion of the outstanding Series 17 Preferred and the 4,358,650 additional shares issuable upon the exercise of the warrants held in Capital Bank's name, then Capital Bank will own approximately 15,283,989 or 37.9% of our outstanding common stock, which includes the 9,258,672 shares of common stock directly held by Capital Bank as of September 12, 2002, but does not include the shares of common stock which may be issuable in payment of dividends on the Series 17 Preferred. This percentage assumes that no shares of common stock are issued after September 12, 2002, other than to Capital Bank in connection with the conversion of the Series 17 Preferred and exercise of the warrants. In this event, if Capital Bank's investors agree to act as a group for the purpose of voting on matters subject to stockholder vote, we may have insufficient remedies to avoid an actual change in control in favor of such group of Capital Bank investors. Consequently, the issued and outstanding shares of the Series 17 Preferred and the common stock held by Capital Bank could discourage other persons from attempting to acquire us even if Capital Bank's investors do not act as a group to seek to obtain control. We are not aware of any agreement or understanding among Capital Bank's investors to act as a group.

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Under our Restated Certificate of Incorporation, as amended (the "Certificate"), as of October 1, 2002, 40,701,618 shares of common stock (including 988,000 treasury shares) are available for future issuance, of which 18,760,619 are reserved for issuance under our outstanding preferred stock, options and warrants. These authorized shares are necessary to provide us with the ability to issue common stock from time to time as needed for proper corporate purposes, such as:

- * raising capital funds through private or public offerings;
 - * acquiring other companies;
 - * declaring stock splits or stock dividends; and
 - * issuing common stock under warrants, preferred stock, or other rights which may be granted
- by us from time to time in the future.

Additional authorization of shares of common stock could be used by incumbent management to make it more difficult, and thereby discourage, an attempt to acquire control of us, even though our stockholders may deem such an acquisition desirable. The issuance of new shares of common stock and/or preferred stock could also be used to dilute the stock ownership and voting power of a third party seeking to remove the directors, replace incumbent directors, accomplish certain business combinations alter, amend, or repeal portions of our Certificate or discourage or prohibit a takeover of us. See "RECENT DEVELOPMENTS - Amendment to Our Charter."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements, other than statements of historical fact, in this prospectus are forward-looking statements, including statements regarding, among other things:

- * our current objective to develop innovative technologies for the treatment of nuclear, mixed and industrial waste;
- * our ability or inability to improve operations and become profitable on an annualized basis and continue our operations;
- * our ability to protect our proprietary technologies;
- * our anticipated financial performance;
- * our ability to utilize net operating loss carryforwards against future federal income tax liabilities;
- * our ability to comply with our general working capital requirements;
- * our ability to retain certain permits or licenses;
- * our ability to treat heavily contaminated wastewater streams at more competitive prices than traditional methods; and
- * the adoption of moratoriums or limitations by federal or state governments regarding the creation of new hazardous waste regulations.

Although we believe our expectations reflected in those forward-looking statements are based on reasonable assumptions, we cannot assure you that these expectations will prove to be correct.

Important factors which could cause actual results and future outcomes to differ materially from those described in this prospectus include, but are not limited to, the following:

- * general economic conditions;
 - * material reduction in revenues;
 - * inability to collect in a timely manner a material amount of receivables;
 - * increased competitive pressures;
 - * inability to maintain and obtain required permits and approvals to conduct operations;
 - * reduction in revenues and profitability of services provided by us due to increased competition;
- carryforwards;
- * future federal tax audit or audits which could reduce our loss carryforwards;
 - * limitations imposed by the Internal Revenue Code or our inability to utilize our loss
- such
- * inability to develop new and existing technologies in the conduct of operations or to develop technologies for commercial use;
- or
- * changes in federal, state, and local laws and regulations, especially environmental regulations, in the interpretation of such laws and regulations;
 - * potential increases in equipment, maintenance, operating or labor costs;
 - * management retention and development;
 - * inability to become profitable, and, if unable to become profitable, our inability to secure
- additional
- * liquidity in the form of additional equity or debt;
 - * inability to maintain the listing of our common stock on the Nasdaq;
 - * cancellation of one or more subcontracts issued to M&EC in connection with government
- contracts;

- * M&EC's limited operating history; and
- * the factors set forth under "Risk Factors" beginning on page 2 of this prospectus.

In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "could," "would," "expect," "plan," "anticipate," "believe," "continue," or the derivative of these terms or other similar expressions. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified by the cautionary statements included in this prospectus. We undertake no obligation to update or revise our forward-looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this prospectus might not occur.

RECENT DEVELOPMENTS

Private Placement: Unit Warrants and Placement Agent Warrants

On July 30, 2001, we completed a private placement offering of units (the "Private Placement") to accredited investors. Each unit is comprised of one share of our common stock and one warrant to purchase one share of common stock (a "Unit Warrant"). The purchase price for each unit was \$1.75, and the exercise price of each Unit Warrant is \$1.75, subject to adjustment under certain conditions. We accepted subscriptions for 4,397,566 of the maximum 4,400,000 units offered, for an aggregate purchase price of \$7,695,740. This prospectus is part of the registration statement which registers for resale 4,010,638 of the 4,397,566 shares of common stock issued pursuant to the Private Placement and 4,352,893 of the 4,397,566 shares of common stock issuable upon the exercise of the Unit Warrants issued pursuant to the Private Placement.

Under the terms of the Private Placement, we appointed Larkspur Capital Corporation ("Larkspur"), Ryan, Beck & Co., formerly Ryan, Beck & Co., L.L.C. ("Ryan Beck"), and National Securities Corporation ("National") as placement agents (each, a "Placement Agent") to place the units as our agent and to assist in completing the Private Placement. We paid each Placement Agent a private placement fee equal to 7.5% of the aggregate purchase price for units placed by that particular Placement Agent. We also issued to each Placement Agent warrants to purchase up to the number of shares of common stock equal to 7% of the aggregate purchase price for units placed by that particular Placement Agent, divided by \$1.75 (the "Placement Agent Warrants"). The Placement Agent Warrants are for a term of five years and have an exercise price of \$1.75 per share. As a result, we paid the Placement Agents \$202,500 in total fees and issued to them Placement Agent Warrants for the purchase of up to an aggregate of 108,000 shares of common stock. On June 26, 2002, Ryan Beck assigned a portion of its Placement Agent Warrants for the purchase of 11,000 shares to managing directors of Ryan Beck. On July 17, 2002, Larkspur assigned all of its Placement Agent Warrants for the purchase of 34,000 shares to certain managing directors of Larkspur. On July 30, 2002, Ryan Beck assigned to Associated Mezzanine Investors, L.L.C. ("AMI") a portion of such warrants for the purchase of 10,000 shares, and Larkspur assigned to AMI a portion of such warrants for the purchase of 10,000 shares. This prospectus is part of the registration statement which registers for resale the 108,000 shares issuable upon the exercise of the Placement Agent Warrants.

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The exercise price and the number of shares of common stock issuable upon the exercise of the Unit Warrants and Placement Agent Warrants are subject to adjustment, from time to time, if we:

- * (a) pay a dividend in, or make a distribution of, shares of capital stock on our outstanding common stock; (b) subdivide our outstanding shares of common stock into a greater number of shares; or
- (c) combine our outstanding shares of common stock into a smaller number of shares; and
- * consolidate with, or merge into, another corporation (other than a consolidation or merger which does not result in any reclassification or change of the outstanding common stock).

The Private Placement was sold only to accredited investors as that term is defined under Regulation D of the Act. Capital Bank, as agent for certain of its investors, subscribed for 842,995 units under the Private Placement. Asserting Austrian law, Capital Bank would not disclose the identities of its investors to us at the time of the Private Placement, but Capital Bank did represent to us that all of its

investors were accredited investors. Capital Bank directly owns, as agent for its investors, 9,258,672 shares of common stock, or 27.0% of our outstanding common stock as of September 12, 2002, and holds warrants and convertible preferred stock entitling it to purchase or receive up to an additional 6,025,317 shares of common stock. See "POTENTIAL CHANGE IN CONTROL" beginning on page 13 of this prospectus for a discussion of Capital Bank's ownership of our securities as agent for its various investors.

Our common stock is listed for trading on the Nasdaq and the Boston Stock Exchange ("BSE"). Although the BSE approved the listing of the shares of common stock to be issued in connection with the Private Placement and upon the exercise of the Unit Warrants and the Placement Agent Warrants, the Nasdaq advised the Company that the Private Placement could violate Nasdaq Rule 4350(i)(1)(D) governing the listing of additional securities on the Nasdaq as originally structured.

Rule 4350(i)(1)(D) generally provides that a corporation may not, through a private offering such as the Private Placement, issue a number of shares of common stock equal to or greater than 20% of the corporation's outstanding common stock at a price less than the greater of book or market value of the common stock without first obtaining shareholder approval. Because the price of our common stock as reported on the Nasdaq rose from \$1.6875 per share on the date the Private Placement commenced to \$2.27 on the date the Private Placement terminated, numerous subscription agreements were executed at a time when the market value per share of common stock was greater than the \$1.75 purchase price per unit. The Nasdaq claimed that the subscription agreements executed on a date when the market price was greater than the \$1.75 unit purchase price represented sales at less than the greater of book or market value of the common stock, thereby violating Rule 4350(i)(1)(D).

In order to comply with Rule 4350(i)(1)(D), we agreed with Nasdaq to restructure the Private Placement so that (a) the number of Units offered was reduced from 5,000,000 to 4,400,000, and (b) the Unit Warrants and the Placement Agent Warrants could not be exercisable until our stockholders approved the issuance of the shares of common stock upon the exercise of the Unit Warrants and the Placement Agent Warrants. As a result of the modifications, only 4,397,566 shares of common stock, representing approximately 19.5% of the issued and outstanding shares of common stock as of the commencement of the Private Placement, were issued under the Private Placement without stockholder approval.

On June 14, 2002, we held a special meeting of our stockholders (the "Special Meeting"). At the Special Meeting, the stockholders entitled to vote approved the issuance of the shares of common stock issuable upon the exercise of the Unit Warrants and the Placement Agent Warrants.

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Amendment to our Charter

Prior to our Special Meeting held on June 14, 2002, our Restated Certificate of Incorporation, as amended (the "Certificate"), authorized 52,000,000 shares of capital stock of the Company, comprised of 50,000,000 shares of authorized common stock, par value \$.001 per share, and 2,000,000 shares of authorized preferred stock, par value \$.001 per share. At the Special Meeting, our Board of Directors recommended, and our stockholders approved, an amendment to the Certificate increasing our authorized shares of common stock from 50,000,000 to 75,000,000 (the "Amendment").

The Amendment was necessary to allow the issuance of common stock upon the exercise or conversion of all of our outstanding convertible securities and other rights to acquire our common stock. As of September 12, 2002, 34,298,382 shares of common stock were issued and outstanding, leaving 40,701,618 authorized shares (including 988,000 treasury shares) available to satisfy our existing reserve obligations. As of that date, at least 20,356,763 shares of common stock are required to be reserved for potential issuances, which include the following shares:

- * 87,100 shares issuable or which could be issuable under our 1991 Performance Equity Plan;
- * 315,669 shares issuable or which could be issuable under our 1992 Outside Directors Stock Option and Incentive Plan;
- * approximately 3,681,691 shares issuable or which could be issuable under our 1993 Nonqualified Stock Option Plan;

- Stock
- * approximately 194,084 shares issuable or which could be issuable under our 1996 Employee Purchase Plan;
 - * 14,411,552 shares issuable upon exercise of outstanding warrants granted by the Company (including the various warrants included in this prospectus); and
 - * up to 1,666,667 shares issuable upon conversion of 2,500 outstanding shares of our Series 17 Class Q Convertible Preferred Stock (the "Series 17 Preferred").

By increasing the number of authorized shares of common stock beyond the existing reserve requirement, shares will be available for issuance from time to time as needed for such proper corporate purposes as may be determined by the Board of Directors. These corporate purposes might include the following:

- * the raising of capital funds through private or public offerings;
- * the acquisition by us of other companies,
- * the declaration of stock splits or stock dividends, and
- * the issuance of common stock under warrants, preferred stock, or other rights which may be granted by us from time to time in the future.

The Board may issue authorized common stock without future stockholder approval, except as may be required by applicable law or rule of the BSE or Nasdaq (if the Company's securities are then listed on the BSE or the Nasdaq). The issuance of additional shares of common stock could have a detrimental effect upon existing holders of the Company's common stock (see "RISK FACTORS").

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Amendments to the Oak Ridge Contracts

As previously discussed in this prospectus, our subsidiary, M&EC, is primarily operating under three subcontracts involving contracts with the DOE. For a number of months, M&EC has been in negotiations with the general contractor to amend the pricing terms of the subcontracts to allow M&EC to bill additional amounts primarily for drum density and chemical content and for certain surcharges under other conditions. On July 2, 2002, the pricing structure under the subcontracts was amended to allow M&EC to charge additional amounts for certain waste drums received primarily in connection with drum density and chemical content. The amended pricing structure applies to all waste received by M&EC under the subcontracts from January 1, 2002, and on all future waste received under these subcontracts. As a result of these amendments, M&EC billed approximately an additional \$2 million in the third quarter for work completed during the first six months of 2002. M&EC is still in negotiations as to any surcharges that may be added to the pricing structure under the subcontracts.

Bio-Fix^(R) Process

In September 2002, we completed the construction of our new Bio-Fix^(R) process at our Ohio waste treatment facility. The facility has begun accepting commercial wastewater for treatment through this process.

The Bio-Fix^(R) process is a new technology which we developed utilizing our patented variable depth biological treatment process and several proprietary water treatment processes. The Bio-Fix^(R) process is designed to remove certain organic constituents from highly organic, contaminated wastewaters. We believe that the Bio-Fix^(R) process will enable us to treat heavily contaminated wastewater streams, such as waste oils, phenals, and "lean" waters, at more competitive prices than traditional methods.

The new process meets the EPA's new centralized treatment standards that become effective in 2003, potentially giving us an advantage over competing treatment facilities.

POTENTIAL CHANGE IN CONTROL

As of September 12, 2002, Capital Bank owned of record, as agent for certain accredited investors,

9,258,672 shares of common stock representing 27.0% of our issued and outstanding common stock. As of that date, Capital Bank also had the right to acquire an additional 6,025,317 shares of common stock, comprised of (a) 842,995 shares issuable upon exercise of the Unit Warrants purchased in the Private Placement by Capital Bank as agent for certain investors; (b) 3,515,655 shares of common stock issuable under various other warrants held by Capital Bank, as agent for certain investors; and (c) 1,666,667 shares of common stock issuable to Capital Bank upon the conversion of 2,500 shares of Series 17 Preferred held by Capital Bank. The Selling Stockholders table beginning on page 22 of this prospectus includes 109 persons and entities which, in the aggregate, beneficially own 3,143,115 shares of the common stock that are owned of record by Capital Bank and 2,725,548 shares of common stock issuable upon the exercise of warrants held in Capital Bank's name, all as of September 12, 2002.

If Capital Bank were to acquire all of the shares of common stock issuable upon exercise of the various warrants held by Capital Bank and the shares of common stock issuable upon conversion of the Series 17 Preferred, then Capital Bank would own of record 15,283,989 shares of common stock, representing 37.9% of the issued and outstanding common stock. The foregoing estimates assume that we do not issue any other shares of common stock; no other warrants or options are exercised; we do not acquire additional shares of common stock as treasury stock; and Capital Bank does not dispose of any shares of common stock.

Capital Bank has advised us that it is a banking institution regulated by the banking regulations of Austria which holds shares of our common stock on behalf of numerous investors. Capital Bank asserts that it is precluded by Austrian law from disclosing the identities of its investors, unless so approved by each such investor. Asserting Austrian law, Capital Bank would not disclose to us the identities of its investors but did represent that all of its investors are accredited investors under Rule 501 of Regulation D promulgated under the Act. In addition, Capital Bank has advised us that none of

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its investors beneficially own more than 4.9% of our common stock. Certain of its investors recently gave Capital Bank permission to disclose their identities in order to be included as Selling Stockholders in this prospectus. Capital Bank has further informed us that its clients (and not Capital Bank) maintain full voting and dispositive power over such shares. Consequently, Capital Bank has advised us that it believes it is not the beneficial owner, as such term is defined in Rule 13d-3, of the shares of our common stock registered in the name of Capital Bank because it has neither voting nor investment power, as such terms are defined in Rule 13d-3, over such shares. Capital Bank has informed us that it does not believe that it is required to file, and has not filed, reports under Section 16(a) or to file either Schedule 13D or Schedule 13G in connection with the shares of our common stock registered in the name of Capital Bank.

If Capital Bank's investors agree to, or reach an understanding to, act as a group or otherwise to act in concert for the purposes of voting on matters subject to stockholder vote, our operations and management could be greatly impacted. For example, if Capital Bank acquires the shares of common stock described in the previous paragraph, the Capital Bank investor group may be able to cause a change in at least 50% of the members of our Board of Directors. This change in Board membership could be an event of default under our \$22 million credit facility (the "Credit Facility") and our \$5.6 million outstanding Subordinated Notes. If the Capital Bank investor group were to cause Dr. Louis Centofanti to be removed from our Board of Directors or as our president and chief executive officer, the removal could be an event of default under the Credit Facility and the Subordinated Notes. The Company is not aware of any agreement or understanding among Capital Bank's investors to act as a group.

If the representations by Capital Bank are incorrect or Capital Bank was historically acting on behalf of its investors as a group, rather than on behalf of each investor independent of other investors, then Capital Bank and/or the investor group would have become a beneficial owner (as that term is defined under Rule 13d-3 as promulgated under the Exchange Act of 1934, as amended (the "Exchange Act")) of more than 10% of our common stock. Capital Bank and/or its investor group has not filed with the Securities and Exchange Commission and the Company, among other reports, any Forms 3, 4 or 5, and has not filed any applicable Schedules 13D or 13G as a result of acquiring shares of our voting equity securities.

Because Capital Bank (a) has advised us that it holds the common stock as a nominee only and that it does not **have or share** voting or investment power over our common stock held in its name and that no one investor of Capital Bank for which it holds our common stock holds more than 4.9% of our issued and outstanding common stock; (b) has no right to, and is not believed to possess the power to,

exercise control over our management or our policies; (c) has not nominated, and has not sought to nominate, a director to our board; and (d) has no representative serving as an executive officer of the Company, we do not believe that Capital Bank is an affiliate of the Company.

USE OF PROCEEDS

We will not receive any part of the proceeds of the sale of Shares. We will receive approximately \$19,732,000 if the Selling Stockholders exercise, for cash, all of the warrants covering Shares included in this prospectus. However, this amount would be reduced by \$6,689,000 if all of the warrants having a cashless exercise option are exercised on a cashless basis. Any proceeds received by us from the exercise of these warrants will be used by us for general corporate purposes.

We have agreed to pay all costs and fees relating to the registration of the common stock covered by this prospectus, except for any discounts, concessions, or commissions payable to underwriters, dealers, or agents incident to the offering of the Shares covered by this prospectus, or any legal fees incurred by any Selling Stockholders relating to this offering.

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SUMMARY OF SECURITIES BEING OFFERED

The 17,931,966 Shares covered by this prospectus are comprised of the following:

- * 4,010,638 shares issued pursuant to our Private Placement (see page 10);
- * 4,352,893 shares issuable upon the exercise of the Unit Warrants (see page 10);
- * 108,000 shares issuable upon the exercise of the Placement Agent Warrants (see page 10);
- * 1,281,731 shares issuable upon the exercise of the Note Warrants (see page 15);
- * 1,793,178 shares issued pursuant to the Exchange Agreement (see page 17);
- * 1,741,926 shares issuable upon the exercise of the Exchange Warrant (see page 17);
- * 625,000 shares issuable upon the exercise of the Capital Exchange Warrant (see page 17);
- * 817,142 shares issuable upon the exercise of the BHC Warrants (see page 18);
- * 610,000 shares issuable upon the exercise of the National Warrants (see page 20); and
- * 2,591,458 shares issuable upon the exercise of the Consultant Warrants (see page 20).

Private Placement; Unit Warrants; and Placement Agent Warrants

The 4,010,638 shares issued pursuant to our recent Private Placement, the 4,352,893 shares issuable upon the exercise of Unit Warrants, and the 108,000 shares issuable upon the exercise of the Placement Agent Warrants are registered for resale in the registration statement, of which this prospectus is a part. These shares are discussed under "RECENT DEVELOPMENTS - Private Placement; Unit Warrants and Placement Agent Warrants" beginning on page 10 of this prospectus. An additional 386,928 shares issued pursuant to the Private Placement and 44,673 shares issuable upon the exercise of Unit Warrants are not included in the Shares covered by this prospectus.

Note Warrants

On July 31, 2001, we issued approximately \$5.6 million of our 13.50% Senior Subordinated Notes due July 31, 2006 (the "Subordinated Notes"). The Subordinated Notes were issued pursuant to the terms of a Note and Warrant Purchase Agreement, dated July 31, 2001 (the "Purchase Agreement"), between Associated Mezzanine Investors - PESI (I), L.P. ("AMI"), Bridge East Capital, L.P. ("BEC"), and us. The

Subordinated Notes are unsecured and are unconditionally guaranteed by our subsidiaries. Our payment obligations under the Notes are subordinate to our payment obligations to our primary lender and to certain other of our debts up to an aggregate amount of \$25 million. The net proceeds from the sale of the Subordinated Notes were used to repay certain short-term loans.

Under the terms of the Purchase Agreement, we issued to AMI and BEC warrants to purchase up to 1,281,731 shares of our common stock at an initial exercise price of \$1.50 per share (the "Note Warrants"). The Note Warrants may be exercised at any time during a seven-year term and provide for cashless exercise. The number of shares issuable upon exercise of the Warrants is subject to adjustment pursuant to certain anti-dilution provisions.

The Note Warrants are exercisable at any time, from time to time, beginning July 31, 2001, until July 31, 2008 at an exercise price of \$1.50 per share of common stock. The Note Warrants may also be exercised at the option of the holder pursuant to a cashless exercise provision, which permits the holder to surrender the Note Warrants in exchange for the

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number of shares of common stock equal to the product of the number of shares of common stock designated to be exercised multiplied by a fraction, the numerator of which is the current market price of the common stock less \$1.50, the denominator of which is the current market price. The number of shares of common stock issuable upon exercise of the Note Warrants and the exercise price of the Note Warrants are subject to adjustment under certain circumstances summarized below.

If, at any time after July 31, 2001, we issue or sell additional shares of common stock (including certain option and convertible securities under which common stock may be issued) without consideration or for a consideration per share less than the market price of the common stock on the date of, and immediately prior to, such issue or sale, the exercise price of the Note Warrants will be reduced to a price determined by multiplying the exercise price by a fraction:

* the numerator of which will be:

plus
the
the
(a) the number of shares of common stock outstanding immediately prior to such issue or sale,
(b) the number of shares of common stock which the aggregate consideration received by us for the total number of such additional shares of common stock issued or sold would purchase at then market price; and

* the denominator of which will be the number of shares of common stock outstanding immediately after such issue or sale.

Upon an adjustment in the exercise price of the Note Warrants, the number of shares issuable upon exercise of the Note Warrants will be adjusted by multiplying the number of shares of common stock which would otherwise be issuable upon such exercise by a fraction:

* the numerator of which is \$1.50; and

* the denominator of which is the exercise price, as may be adjusted under the terms of the Note Warrants.

If after July 31, 2001, we declare a dividend or other distribution on our common stock other than a dividend payable in common stock or options for common stock or a regular periodic dividend payable in cash and declared out of earned surplus of the Company, the exercise price in effect prior to the record date for such dividend will be reduced to a price determined by multiplying the exercise price by a fraction (a) the numerator of which will be the current market price on such record date less the value of the dividend or distribution applicable to one share of common stock; and (b) the denominator of which shall be the current market price.

The Note Warrants' anti-dilution terms further provide that, if after July 31, 2001, we:

- * consolidate with or merge into another person without being the continuing or surviving corporation; or
- * consolidate or merge with another person in which we are the continuing or surviving corporation but our common stock or other securities are exchanged for other securities of another person; or
- * we transfer all or substantially all of our properties; or
- * we effect a capital reorganization or reclassification of our common stock or other securities which are not subject to the anti-dilution provisions discussed above,

then the holders of the Note Warrants will be entitled to receive the amount of cash, securities or other property, which the holder would have been entitled to receive if holder had exercised the Note Warrants immediately prior to the transaction.

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An exception to the above sentence is if a purchase, tender, or exchange offer has been accepted by our stockholders and following such purchase, tender, or exchange offer, the maker thereof, together with its affiliates own more than 50% of our outstanding common stock, then holders of the Note Warrants have the option to receive the amount of cash, securities, or other property to which the holder would have been entitled, if the holder of the Note Warrants had exercised the Note Warrants prior to the expiration of such purchase, tender or exchange offer and accepted such offer, and all of the common stock held by such holder had purchased pursuant to such purchase, tender or exchange offer.

The Subordinated Notes and Note Warrants were sold pursuant to an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended (the "Act"), and/or Rule 506 of Regulation D promulgated under the Act, and, therefore, were not registered under the Act. The holders of the Note Warrants have the right to demand registration of the shares of common stock issuable under the Note Warrants on two occasions and also have certain piggyback registration rights. This prospectus is part of the registration statement which registers for resale the 1,281,731 shares of our common stock that are issuable upon the exercise of the Note Warrants.

In connection with the sale of the Subordinated Notes, we entered into an Option Agreement, dated July 31, 2001, with AMI and BEC (the "Option Agreement"). Pursuant to the Option Agreement, we granted each purchaser of the Subordinated Notes an irrevocable option requiring us to purchase any or all of the Note Warrants or the shares of common stock issuable under the Note Warrants then held by the purchaser (the "Put Option"). The Put Option may be exercised at any time commencing July 31, 2004, and ending July 31, 2008. In addition, each purchaser granted us an irrevocable option to purchase all the Note Warrants or the shares of common stock issuable under the Note Warrants then held by the purchaser (the "Call Option"). The Call Option may be exercised at any time commencing July 31, 2005, and ending July 31, 2008. The purchase price under the Put Option and the Call Option is based on the quotient obtained by dividing (a) the sum of six times our consolidated EBITDA for the period of the 12 most recent consecutive months minus Net Debt plus the Warrant Proceeds by (b) the number of Diluted Shares (as the terms EBITDA, Net Debt, Warrant Proceeds, and Diluted Shares are defined in the Option Agreement).

Pursuant to the guidance under EITF 00-19 on accounting for, and financial presentation of, securities that could potentially be settled in our stock, the Put Option would be classified outside of equity, based on the ability of the holder to require cash settlement. Also, EITF Topic D-98 discusses the accounting for a security that will become redeemable at a future determinable date and its redemption is variable. This is the case with the Note Warrants as the date is fixed, but the put or call price varies. The EITF gives two possible methodologies for valuing the securities. We have selected to account for the changes in redemption value immediately as they occur, and we will adjust the carrying value of the security to equal the redemption value at the end of each reporting period. On June 30, 2002, the purchase price under the Put Option was in a negative position and, as a result, no liability was recorded for the redemption of the Put Option.

Exchange Agreement and Exchange Warrants

On July 9, 2001, we entered into an agreement (the "Exchange Agreement") with Capital Bank to issue to Capital Bank, as agent for certain of its accredited investors, 1,893,505 shares of common stock and a warrant to purchase up to 1,839,405 shares of common stock at an exercise price of \$1.75 per share (the "Exchange Warrant") in satisfaction of all amounts due or to become due under the Loan Agreement, dated August 29, 2000, between us and Capital Bank (the "\$3 Million Loan") and a related Unsecured Promissory Note issued by us in favor of Capital Bank in the original principal amount of \$3,000,000 (the "\$3 Million Note"), including our obligations to issue to Capital Bank shares of common stock if the \$3 Million Note was not paid by certain due dates. The \$3 Million Note was due on July 1, 2001. This prospectus is part of a registration statement which registers for resale (a) 1,793,178 of the 1,893,505 shares issued on July 9, 2001, pursuant to the Exchange Agreement and (b) 1,741,926 of the 1,839,405 shares issuable upon the exercise of the Exchange Warrant.

Upon the closing of the Exchange Agreement effective July 9, 2001, we paid to Capital Bank a closing fee of \$325,000, payable in \$75,000 cash and by issuing to Capital Bank 105,932 shares of common stock, with the number of shares being equal to the quotient of \$250,000 divided by the last closing bid price of the common stock as quoted on the

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Nasdaq on June 26, 2001. In addition, for consulting services in connection with the Exchange Agreement, we issued to Herbert Strauss a five-year warrant for the purchase of up to 625,000 shares of common stock at a purchase price of \$1.75 per share (the "Capital Exchange Warrant"). The terms of the Exchange Warrant and the Capital Exchange Warrant are substantively similar.

The Exchange Warrant is exercisable at any time, from time to time, on or after July 9, 2001, and prior to July 9, 2006. If we propose to sell substantially all of our assets or merge or consolidate, or effect a merger or consolidation in which we are not the survivor, and the consideration to be received by us or our shareholders consists solely of cash, then the Exchange Warrant will terminate unless exercised by the effective date of the sale or merger transaction. If the consideration to be received by us or our shareholders consists, in whole or in part, of consideration other than cash, the holder of the Exchange Warrant will have the right thereafter to purchase the kind and amount of the shares and other securities and property which would have been owned or entitled to be received after such sale or merger transaction had the Exchange Warrant been exercised immediately prior to such transaction.

The exercise price and the number of shares of common stock issuable upon exercise of the Exchange Warrant are subject to adjustment, from time to time, if we:

- of * declare and pay a dividend in shares of common stock or make a distribution, without receipt
- consideration, in shares of common stock to holders of our outstanding common stock,
- * subdivide our outstanding shares of common stock,
- stock, or * combine our outstanding shares of common stock into a smaller number of shares of common
- * issue any shares of our capital stock in reclassification of our common stock for the number of
- shares of common stock issuable upon exercise of the Exchange Warrant.

Upon any such transaction, the Exchange Warrant will be adjusted so that the holder of the Exchange Warrant will be entitled to receive the kind and number of shares of common stock or of our other securities which the holder would have owned or been entitled to receive had the Exchange Warrant been exercised in advance of such transaction.

The holder of the Exchange Warrant will be entitled to purchase the number of shares of common stock or other securities, resulting from such adjustment at an exercise price per share of common stock or other security determined by:

- * multiplying the exercise price in effect immediately prior to such adjustment by the number of

shares

of common stock purchasable pursuant to the Exchange Warrant immediately prior to such adjustment,
divided by,

- * the number of shares of common stock or other securities resulting from such adjustment.

The issuance of the common stock, the Exchange Warrant and the Capital Exchange Warrant under the terms of the Exchange Agreement was made pursuant to Section 4(2) and/or Rule 506 under Regulation D promulgated under the Act. Capital Bank has advised us that it is precluded by Austrian law from disclosing the identities of its investors at the time of the Exchange Agreement transaction, without the investors' permission. Asserting Austrian law, Capital Bank would not disclose to us the identities of its investors, but did represent to us that all of its investors are accredited investors under Rule 501 of Regulation D promulgated under the Act. Certain of its investors recently gave permission to Capital Bank to disclose their identities in order to be included as a Selling Stockholder in this prospectus. In addition, Capital Bank has advised the Company that none of its investors beneficially own more than 4.9% of our common stock. See "POTENTIAL CHANGE OF CONTROL" for a discussion of Capital Bank's holdings of our securities.

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Until the summer of 2001, Herbert Strauss was employed by Capital Bank and was the Company's relationship contact at Capital Bank. During the summer of 2001, Capital Bank undertook a series of management changes. These changes included Mr. Strauss terminating his employment at Capital Bank and becoming a consultant to Capital Bank with the obligation to fulfill certain of his prior duties. It was during this period in which Mr. Strauss assisted the Company with the exchange of debt for equity. As compensation for his assistance to the Company, Mr. Strauss was issued the Common Stock Purchase Warrant, dated July 9, 2001, for the right to purchase up to 625,000 shares of the Company's common stock at an exercise price of \$1.75 per share.

Effective January 1, 2002, the Company and Mr. Strauss entered into a Consulting Agreement in which Mr. Strauss agreed to provide certain financial advisory and consulting services with respect to European investors only. Such services include assisting the Company with the introduction to investment bankers, general business development, and market exposure in Europe. The term of this agreement is one year, but will be terminated earlier if Capital Bank advises the Company that Capital Bank does not approve of the consulting arrangement. Mr. Strauss will be paid a consulting fee of \$5,000 per month during the term of the agreement.

BHC Warrants

On January 31, 2001, we entered into a definitive loan agreement with BHC Interim Funding, L.P. ("BHC"), pursuant to which BHC loaned us \$6 million (the "BHC Loan"). The BHC Loan was payable on March 31, 2002, with interest payable monthly on the outstanding principal balance of the BHC Loan at the annual rate of 13.75%. We repaid the BHC Loan in full on July 31, 2001. Pursuant to the terms of the BHC Loan, we issued to BHC certain warrants (the "BHC Warrants") for the purchase of up to 817,142 shares of common stock at an initial exercise price of \$1.4578 per share. This prospect **is part of the registration statement which registers for resale the 817,142 shares issuable upon the exercise of the BHC Warrants.**

The BHC Warrants allow the holder to exercise the BHC Warrant without paying the exercise price in cash. Upon a cashless exercise, the holder will receive the number of shares of common stock equal to:

- * the number of shares as to which the BHC Warrants are being exercised, minus
- * the number of shares having an aggregate fair market value equal to the product of (a) the exercise price multiplied by (b) the number of shares as to which the BHC Warrants are being exercised.

The exercise price and the number of shares of common stock issuable upon exercise of the BHC Warrants are subject to adjustment, from time to time, upon the occurrence of any of the following events. If we issue shares of common stock for a price per share less than the exercise price in effect before such issuance, the exercise price will be reduced to a price determined by multiplying the exercise price by a

fraction having:

- * the numerator equal to the total number of common stock shares outstanding plus the number of shares of common stock which the aggregate consideration received by us would purchase at such exercise price; and
- * the denominator equal to the total number of shares of common stock outstanding immediately after such issuance.

These adjustments will not be made as a result of the grant or exercise of rights or options under our existing stock purchase and stock option plans or under our warrants which were outstanding on January 1, 2001.

If we issue options or rights to subscribe for shares of common stock, or any securities convertible into or exchangeable for shares of common stock, for a price less than the exercise price, the exercise price in effect immediately prior to such issuance will be reduced to a price computed by the above-listed method. If we subdivide, combine, or pay a dividend in shares of common stock outstanding, the exercise price and number of shares issuable upon exercise of the

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BHC Warrants will be proportionately decreased, or increased, as appropriate. If the exercise price is adjusted, the number of shares of common stock issuable upon the exercise of the BHC Warrant will be equal to:

- * the product of: (a) the number of shares of common stock issuable upon the exercise of the BHC Warrant immediately prior to such adjustment, and (b) the exercise price immediately prior to such adjustment, divided by
- * the exercise price immediately after such adjustment.

The exercise price and the number of shares of common stock issuable upon exercise of the BHC Warrants are subject to adjustment, from time to time, if we:

- * reorganize or reclassify the outstanding shares of common stock;
- * merge or consolidate with another corporation; or
- * sell, lease or convey all, or substantially all, of our property, assets, business and goodwill to another entity.

Upon any such transaction, the BHC Warrant will be adjusted so that the holder of the BHC Warrant will be entitled to receive the kind and number of shares of common stock or of our other securities which the holder would have owned or been entitled to receive had the BHC Warrant been exercised in advance of such transaction.

If we make a distribution of assets or securities to our stockholders, prior to the expiration of the BHC Warrant and prior to the exercise of the BHC Warrant, the holder of the BHC Warrant will be entitled, upon the exercise, to receive, in addition to the common stock it is entitled to receive, the same kind and amount of assets or securities as would have been distributed to it in a distribution had it been the holder of record of shares of common stock receivable upon exercise of the BHC Warrant on the record date for determination of those entitled to receive the distribution.

If we dissolve, liquidate, or wind up our affairs at any time prior to the expiration or exercise of the BHC Warrant, the holder of the BHC Warrant will be entitled to receive, in lieu of our common stock, the same kind and amount of assets as would have been issued, distributed or paid to it upon the exercise of

the BHC Warrant on the record date for the determination of those entitled to receive any such liquidating distribution.

The holder of the BHC Warrants may, at any time and from time to time during the term of the BHC Warrants, request the registration of the BHC Warrant and common stock issuable upon the exercise of the BHC Warrants. In addition, the holder of the BHC Warrants is entitled, subject to certain conditions, to include the BHC Warrant and common stock issuable upon the exercise of the BHC Warrant in a registration statement covering other securities which the Registrant proposes to register.

National Warrants

On December 5, 2000, we entered into a financial advisory and consulting agreement (the "Advisory and Consulting Agreement") with National Securities Corporation ("National"). Pursuant to the terms of the Advisory and Consulting Agreement, National performed various financial advisory services for the Company, including disseminating information to the investment community at large; and advising us as to the timing and structure of future offerings of equity securities. Pursuant to the terms of the Advisory and Consulting Agreement, we issued to National two warrants (collectively, the "National Warrants"), consisting of (a) a warrant, dated June 1, 2001, for the purchase of up to 250,000 shares of common stock and exercisable for a period of five years at an exercise price of \$1.50 per share, and (b) a warrant, dated June 1, 2001, for the purchase of up to 360,000 shares of common stock and exercisable for a period of five years at an exercise price of \$1.75 per share. On July 30, 2002, National assigned a portion of the National Warrants to various

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brokers and entities controlled by brokers of National entitling the assignees to acquire 247,000 shares of common stock at an exercise price of \$1.50 per share and 340,000 shares of common stock at an exercise price of \$1.75 per share.

The terms of the National Warrants provide that the holder may exercise a National Warrant without paying the exercise price in cash. Upon a cashless exercise, the holder will receive the number of shares equal to the product of (a) the number of shares of common stock as to which the National Warrant is being exercised, multiplied by (b) a fraction, the numerator of which is the market price of our common stock minus the exercise price, and the denominator is the market price.

If we declare and pay a dividend in common stock into a greater number of shares, or if the outstanding shares of common stock are subdivided, combined or consolidated, then the number of shares issuable upon the exercise of the National Warrant or the exercise price will be proportionately increased or decreased, as appropriate.

If we merge or consolidate with another entity and we are not the surviving entity, or if we sell or convey all or substantially all of our property, the holder of a National Warrant may receive, upon its exercise, the kind and number of shares of common stock or of our other securities which the holder would have owned or been entitled to receive had the National Warrant been exercised in advance of such transaction.

The terms of the National Warrants provide that the holder has certain piggyback registration rights. This prospectus is part of the registration statement which registers for resale the 610,000 shares of our common stock that are issuable upon exercise of the National Warrants.

Consultant Warrants

We have issued an aggregate of 2,591,458 warrants to purchase common stock (collectively, the "Consultant Warrants") in connection with retaining and compensating Larkspur Capital Corporation ("Larkspur"), Ryan, Beck & Co. ("Ryan Beck"), and Strategic Growth International, Inc. ("Strategic") for consulting and advisory services rendered to us. These consulting services related to the negotiation and completion of our \$22 million credit facility, the BHC Loan, and the Purchase Agreement covering our Subordinated Notes. A portion of the Consultant Warrants issued to Larkspur and Ryan Beck were assigned by Larkspur and Ryan Beck to certain officers and/or managing directors of Larkspur and Ryan Beck or trusts controlled by such officer or managing director. Except as otherwise noted below, each of these warrants are for a term of five years with an exercise price of \$1.44 per share. This prospectus is part of the

registration statement which registers for resale the 2,591,458 shares of our common stock that are issuable upon the exercise of the Consultant Warrants.

In connection with retaining the services of Larkspur, Ryan Beck, and Strategic, we issued warrants to purchase an aggregate of 630,000 shares of common stock, consisting of (a) warrants issued to each of Larkspur and Ryan Beck, dated January 25, 2000, for the purchase of up to 75,000 shares and (b) warrants issued to Strategic, dated April 1, 1999, for the purchase of up to 480,000 shares. The warrants granted to Strategic are for a term of four years and have an exercise price of \$1.20 per share as to 240,000 shares and \$1.40 per share as to 240,000 shares.

In connection with the negotiation and completion of our \$22 million credit facility, we issued warrants for the purchase of an aggregate of 1,283,332 shares of common stock, consisting of (a) warrants issued to each of Larkspur and Ryan Beck, dated December 22, 2000, for the purchase of up to 534,722 shares, and (b) warrants issued to Strategic, dated December 22, 2000, for the purchase of up to 213,888 shares.

In connection with the negotiation and completion of the BHC Loan, we issued warrants for the purchase of an aggregate of 349,999 shares of common stock, consisting of (a) warrants issued to each of Larkspur and Ryan Beck, dated January 31, 2001, for the purchase of up to 85,069 shares, (b) warrants issued to Strategic dated February 1, 2001, for the purchase of up to 34,028 shares, (c) warrants issued to each of Larkspur and Ryan Beck, dated March 9, 2001, for the purchase of up to 60,764 shares, and (d) warrants issued to Strategic, dated March 9, 2001, for the purchase of up to 24,305 shares.

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In connection with the negotiation and completion of the Purchase Agreement and our Subordinated Notes, we issued warrants for the purchases of up to an aggregate of 328,127 shares of common stock consisting of (a) warrants issued to each of Larkspur and Ryan Beck, dated July 31, 2001, for the purchase of up to 136,720 shares, and (b) warrants issued to Strategic, dated July 31, 2001, for the purchase of up to 54,687 shares.

The terms of the Consultant Warrants provide that the holder may exercise a Consultant Warrant without paying the exercise price in cash. Upon a cashless exercise, the holder will receive the number of shares equal to the product of (a) the number of warrant shares as to which the warrant is being exercised, multiplied by (b) a fraction, the numerator of which is the market price of our common stock minus the exercise price, and the denominator is the market price.

The exercise price or number of shares issuable upon exercise of the Consultant Warrants may be proportionately increased or decreased, as appropriate, if we subdivide or combine our common stock, or pay a dividend in common stock. When the exercise price is adjusted, the number of shares issuable upon exercise will also be adjusted multiplying a number equal to the exercise price in effect immediately prior to such adjustment by the number of shares issuable upon exercise of the Consultant Warrants immediately prior to such adjustment and dividing the product by the adjusted exercise price.

SELLING STOCKHOLDERS

The following table sets forth as to each Selling Stockholder: (a) the name of each Selling Stockholder, (b) the amount of shares beneficially owned as of September 12, 2002, (c) the number of shares of common stock owned by each Selling Stockholder which are included under this prospectus, (d) the number of shares beneficially owned after the offering, assuming that all shares of common stock being offered hereby are sold and that such are outstanding, and (e) the percentage of common stock beneficially owned after completion of the offering. Unless otherwise noted, each Selling Stockholder has sole voting and investment power over the shares of common stock listed as beneficially owned by the Selling Stockholder.

The common stock being offered includes shares of common stock which may be acquired upon: (a) the exercise of outstanding warrants, whether such are currently exercisable, and/or (b) conversion of outstanding shares of preferred stock, whether or not such are currently convertible.

The percentage of common stock beneficially owned after completion of this offering assumes: (a) all shares of common stock covered by this prospectus are sold, (b) the Selling Stockholder does not acquire beneficial ownership of additional shares of common stock after the date of this prospectus, and

(c) we do not issue any additional shares of common stock after the date of this prospectus, except the shares of common stock which a person has the right to acquire upon the exercise of warrants and conversion of preferred stock outstanding as of the date of this prospectus, but such shares are not determined to be outstanding for the purpose of computing the percentage ownership of any other person. The amounts indicated are based on outstanding common stock of 34,298,382 shares as of September 12, 2002.

| <u>Selling Stockholder</u> | <u>Common Stock Beneficially Owned Prior to Offering</u> | <u>Common Stock Being Offered</u> | <u>Common Stock Beneficially Owned After Offering Number</u> | <u>% of Class</u> |
|---|--|---------------------------------------|--|-----------------------|
| Associated Mezzanine-PESI(I), L.P. | 712,073 ⁽¹⁾ | 712,073 | 0 | * |
| Associated Mezzanine Investors, L.L.C. | 20,000 ⁽¹⁾ | 20,000 | 0 | * |
| David Avital | 286,000 ⁽²⁾ | 286,000 | 0 | * |
| Michael Bergin | 184,500 ⁽¹⁾ | 184,500 | 0 | * |

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| <u>Selling Stockholder</u> | <u>Common Stock Beneficially Owned Prior to Offering</u> | <u>Common Stock Being Offered</u> | <u>Common Stock Beneficially Owned After Offering Number</u> | <u>% of Class</u> |
|----------------------------------|--|---------------------------------------|--|-----------------------|
| BHC Interim Funding, L.P.** | 817,142 ⁽¹⁾ | 817,142 | 0 | * |
| Bridge East Capital, L.P. | 569,658 ⁽¹⁾ | 569,658 | 0 | * |
| Catalyst Venture Capital, LLC** | 185,000 ⁽¹⁾ | 185,000 | 0 | * |
| CICI 1999 Qualified Annuity | 171,430 ⁽²⁾ | 171,430 | 0 | * |
| Gerald B. Cramer | 171,430 ⁽²⁾ | 171,430 | 0 | * |
| CRM 1999 Enterprise Fund 3 | 400,000 ⁽²⁾ | 400,000 | 0 | * |
| Paul Cronson** | 289,745 ⁽¹⁾ | 289,745 | 0 | * |
| Michael DiDonna** | 1,000 ⁽¹⁾ | 1,000 | 0 | * |
| Craig S. Eckenthal** | 114,286 ⁽²⁾ | 114,286 | 0 | * |
| Danny Ellis Living Trust | 700,000 ⁽³⁾ | 500,000 | 200,000 | * |
| Europa International, Inc. | 800,601 ⁽⁴⁾ | 800,601 | 0 | * |
| Harvey Gelfenbein | 57,142 ⁽²⁾ | 57,142 | 0 | * |
| Charlie Giaimo** | 7,000 ⁽¹⁾ | 7,000 | 0 | * |
| Christopher Todd Goodwin Trust** | 3,000 ⁽¹⁾ | 3,000 | 0 | * |
| Kelsey Ann Goodwin Trust** | 3,000 ⁽¹⁾ | 3,000 | 0 | * |
| Robert L. Goodwin** | 283,747 ⁽¹⁾ | 283,747 | 0 | * |
| A.C. Israel Enterprises | 571,430 ⁽²⁾ | 571,430 | 0 | * |
| Michael J. Kollender** | 265,542 ⁽¹⁾ | 265,542 | 0 | * |
| Kuekenhof Partners, L.P. | 80,000 ⁽²⁾ | 80,000 | 0 | * |
| Kuekenhof Equity Fund, L.P. | 120,000 ⁽²⁾ | 120,000 | 0 | * |
| Jack Lahav | 1,158,026 ⁽⁵⁾ | 1,142,858 | 15,168 | * |
| Joseph LaMotta | 57,142 ⁽²⁾ | 57,142 | 0 | * |

| | | | | |
|-----------------------------------|------------------------|---------|---|---|
| Jay B. Langner | 57,142 ⁽²⁾ | 57,142 | 0 | * |
| Rocco LaVista** | 13,000 ⁽¹⁾ | 13,000 | 0 | * |
| Carl Leschinski** | 10,000 ⁽¹⁾ | 10,000 | 0 | * |
| The F. M. Grandchildren Trust | 85,714 ⁽²⁾ | 85,714 | 0 | * |
| Mathers Associates | 457,142 ⁽²⁾ | 457,142 | 0 | * |
| Robert C. Mayer, Jr.** | 289,746 ⁽¹⁾ | 289,746 | 0 | * |
| Peter Melhado** | 230,000 ⁽²⁾ | 230,000 | 0 | * |
| Meera Murdeshwar** | 47,037 ⁽¹⁾ | 47,037 | 0 | * |
| National Securities Corporation** | 63,000 ⁽¹⁾ | 63,000 | 0 | * |

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| <u>Selling Stockholder</u> | <u>Common Stock Beneficially Owned Prior to Offering</u> | <u>Common Stock Being Offered</u> | <u>Common Stock Beneficially Owned After Offering Number</u> | <u>% of Class</u> |
|--|--|---------------------------------------|--|-----------------------|
| Pamela Equities Corp. | 85,714 ⁽²⁾ | 85,714 | 0 | * |
| Josef Paradis | 286,000 ⁽²⁾ | 286,000 | 0 | * |
| Princeton Avenue Partners, LLC** | 185,000 ⁽¹⁾ | 185,000 | 0 | * |
| Readington Associates | 114,286 ⁽²⁾ | 114,286 | 0 | * |
| Dr. Ralph Richart | 684,250 ⁽⁶⁾ | 450,000 | 234,250 | * |
| Randy F. Rock** | 265,540 ⁽¹⁾ | 265,540 | 0 | * |
| Edward J. Rosenthal Profit Sharing Plan | 57,142 ⁽²⁾ | 57,142 | 0 | * |
| Ryan Beck & Co.** | 381,838 ⁽¹⁾ | 381,838 | 0 | * |
| Yariv Sapir IRA | 171,428 ⁽²⁾ | 171,428 | 0 | * |
| Jeffrey Sherry** | 3,355 ⁽¹⁾ | 3,355 | 0 | * |
| Strategic Growth International, Inc. | 806,908 ⁽¹⁾ | 806,908 | 0 | * |
| Herbert Strauss | 625,000 ⁽¹⁾ | 625,000 | 0 | * |
| Scott Wheeler** | 1,500 ⁽¹⁾ | 1,500 | 0 | * |
| Bruce Wrobel | 300,000 ⁽²⁾ | 300,000 | 0 | * |
| Capital Bank-Grawe Gruppe AG, as agent for the following Selling Stockholders: ⁽⁷⁾⁽⁸⁾ | | | | |
| Ewald Altrichter | 19,802 | 19,802 | 0 | * |
| Thomas Amtmann | 80,793 | 80,793 | 0 | * |
| Dr. Thomas Bauer | 11,881 | 11,881 | 0 | * |
| Dr. Thomas Bernhart | 11,881 | 11,881 | 0 | * |
| Otto W. Beuchert | 11,881 | 11,881 | 0 | * |
| Capital Leben | 260,400 | 260,400 | 0 | * |
| Draxler Christa | 23,763 | 23,763 | 0 | * |
| Class Financial Holdings Ltd. | 486,249 ⁽⁹⁾ | 257,430 | 228,819 | * |
| Gabriele Diesel | 17,228 | 17,228 | 0 | * |

| | | | | |
|----------------------------|---------|---------|---|---|
| Wolfgang Diesel | 74,853 | 74,853 | 0 | * |
| Diesel Kinobetriebsgmbh | 22,773 | 22,773 | 0 | * |
| Ing. Otto Dragoun | 149,507 | 149,507 | 0 | * |
| Dragoun Projektentwicklung | 173,270 | 173,270 | 0 | * |
| Dr. Manfred Ecker | 114,853 | 114,853 | 0 | * |

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| <u>Selling Stockholder</u> | Common Stock Beneficially Owned Prior to Offering | Common Stock Being Offered | Common Stock Beneficially Owned After Offering Number Class | % of |
|----------------------------|--|---------------------------------------|--|-------------|
| Mag. Wolfgang Egger | 11,485 | 11,485 | 0 | * |
| Wolfgang Erber | 35,644 | 35,644 | 0 | * |
| Jakob Falkner | 264,697 ⁽¹⁰⁾ | 230,697 | 34,000 | * |
| Heidelinde Felber | 11,881 | 11,881 | 0 | * |
| Peter Felber | 14,852 | 14,852 | 0 | * |
| Wolfgang Fellner | 22,773 | 22,773 | 0 | * |
| FMZ Privatstiftung | 39,605 | 39,605 | 0 | * |
| Eifl Franz | 17,228 | 17,228 | 0 | * |
| Ing. Wilhelm Fritsch | 11,881 | 11,881 | 0 | * |
| Mag. Stefan Gfrerer | 34,654 | 34,654 | 0 | * |
| Markus Gfrerer | 17,228 | 17,228 | 0 | * |
| Peter Grasser | 79,209 | 79,209 | 0 | * |
| Dir. Günther Grassl | 34,654 | 34,654 | 0 | * |
| Dr. Andreas Grassl | 11,485 | 11,485 | 0 | * |
| Dr. Ursula Groier | 11,485 | 11,485 | 0 | * |
| DI Joachim Grutsch | 11,881 | 11,881 | 0 | * |
| Alex Hahl | 11,485 | 11,485 | 0 | * |
| Dr. Christian Harisch | 11,386 | 11,386 | 0 | * |
| Jürgen Hasenhütl | 11,881 | 11,881 | 0 | * |
| Mag. Helfried Heidinger | 35,644 | 35,644 | 0 | * |
| Mag. Thomas Heidinger | 29,703 | 29,703 | 0 | * |
| DI Andreas Heresch | 11,881 | 11,881 | 0 | * |
| Ing. Peter Hittaller | 22,773 | 22,773 | 0 | * |
| Dr. Margareta Hödl-Ganster | 79,209 | 79,209 | 0 | * |
| DI Ferdinand Jeindl | 13,862 | 13,862 | 0 | * |
| Dr. Erich Jeindl | 122,774 | 122,774 | 0 | * |
| Mag. Oskar Jurinec | 11,485 | 11,485 | 0 | * |
| Margarete Karner | 202,616 ⁽¹¹⁾ | 158,418 | 44,200 | * |
| Bernhard Kaufmann | 45,545 | 45,545 | 0 | * |
| Dr. Claudius Kern | 11,881 | 11,881 | 0 | * |
| Kurt Kinast | 16,832 | 16,832 | 0 | * |

| <u>Selling Stockholder</u> | <u>Common Stock Beneficially Owned Prior to Offering</u> | <u>Common Stock Being Offered</u> | <u>Common Stock Beneficially Owned After Offering</u> <u>Number</u> | <u>% of Class</u> |
|--|--|---------------------------------------|--|-----------------------|
| Mag. Roland Klar | 23,763 | 23,763 | 0 | * |
| Walter o. Mag. Elisabeth Kleinsasse | 11,881 | 11,881 | 0 | * |
| Gertaud oder Peter J. Kneissl | 55,446 | 55,446 | 0 | * |
| Alfred Knollmüller | 11,485 | 11,485 | 0 | * |
| Ingrid Köberl | 14,852 | 14,852 | 0 | * |
| Dr. Wilfried Köhler | 11,386 | 11,386 | 0 | * |
| Kurt Koller | 11,881 | 11,881 | 0 | * |
| DI Gernot Kornar | 26,535 | 26,535 | 0 | * |
| Mag. Ursula Krachler | 11,485 | 11,485 | 0 | * |
| Mag. Gerhard Krammer | 11,881 | 11,881 | 0 | * |
| Karin Krekel | 45,545 | 45,545 | 0 | * |
| Maria Regina Krenn | 23,763 | 23,763 | 0 | * |
| Kronberg Intern. Holdings S.A. | 544,749 ⁽¹²⁾ | 114,853 | 429,896 | 1.3% |
| Gerlinde Lang | 11,881 | 11,881 | 0 | * |
| Rudolf Laudon | 11,881 | 11,881 | 0 | * |
| Helga o. Dr. Robert Lipa | 34,654 | 34,654 | 0 | * |
| Gerald Mariacher | 13,862 | 13,862 | 0 | * |
| Renate Melcher | 19,802 | 19,802 | 0 | * |
| Elisabeth oder Michael Mittendrein | 11,881 | 11,881 | 0 | * |
| Manfred Mostbacher | 11,881 | 11,881 | 0 | * |
| Wolfgang oder Martina Nußhold | 138,616 | 138,616 | 0 | * |
| Dietrich Oberdorfer | 34,654 | 34,654 | 0 | * |
| Herbert Orthaber | 11,485 | 11,485 | 0 | * |
| Vinzenz Pagger | 34,654 | 34,654 | 0 | * |
| Helga Pfeifer | 17,288 | 17,228 | 0 | * |
| Markus Plank | 11,485 | 11,485 | 0 | * |
| Georg Plochberger | 345,550 | 345,550 | 0 | * |
| Hermann oder Karin Pörtl | 79,209 | 79,209 | 0 | * |
| Dr. Anne Prem | 57,427 | 57,427 | 0 | * |
| Privatstiftung Hofmann | 346,540 | 346,540 | 0 | * |

| <u>Selling Stockholder</u> | <u>Common Stock Beneficially Owned Prior to Offering</u> | <u>Common Stock Being Offered</u> | <u>Common Stock Beneficially Owned After Offering</u> <u>Number</u> | <u>% of Class</u> |
|----------------------------|--|---------------------------------------|--|-----------------------|
| Mag. Gerhard Rauchenwald | 11,485 | 11,485 | 0 | * |

| | | | | |
|--------------------------------|---------|---------|---|---|
| Dr. Oliver Reistenhofer | 79,209 | 79,209 | 0 | * |
| Robert Ringbauer | 11,881 | 11,881 | 0 | * |
| DI Divoky Rudolf | 11,881 | 11,881 | 0 | * |
| Elisabeth Rumpf | 11,881 | 11,881 | 0 | * |
| Gernot Rumpold | 69,308 | 69,308 | 0 | * |
| Josef Russold | 25,743 | 25,743 | 0 | * |
| Dr. Oliver Sauer | 11,881 | 11,881 | 0 | * |
| Erika Schatzmann | 59,407 | 59,407 | 0 | * |
| Claudia Schiller | 34,654 | 34,654 | 0 | * |
| Jutta Schnirring | 45,545 | 45,545 | 0 | * |
| Leopold Schreiber | 11,881 | 11,881 | 0 | * |
| Helga o. Josef Schubert | 29,703 | 29,703 | 0 | * |
| Evelyn Schwarz | 22,773 | 22,773 | 0 | * |
| Dipl. Ing. Wolfgang Steinbauer | 11,881 | 11,881 | 0 | * |
| DI Georg Stöttner | 34,654 | 34,654 | 0 | * |
| Franz oder Karin Teuschler | 22,773 | 22,773 | 0 | * |
| Ingeborg Teuschler | 11,881 | 11,881 | 0 | * |
| Rebecca u. Olivia Thomas | 11,881 | 11,881 | 0 | * |
| Mag. Siegwald Töffel | 57,427 | 57,427 | 0 | * |
| Venus Privatstiftung | 79,209 | 79,209 | 0 | * |
| Merkur Versicherung | 118,814 | 118,814 | 0 | * |
| Gottfried Vorraber | 11,485 | 11,485 | 0 | * |
| Dr. G. Wagner | 11,881 | 11,881 | 0 | * |
| Gerald Weindorfer | 11,485 | 11,485 | 0 | * |
| Albert Wiedner | 11,881 | 11,881 | 0 | * |
| Franz Wiedner | 11,881 | 11,881 | 0 | * |
| Anton Wieser jun. | 55,446 | 55,446 | 0 | * |
| Hannelore Wilhelmer | 11,881 | 11,881 | 0 | * |
| Dr. Helrnfried Winter | 138,616 | 138,616 | 0 | * |

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| <u>Selling Stockholder</u> | <u>Common Stock Beneficially Owned Prior to Offering</u> | <u>Common Stock Being Offered</u> | <u>Common Stock Beneficially Owned After Offering Number</u> | <u>% of Class</u> |
|----------------------------|--|---------------------------------------|--|-----------------------|
| Christina Wolf | 11,485 | 11,485 | 0 | * |
| Dr. Otto Wusche | 11,485 | 11,485 | 0 | * |
| Susan Wuthe | 11,881 | 11,881 | 0 | * |
| Mag. Alexander Zrost | 57,427 | 57,427 | 0 | * |

* Less than 1%.

** This Selling Stockholder is an affiliate of a registered broker-dealer.

(1) All of the shares indicated are issuable upon the exercise of warrants.

(2) One-half of the shares indicated are issuable upon the exercise of warrants.

(3) Includes 250,000 shares issuable upon the exercise of warrants and 100,000 owned of record by D.W.

Investments, Inc. of which Mr. Ellis is the sole stockholder.

- (4) Includes 571,428 shares issuable upon the exercise of warrants.
- (5) Includes 571,429 shares issuable upon the exercise of warrants and 15,000 issuable upon the exercise of options.
- (6) Includes 225,000 shares issuable upon the exercise of warrants.
- (7) As of September 12, 2002, Capital Bank owned of record, as agent for certain accredited investors, 9,258,672 shares of common stock representing 27.0% of our issued and outstanding common stock. As of that date, Capital Bank also had the right to acquire an additional 6,025,317 shares of common stock, comprised of (a) 4,358,650 shares of common stock issuable under various warrants held by Capital Bank, as agent for certain investors and (b) 1,666,667 shares of common stock issuable to Capital Bank upon the conversion of 2,500 shares of Series 17 Preferred held by Capital Bank, as agent for certain investors. If Capital Bank were to acquire all of the shares of common stock issuable upon exercise of the various warrants held by Capital Bank and the shares of common stock issuable upon conversion of the Series 17 Preferred, then Capital Bank would own of record 15,283,989 shares of common stock, representing 37.9% of the issued and outstanding common stock (assuming no other issuances of our common stock). The Selling Stockholders identified in this table under the caption "Capital Bank-Grawe Gruppe AG, as agent for the following Selling Stockholders" include 109 persons and entities which, in the aggregate, beneficially own 3,143,115 shares of the common stock that are owned of record by Capital Bank and 2,725,548 shares of common stock issuable upon the exercise of warrants held in Capital Bank's name. The warrants held in Capital Bank's name are exercisable at exercise prices ranging from \$1.4219 to \$1.9688 per share of common stock. Capital Bank may also acquire additional shares as payment of dividends on the Series 17 Preferred. None of the shares included in this prospectus are being offered for the account of Capital Bank. Capital Bank has advised us that it is holding these warrants and shares on behalf of numerous clients, all of which are accredited investors. Although Capital Bank is the record holder of the shares of common stock and warrants described in this note, Capital Bank has advised us that (a) Capital Bank does not believe it is a beneficial owner of the common stock; (b) Capital Bank does not believe that it is required to file reports under Section 16(a) or Section 13(d) of the Exchange Act; and (c) Capital Bank holds the common stock as a nominee only, it does not exercise voting or investment power over the common stock held in its name, and no one investor of Capital Bank for which it holds our common stock

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beneficially owns more than 4.9% of our issued and outstanding common stock. Based on these representations by Capital Bank, we believe that Capital Bank does not **have, or share,** voting or dispositive control, either directly or indirectly, of the shares of common stock owned of record by Capital Bank. Also, based on Capital Bank's representations and because Capital Bank (x) has no right to, and is not believed to possess the power to, exercise control over our management or our policies; (y) has not nominated, and has not sought to nominate, a director to our board; and (z) has no representative serving as our executive officer, we do not believe that Capital Bank is our affiliate. Capital Bank's address is Burgring 16, 8010 Graz, Austria. Capital Bank has advised us that it is a banking institution regulated by the banking regulations of Austria. Capital Bank is a wholly owned subsidiary of Grazer Wechselfeitige Versicherung Aktiengesellschaft ("Grazer"). Capital Bank has advised us that Grazer is wholly owned by Grawe Vermögensverwaltung, a mutual insurance association ("Grawe"). Capital Bank has further advised us that the owners of Grawe are all insurance holders of Grazer with an insurance agreement for more than one year. See "POTENTIAL CHANGE IN CONTROL."

(8) Unless otherwise indicated, of the number of shares of common stock beneficially owned by each of the individuals and entities listed under the heading "Capital Bank Grawe-Gruppe AG, as agent for the following Selling Stockholders," approximately 50.5% are issued and outstanding, and approximately 49.5% are issuable upon the issuance of outstanding warrants. For example, if a Selling Stockholder listed under such heading is noted as beneficially owning 10,000 shares, those shares would be comprised of 5,050 issued and outstanding shares and 4,950 shares issuable upon the exercise of warrants.

(9) Includes 200,530 shares issuable upon the exercise of warrants.

(10) Includes 148,197 shares issuable upon the exercise of warrants.

(11) Includes 122,618 shares issuable upon the exercise of warrants.

(12) Includes 90,853 shares issuable upon the exercise of warrants.

PLAN OF DISTRIBUTION

The Shares may be offered and sold from time to time by the Selling Stockholders, or by pledges, donees, transferees or other successors in interest. The Selling Stockholders will act independently of us in making decisions with respect to the timing, market, or otherwise at prices related to the then current market price or in negotiated transactions. The Shares may be sold by the Selling Stockholders in one or more transactions on the Nasdaq and the BSE or otherwise at market prices then prevailing or in privately negotiated transactions. The Shares may be sold by one or more of the following:

- * ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- * purchases and resale by a broker-dealer for its account pursuant to this prospectus; and
- * a block trade in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction.

We have not been advised by the Selling Stockholders that they have, as of the date hereof, made any arrangements relating to the distribution of the Shares covered by this prospectus, except that certain of the Selling Stockholders are broker-dealers. See "SELLING STOCKHOLDERS." Each Selling Stockholder that is an affiliate of a broker-dealer has advised us that such Selling Stockholder (a) acquired the shares covered by this prospectus in the ordinary course of business, and (b) at the time of such purchase, the Selling Stockholder had no agreements or understandings, directly or indirectly, with any person to distribute such shares. In effecting sales, broker-dealers engaged by the Selling Stockholders may arrange for other broker-dealers to participate, and, in such case, broker-dealers will receive commissions or discounts from the Selling Stockholders in amounts to be negotiated immediately prior to sale.

In offering the Shares, the Selling Stockholders and any broker-dealers and any other participating broker-dealers who execute sales for the Selling Stockholders may be deemed to be "underwriters" within the meaning of the

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Act in connection with such sales. Accordingly, any profits realized by the Selling Stockholders and the compensation of such broker-dealer may be deemed to be underwriting discounts and commissions. Any Shares covered by this prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

LEGAL OPINION

Conner & Winters, P.C., Oklahoma City, Oklahoma will opine as to the validity of the shares of Common stock being offered hereby.

EXPERTS

Our financial statements and schedules included in our annual report on Form 10-K for the year

ended December 31, 2001, have been audited by BDO Seidman LLP, independent certified public accountants to the extent and for the periods set forth in their report incorporated herein by reference, and are incorporated by reference herein in reliance upon such report given upon the authority of said firm as experts in auditing and accounting.

The financial statements of M&EC for the years ended December 31, 2000, and 1999 included in our definitive proxy statement, filed May 9, 2002, relating to our Special Meeting (the "Special Meeting Proxy") have been audited by Gallogly Fernandez & Riley, LLP ("GFR"), independent certified public accountants to the extent and for the periods set forth in their report incorporated herein by reference, and are incorporated by reference herein in reliance upon such report given upon the authority of said firm as experts in auditing and accounting.

Approximately 95% and 94% of the total hours spent on the audit of our financial statements for the years ended December 31, 2000 and 2001, respectively, were spent by GFR, as a member of the BDO alliance network of firms. Members of the BDO alliance network of firms, including GFR, are not full time, permanent employees of BDO.

The financial statements of our subsidiary, Diversified Scientific Services, Inc., included in the Special Meeting Proxy have been incorporated in reliance on the report of Arthur Andersen LLP, independent certified public accountants. We have not been able to obtain, after reasonable efforts, the written consent of Arthur Andersen LLP to the inclusion of its report in this prospectus, and we have not filed that consent in reliance on Rule 437a promulgated under the Act. Because Arthur Andersen has not consented to the inclusion of its report in this prospectus, your ability to assert claims against Arthur Andersen may be limited. In particular, because of this lack of consent, you will not be able to sue Arthur Andersen under Section 11(a)(4) of the Act for untrue statements of a material fact, if any, contained in the financial statements audited by Arthur Andersen or omissions to state a material fact, if any required to be stated in those financial statements.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C., 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public on the SEC's web site at <http://www.sec.gov>.

The SEC allows us to "incorporate by reference" the information we file with it. This allows us to disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act until the Selling Stockholders sell all the Shares:

- * Our annual report on Form 10-K for the fiscal year ended December 31, 2001; and

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- * Our quarterly report on Form 10-Q for the quarter ended March 31, 2002; and
- * Our definitive proxy statement filed on May 9, 2002, relating to the Special Meeting held on June 14, 2002; and
- * Our current report on Form 8-K filed on June 19, 2002;
- * Our current report on Form 8-K filed on August 1, 2002;
- * Our quarterly report on Form 10-Q for the quarter ended June 30, 2002;
- * Our definitive proxy statement filed on October 9, 2002, relating to our 2002 Annual Meeting of Stockholders;
- * Our quarterly report on Form 10-Q for the quarter ended September 30, 2002;
- * Our current report on Form 8-K filed on November 26, 2002; and

* Description of our common stock contained in our Registration Statement on Form 8-A dated October 30, 1992.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address and telephone number:

Perma-Fix Environmental Services, Inc.
Attention: Richard T. Kelecy
1940 Northwest 67th Place
Gainesville, Florida 32653
Telephone (352) 373-4200

You should rely only on the information contained in this prospectus or any supplement and in the documents incorporated by reference. We have not authorized anyone else to provide you with different information. The Selling Stockholders will not make an offer of these Shares in any state where the offer is not permitted.

This prospectus is part of a registration statement we filed with the SEC (Registration No. 333-70676). That registration statement and the exhibits filed along with the registration statement contain more information about the shares sold by the Selling Stockholders. Because information about contracts referred to in this prospectus is not always complete, you should read the full contracts which are filed as exhibits to the registration statement. You may read and copy the full registration statement and its exhibits at the SEC's public reference rooms or their web site.

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PermaFix
environmental services

17,931,966 Shares

Perma-Fix Environmental Services, Inc.

Common Stock

Prospectus

_____, 2002

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. *Other Expenses of Issuance and Distribution*

Nature of Expense

| | |
|-------------------------------------|----------------------|
| SEC Registration Fee | \$ 14,539.26 |
| Legal Fees (Including Blue Sky) . . | \$162,000.00 |
| Accounting Fees and Expenses . . | \$ 11,000.00 |
| Printing. | \$ 2,500.00 |
| Miscellaneous | \$ <u>2,500.00</u> |
| Total | \$ <u>192,539.26</u> |

The foregoing expenses, except for the registration fee, are estimated pursuant to Item 511 of Regulation S-K.

Item 15. *Indemnification of Officers and Directors*

Section 145 of the Delaware Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against amounts paid and expenses incurred in connection with an action or proceeding to which he is or is threatened to be made a party by reason of such position, if such person shall have acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal proceeding, if such person had no reasonable cause to believe his conduct was unlawful; provided that, no indemnification shall be made with

respect to any matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the adjudicating court determines that, despite the adjudication of liability but in view of all the circumstance of the case, such person is fairly and reasonably entitled to indemnification.

Article EIGHTH of our Restated Certificate of Incorporation, as amended, provides as follows with respect to the indemnification of our officers and directors:

All persons who the Corporation is empowered to indemnify pursuant to the provisions of Section 145 of the General Corporation Law of the State of Delaware (or any similar provision or provisions of applicable law at the time in effect), shall be indemnified by the Corporation to the full extent permitted thereby. The foregoing right of indemnification shall not be deemed to be exclusive of any other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. No repeal or amendment of this Article EIGHTH shall adversely affect any rights of any person pursuant to this Article EIGHTH which existed at the time of such repeal or amendment with respect to acts or omissions occurring prior to such repeal or amendment.

Our Restated Certificate of Incorporation, as amended, provides that no director shall be personally liable to us or its stockholders for any monetary damages for breaches of fiduciary duty as a director, provided that this provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to us or our stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) under Section 174 of the General Corporation Law of the State of Delaware; or (iv) for any transaction from which the director derived an improper personal benefit.

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Item 16. Exhibits

| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|---|
| 2.1 | Stock Purchase Agreement, dated January 18, 2001, among the Registrant; East Tennessee Materials and Energy Corporation; Performance Development Corporation; Joe W. Anderson; Ronald W. Anderson; M. Joy Anderson; Russell R. and Cindy E. Anderson; Charitable Remainder Unitrust of William Paul Cowell, Kevin Cowell, Trustee; Joe B. and Angela H. Fincher; Ken-Ten Partners; Michael W. Light; Management Technologies, Incorporated; M&EC 401(k) Plan and Trust; PDC 401(k) Plan and Trust; Robert N. Parker; James C. Powers; Richard William Schenk, Trustee of the Richard Schenk Trust dated November 5, 1998; Talahi Partners; Hillis Enterprises, Inc.; Tom Price and Virginia Price; Thomas John Abraham, Jr. and Donna Ferguson Abraham; and Bill J. Hillis, is incorporated by reference from Exhibit 2.1 to the Registrant's Current Report on Form 8-K, dated January 31, 2001, and filed on February 26, 2001. |
| 4.3 | Form of Subscription Agreement, as incorporated by reference from Exhibit 4.2 to the Registrant's Current Report on Form 8-K dated June 15, 2001, and filed on July 5, 2001. |
| 5.1* | Opinion of Conner & Winters, a Professional Corporation. |
| 10.1 | Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. 1GB-99446V, dated June 23, 1998, as incorporated by reference from Exhibit 10.1 to the Registrant's Form 10-Q for the quarter ended September 30, 1998, and filed on November 16, 1998. |
| 10.2 | Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. 1GB-99447V, dated June 23, 1998, as incorporated by reference from Exhibit 10.2 to the Registrant's Form 10-Q for the quarter ended September 30, 1998, and filed on November 16, 1998. |
| 10.3 | Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. 1GB-99448V, dated June 23, 1998, as incorporated by reference from Exhibit 10.3 to the Registrant's Form 10-Q for the quarter ended September 30, 1998, and filed on November 16, 1998. |
| 10.4 | Note and Warrant Purchase Agreement, dated July 31, 2001, among the Registrant, |

- Associated Mezzanine Investors-PESI (I), L.P. and Bridge East Capital L.P., as incorporated by reference from Exhibit 99.1 to the Registrant's Current Report on Form 8-K dated July 30, 2001, and filed on August 7, 2001.
- 10.5 Form of 13.50% Senior Subordinated Note Due 2006, as incorporated by reference from Exhibit 99.2 to the Registrant's Current Report on Form 8-K dated July 30, 2001, and filed on August 7, 2001.
- 10.6 Option Agreement, dated July 31, 2001, among the Registrant, Associated Mezzanine Investors-PESI (I), L.P. and Bridge East Capital L.P., as incorporated by reference from Exhibit 99.8 to the Registrant's Current Report on Form 8-K dated July 30, 2001, and filed on August 7, 2001.
- 10.7* Financial Advisory and Consulting Agreement, dated December 5, 2000, between the Registrant and National Securities Corporation.
- 10.8 Debt-For-Stock Exchange Agreement, dated effective July 9, 2001, between the Registrant and Capital Bank-Grawe Gruppe AG, as incorporated by reference from Exhibit 10.1 to the Registrant's Current Report on Form 8-K dated July 9, 2001, and filed on July 20, 2001.

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| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|--|
| 10.9 | Warrant, dated January 31, 2001, granted by the Registrant to BHC Interim Funding, L.P. for the right to purchase up to 817,142 shares of the Registrant's common stock at an exercise price of \$1.4578, as incorporated by reference from Exhibit 99.6 to the Registrant's Current Report on Form 8-K, dated January 31, 2001, and filed on February 26, 2001. |
| 10.10 | Common Stock Purchase Warrant, dated August 29, 2000, granted by the Registrant to Capital Bank-Grawe Gruppe AG (f/k/a RBB Bank Aktiengesellschaft) for the right to purchase up to 150,000 shares of the Registrant's common stock at an exercise price of \$1.50 per share, as incorporated by reference from Exhibit 4.3 to the Registrant's Current Report on Form 8-K, dated August 31, 2000, and filed on September 5, 2000. |
| 10.11 | Warrant, dated November 29, 2000, granted by the Registrant to Capital Bank (f/k/a RBB Bank Aktiengesellschaft) for the right to purchase up to 300,000 shares of the Registrant's common stock at an exercise price of \$1.8750, as incorporated by reference from Exhibit 99.5 to the Registrant's Current Report on Form 8-K, dated December 22, 2000, and filed on January 17, 2001. Substantially similar warrants for the purchase of an aggregate 570,000 shares were issued to Capital Bank as follows: (a) a warrant, dated October 30, 2000, for the right to purchase up to 150,000 shares at an exercise price of \$1.625; (b) a warrant, dated December 29, 2000, for the right to purchase up to 105,000 shares at an exercise price of \$1.4219, (c) a warrant, dated January 31, 2001, for the right to purchase up to 105,000 shares at an exercise price of \$1.9688, (d) a warrant, dated February 28, 2001, for the right to purchase up to 105,000 shares at an exercise price of \$1.9375, and (e) a warrant, dated March 30, 2001, for the right to purchase up to 105,000 shares at an exercise price of \$1.8125. Copies of these Warrants will be provided to the Commission upon request. |
| 10.12* | Common Stock Purchase Warrant, dated July 9, 2001, granted by the Registrant to Capital Bank-Grawe Gruppe AG for the right to purchase up to 1,839,405 shares of the Registrant's common stock at an exercise price of \$1.75 per share. |
| 10.13* | Common Stock Purchase Warrant, dated July 9, 2001, granted by the Registrant to Herbert Strauss for the right to purchase up to 625,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share. |
| 10.14* | Common Stock Purchase Warrant, dated June 1, 2001, granted by the Registrant to National Securities Corporation for the right to purchase of up to 250,000 shares of the Registrant's common stock at an exercise price of \$1.50 per share. A substantially similar warrant, dated June 1, 2001, was granted by the Registrant to National Securities Corporation for the purchase of up to 360,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share. A copy of this Warrant will be provided to the Commission upon request. |
| 10.15* | Common Stock Purchase Warrant, dated April 1, 1999, granted by the Registrant to Strategic Growth International, Inc. for the right to purchase up to 240,000 shares of the Registrant's common stock at an exercise price of \$1.20 per share. Substantially similar warrants for the purchase of an aggregate 566,908 shares were issued to |

Strategic Growth International, Inc. as follows: (a) a warrant, dated April 1, 1999 for the right to purchase up to 240,000 shares at an exercise price of \$1.40, (b) a warrant, dated December 22, 2000, for the right to purchase up to 213,888 shares at an exercise price of \$1.44, (c) a warrant, dated February 1, 2001, for the right to purchase up to 34,028 shares at an exercise price of \$1.44, (d) a warrant, dated March 9, 2001, for the right to purchase up to 24,305 shares at an exercise price of \$1.44, and (e) a warrant, dated July 31, 2001, for the right to purchase up to 54,687 shares at an exercise price of \$1.44. Copies will be provided to the Commission upon request.

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| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|---|
| 10.16* | Warrant Agreement, dated January 25, 2000, granted by the Registrant to Ryan, Beck & Co. ("Ryan Beck") for the purchase of up to 33,750 shares of the Registrant's common stock at an exercise price of \$1.44 per share. Substantially similar Warrant Agreements, dated January 25, 2000, for the right to purchase up to an aggregate 116,250 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Randy Rock (20,625 shares), Michael Kollender (20,625 shares), Robert Goodwin (20,000 shares), Robert C. Mayer, Jr. (23,000 shares), Paul Cronson (23,000 shares), Meera Murdeshwar (6,000 shares), Kelsey Ann Goodwin Trust (1,500 shares), and Christopher Todd Goodwin Trust (1,500 shares). Copies will be provided to the Commission upon request. |
| 10.17 | Warrant, dated December 22, 2000, issued by the Registrant to Ryan, Beck & Co. for the purchase of 213,889 shares of the Registrant's common stock, as incorporated by reference from Exhibit 99.6 to the Registrant's Current Report on Form 8-K dated January 31, 2001, and filed on February 26, 2001. Substantially similar Warrants, dated December 22, 2000, for the right to purchase up to an aggregate 855,555 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (26,737 shares), Michael Kollender (147,048 shares), Randy Rock (147,048 shares), Robert Goodwin (166,907 shares), Robert C. Mayer, Jr. (169,908 shares), Paul Cronson (169,907 shares), Meera Murdeshwar (25,000 shares), Kelsey Ann Goodwin Trust (1,500 shares), and Christopher Todd Goodwin Trust (1,500 shares). Copies will be provided to the Commission upon request. |
| 10.18* | Warrant Agreement, dated January 31, 2001, granted by the Registrant to Ryan, Beck & Co. for the right to purchase up to 34,028 shares of the Registrant's common stock at an exercise price of \$1.44 per share. Substantially similar Warrants, dated January 31, 2001, for the right to purchase up to an aggregate 136,110 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (4,253 shares), Michael Kollender (23,394 shares), Randy Rock (23,394 shares), Robert Goodwin (26,690 shares), Robert C. Mayer, Jr. (26,689 shares), Paul Cronson (26,690 shares), and Meera Murdeshwar (5,000 shares). Copies will be provided to the Commission upon request. |
| 10.19* | Warrant Agreement, dated March 9, 2001, granted by the Registrant to Ryan, Beck & Co. for the right to purchase up to 24,306 shares of the Registrant's common stock at an exercise price of \$1.44 per share. Substantially similar Warrants, dated March 9, 2001, for the right to purchase up to an aggregate 97,222 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (3,038 shares), Michael Kollender (16,710 shares), Randy Rock (16,710 shares), Robert Goodwin (19,255 shares), Robert C. Mayer, Jr. (19,255 shares), Paul Cronson (19,254 shares), and Meera Murdeshwar (3,000 shares). Copies will be provided to the Commission upon request. |
| 10.20* | Warrant Agreement, dated July 31, 2001, granted by the Registrant to Ryan Beck & Co. for the right to purchase up to 54,688 shares of the Registrant's common stock at an exercise price of \$1.44 per share. Substantially similar Warrants, dated July 31, 2001, for the right to purchase up to an aggregate 218,752 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (6,836 shares), Paul Cronson (43,295), Michael Kollender (37,598 shares), Randy Rock (37,598 shares), Robert Goodwin (43,294 shares), Robert C. Mayer, Jr. (43,294 shares), and Meera Murdeshwar (6,837 shares). Copies will be provided to the Commission upon request. |

| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|--|
| 10.21* | Warrant to Purchase Common Stock, dated July 30, 2001, granted by the Registrant to David Avital for the purchase of up to 143,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share. Substantially similar warrants for the purchase of an aggregate 4,254,566 were issued to Capital Bank (842,995 shares), CICI 1999 Qualified Annuity Trust (85,715 shares), Gerald D. Cramer (85,715 shares), CRM 1999 Enterprise Fund 3 (200,000 shares), Craig S. Eckenthal (57,143 shares), Danny Ellis Living Trust (250,000 shares), Europa International, Inc. (571,428 shares), Harvey Gelfenbein (28,571 shares), A. C. Israel Enterprises (285,715 shares), Kuekenhof Partners, L.P. (40,000), Kuekenhof Equity Fund, L.P. (60,000 shares), Jack Lahav (571,429 shares), Joseph LaMotta (28,571 shares), Jay B. Langner (28,571 shares), The F. M. Grandchildren Trust (42,857 shares), Mathers Associates (228,571 shares), Peter Melhado (115,000 shares), Pamela Equities Corp. (42,857 shares), Josef Paradis (143,000 shares), Readington Associates (57,143 shares), Dr. Ralph Richart (225,000 shares), Edward J. Rosenthal Profit Sharing Plan (28,571 shares), Yariv Sapir IRA (85,714 shares), and Bruce Wrobel (150,000 shares), respectively. Copies will be provided to the Commission upon request. |
| 10.22* | Common Stock Purchase Warrant, dated July 30, 2001, granted by the Registrant to Ryan, Beck & Co. for the purchase of 20,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share. Substantially similar warrants, dated July 30, 2001, for the purchase of an aggregate 74,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share were issued to Ryan, Beck & Co., L.L.C. (14,000 shares), Larkspur Capital Corporation (34,000 shares) and National Securities Corporation (40,000 shares). Copies will be provided to the Commission upon request. |
| 10.23* | Common Stock Purchase Warrant, dated July 31, 2001, granted by the Registrant to Associated Mezzanine Investors-PESI (I), L.P. for the purchase of up to 712,073 shares of the Registrant's common stock at an exercise price of \$1.50 per share. A substantially similar warrant was issued to Bridge East Capital L.P. for the right to purchase of up to 569,658 shares of the Registrant's common stock, and a copy will be provided to the Commission upon request. |
| 10.24* | Subcontract Change Notice between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. BA-99446/7 and 8F, dated July 2, 2002. Exhibits to this Contract as listed therein are omitted, but a copy of each will be provided to the Commission upon request. |
| 23.1* | Consent of BDO Seidman, LLP. |
| 23.2* | Consent of Gallogly Fernandez & Riley, LLP. |
| 23.3* | Consent of Conner & Winters, as contained in Exhibit 5.1 hereto and incorporated herein by reference. |
| 24.1* | Powers of Attorney for Messrs. Zwecker, Colin, and Sullivan, as contained in the Power of Attorney of the signature page included in this Registration Statement. |
| 24.2* | Power of Attorney for Messrs. Jack Lahav and Alfred C. Warrington, IV. |

*Previously filed

Item 17. *Undertakings*

The Company hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective

amendment
to the Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Act;

date
which,
forth
(ii) To reflect in the prospectus any facts or events arising after the effective
of this Registration Statement (or the most recent post-effective amendment thereof)
individually or in the aggregate, represent a fundamental change in the information set
in the Registration Statement;

not
information
(iii) To include any material information with respect to the plan of distribution
previously disclosed in the Registration Statement or any material change to such
in the Registration Statement;

included
furnished
of
Provided, however, that paragraphs (1)(i) and (1)(ii) do not apply if the information required to be
in a post-effective amendment by those paragraphs is contained in periodic reports filed with or
to the Commission by the Company pursuant to Section 13 or 15(d) of the Securities Exchange Act
1934, as amended (the "Exchange Act"), that are incorporated by reference in this Registration
Statement.

amendment shall
offering of
(2) That, for the purpose of determining any liability under the Act, each post-effective
be deemed to be a new registration statement relating to the securities offered therein, and the
such securities at the time shall be deemed to be the initial bona fide offering thereof.

being
(3) To remove from registration by means of a post-effective amendment any of the securities
registered which remain unsold at the termination of the offering.

The Company hereby undertakes that, for purposes of determining any liability under the Act, each
filing of the Company's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where
applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the
Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a
new registration statement relating to the securities offered therein, and the offering of such securities at
the time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Act may be permitted to directors, officers
and controlling persons of the Company pursuant to the indemnification provisions described herein, or
otherwise, the Company has been advised that in the opinion of the Commission such indemnification is
against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for
indemnification against such liabilities (other than the payment by the Company of expenses incurred or
paid by a director, officer or controlling person of the Company in the successful defense of any action, suit
or proceeding) is asserted by such director, officer or controlling person in connection with the securities
being registered, the Company will, unless in the opinion of its counsel the matter has been settled by
controlling precedent, submit to a court of appropriate jurisdiction the question whether such
indemnification by it is against public policy as expressed in the Act and will be governed by the final
adjudication of such issue.

grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Gainesville, State of Florida, on the 27th day of November, 2002.

PERMA-FIX ENVIRONMENTAL
SERVICES, INC.

By: /s/ Louis Centofanti
Dr. Louis F. Centofanti
Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|---|---|-------------------|
| <u>/s/ Louis Centofanti</u> Dr. Louis F. Centofanti | Chairman of the Board of Directors, President, and Chief Executive Officer (Principal Executive Officer) | November 27, 2002 |
| <u>/s/ Richard T. Kelecy</u> Richard T. Kelecy | Chief Financial Officer (Principal Financial and Accounting Officer) | November 27, 2002 |
| <u>*</u> Mark A. Zwecker | Director | November 27, 2002 |
| <u>*</u> Jon Colin | Director | November 27, 2002 |
| <u>*</u> Thomas P. Sullivan | Director | November 27, 2002 |
| <u>*</u> Jack Lahav | Director | November 27, 2002 |
| <u>*</u> Alfred C. Warrington, IV | Director | November 27, 2002 |
| * By <u>/s/ Louis Centofanti</u> 27, 2002 Dr. Louis F. Centofanti Attorney In Fact | | November |

EXHIBIT INDEX

| <u>Exhibit No.</u> | <u>Description</u> | <u>Sequential Page No.</u> |
|---------------------------|---|-----------------------------------|
| 2.1 | Stock Purchase Agreement, dated January 18, 2001, among the Registrant; East Tennessee Materials and Energy Corporation; Performance Development Corporation; Joe W. Anderson; Ronald W. Anderson; M. Joy Anderson; Russell R. and Cindy E. Anderson; Charitable Remainder Unitrust of William Paul Cowell, Kevin Cowell, Trustee; Joe B. and Angela H. Fincher; Ken-Ten Partners; Michael W. Light; Management Technologies, Incorporated; M&EC 401(k) Plan and Trust; PDC 401(k) Plan and Trust; Robert N. Parker; James C. Powers; Richard William Schenk, Trustee of the Richard Schenk Trust dated November 5, 1998; Talahi Partners; Hillis Enterprises, Inc.; Tom Price and Virginia Price; Thomas John Abraham, Jr. and Donna Ferguson Abraham; and Bill J. Hillis, is incorporated by reference from Exhibit 2.1 to the Registrant's Current Report on Form 8-K, dated January 31, 2001, and filed on February 26, 2001. | |
| 4.3 | Form of Subscription Agreement, as incorporated by reference from Exhibit 4.2 to the Registrant's Current Report on Form 8-K dated June 15, 2001, and filed on July 5, 2001. | |
| 5.1* | Opinion of Conner & Winters, a Professional Corporation. | 45 |
| 10.1 | Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. 1GB-99446V, dated June 23, 1998, as incorporated by reference from Exhibit 10.1 to the Registrant's Form 10-Q for the quarter ended September 30, 1998, and filed on November 16, 1998. | |
| 10.2 | Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. 1GB-99447V, dated June 23, 1998, as incorporated by reference from Exhibit 10.2 to the Registrant's Form 10-Q for the quarter ended September 30, 1998, and filed on November 16, 1998 | |
| 10.3 | Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. 1GB-99448V, dated June 23, 1998, as incorporated by reference from Exhibit 10.3 to the Registrant's Form 10-Q for the quarter ended September 30, 1998, and filed on November 16, 1998. | |
| 10.4 | Note and Warrant Purchase Agreement, dated July 31, 2001, among the Registrant, Associated Mezzanine Investors-PESI (I), L.P. and Bridge East Capital L.P., as incorporated by reference from Exhibit 99.1 to the Registrant's Current Report on Form 8-K dated July 30, 2001, and filed on August 7, 2001. | |
| 10.5 | Form of 13.50% Senior Subordinated Note Due 2006, as incorporated by reference from Exhibit 99.2 to the Registrant's Current Report on Form 8-K dated July 30, 2001, and filed on August 7, 2001. | |

| <u>Exhibit No.</u> | <u>Description</u> |
|---------------------------|--|
| 10.6 | Option Agreement, dated July 31, 2001, among the Registrant, Associated Mezzanine Investors-PESI (I), L.P. and Bridge East Capital L.P., as incorporated by reference from Exhibit 99.8 to the Registrant's Current Report on Form 8-K dated July 30, 2001, and filed on August 7, 2001. |
| 10.7* | Financial Advisory and Consulting Agreement, dated December 5, 2000, between the Registrant and National Securities Corporation. |
| 10.8 | Debt-For-Stock Exchange Agreement, dated effective July 9, 2001, between the Registrant and Capital Bank-Grawe Gruppe AG, as incorporated by reference from Exhibit 10.1 to the Registrant's |

Current Report on Form 8-K dated July 9, 2001, and filed on July 20, 2001.

- 10.9 Warrant, dated January 31, 2001, granted by the Registrant to BHC Interim Funding, L.P. for the right to purchase up to 817,142 shares of the Registrant's common stock at an exercise price of \$1.4578, as incorporated by reference from Exhibit 99.6 to the Registrant's Current Report on Form 8-K, dated January 31, 2001, and filed on February 26, 2001.
- 10.10 Common Stock Purchase Warrant, dated August 29, 2000, granted by the Registrant to Capital Bank-Grawe Gruppe AG (f/k/a RBB Bank Aktiengesellschaft) for the right to purchase up to 150,000 shares of the Registrant's common stock at an exercise price of \$1.50 per share, as incorporated by reference from Exhibit 4.3 to the Registrant's Current Report on Form 8-K, dated August 31, 2000, and filed on September 5, 2000.
- 10.11 Warrant, dated November 29, 2000, granted by the Registrant to Capital Bank (f/k/a RBB Bank Aktiengesellschaft) for the right to purchase up to 300,000 shares of the Registrant's common stock at an exercise price of \$1.8750, as incorporated by reference from Exhibit 99.5 to the Registrant's Current Report on Form 8-K, dated December 22, 2000, and filed on January 17, 2001. Substantially similar warrants for the purchase of an aggregate 570,000 shares were issued to Capital Bank as follows: (a) a warrant, dated October 30, 2000, for the right to purchase up to 150,000 shares at an exercise price of \$1.625; (b) a warrant, dated December 29, 2000, for the right to purchase up to 105,000 shares at an exercise price of \$1.4219, (c) a warrant, dated January 31, 2001, for the right to purchase up to 105,000 shares at an exercise price of \$1.9688, (d) a warrant, dated February 28, 2001, for the right to purchase up to 105,000 shares at an exercise price of \$1.9375, and (e) a warrant, dated March 30, 2001, for the right to purchase up to 105,000 shares at an exercise price of \$1.8125. Copies of these Warrants will be provided to the Commission upon request.
- 10.12* Common Stock Purchase Warrant, dated July 9, 2001, granted by the Registrant to Capital Bank-Grawe Gruppe AG for the right to purchase up to 1,839,405 shares of the Registrant's common stock at an exercise price of \$1.75 per share.
- 10.13* Common Stock Purchase Warrant, dated July 9, 2001, granted by the Registrant to Herbert Strauss for the right to purchase up to 625,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share.

| <u>Exhibit No.</u> | <u>Description</u> | <u>Sequential Page No.</u> |
|---------------------------|--|-----------------------------------|
| 10.14* | Common Stock Purchase Warrant, dated June 1, 2001, granted by the Registrant to National Securities Corporation for the right to purchase of up to 250,000 shares of the Registrant's common stock at an exercise price of \$1.50 per share. A substantially similar warrant, dated June 1, 2001, was granted by the Registrant to National Securities Corporation for the purchase of up to 360,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share. A copy of this Warrant will be provided to the Commission upon request. | |
| 10.15* | Common Stock Purchase Warrant, dated April 1, 1999, granted by | |

the Registrant to Strategic Growth International, Inc. for the right to purchase up to 240,000 shares of the Registrant's common stock at an exercise price of \$1.20 per share. Substantially similar warrants for the purchase of an aggregate 566,908 shares were issued to Strategic Growth International, Inc. as follows: (a) a warrant, dated April 1, 1999 for the right to purchase up to 240,000 shares at an exercise price of \$1.40, (b) a warrant, dated December 22, 2000, for the right to purchase up to 213,888 shares at an exercise price of \$1.44, (c) a warrant, dated February 1, 2001, for the right to purchase up to 34,028 shares at an exercise price of \$1.44, (d) a warrant, dated March 9, 2001, for the right to purchase up to 24,305 shares at an exercise price of \$1.44, and (e) a warrant, dated July 31, 2001, for the right to purchase up to 54,687 shares at an exercise price of \$1.44. Copies will be provided to the Commission upon request.

- 10.16* Warrant Agreement, dated January 25, 2000, granted by the Registrant to Ryan, Beck & Co., L.L.C. ("Ryan Beck") for the purchase of up to 33,750 shares of the Registrant's common stock at an exercise price of \$1.44 per share. Substantially similar Warrant Agreements, dated January 25, 2000, for the right to purchase up to an aggregate 116,250 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Randy Rock (20,625 shares), Michael Kollender (20,625 shares), Robert Goodwin (20,000 shares), Robert C. Mayer, Jr. (23,000 shares), Paul Cronson (23,000 shares), Meera Murdeshwar (6,000 shares), Kelsey Ann Goodwin Trust (1,500 shares), and Christopher Todd Goodwin Trust (1,500 shares). Copies will be provided to the Commission upon request.
- 10.17 Warrant, dated December 22, 2000, issued by the Registrant to Ryan, Beck & Co., LLC for the purchase of 213,889 shares of the Registrant's common stock, as incorporated by reference from Exhibit 99.6 to the Registrant's Current Report on Form 8-K dated January 31, 2001, and filed on February 26, 2001. Substantially similar Warrants, dated December 22, 2000, for the right to purchase up to an aggregate 855,555 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (26,737 shares), Michael Kollender (147,048 shares), Randy Rock (147,048 shares), Robert Goodwin (166,907 shares), Robert C. Mayer, Jr. (169,908 shares), Paul Cronson (169,907 shares), Meera Murdeshwar (25,000 shares), Kelsey Ann Goodwin Trust (1,500 shares), and Christopher Todd Goodwin Trust (1,500 shares). Copies will be provided to the Commission upon request.

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- 10.18* Warrant Agreement, dated January 31, 2001, granted by the Registrant to Ryan, Beck & Co., LLC for the right to purchase up to 34,028 shares of the Registrant's common stock at an exercise price of \$1.44 per share. Substantially similar Warrants, dated January 31, 2001, for the right to purchase up to an aggregate 136,110 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (4,253 shares), Michael Kollender (23,394 shares), Randy Rock (23,394 shares), Robert Goodwin (26,690 shares), Robert C. Mayer, Jr. (26,689 shares), Paul Cronson (26,690 shares), and Meera Murdeshwar (5,000 shares). Copies will be provided to the Commission upon request.
- 10.19* Warrant Agreement, dated March 9, 2001, granted by the Registrant to Ryan, Beck & Co., LLC for the right to purchase up to 24,306 shares of the Registrant's common stock at an exercise

price of \$1.44 per share. Substantially similar Warrants, dated March 9, 2001, for the right to purchase up to an aggregate 97,222 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (3,038 shares), Michael Kollender (16,710 shares), Randy Rock (16,710 shares), Robert Goodwin (19,255 shares), Robert C. Mayer, Jr. (19,255 shares), Paul Cronson (19,254 shares), and Meera Murdeshwar (3,000 shares). Copies will be provided to the Commission upon request.

- 10.20* Warrant Agreement, dated July 31, 2001, granted by the Registrant to Ryan Beck & Co., LLC for the right to purchase up to 54,688 shares of the Registrant's common stock at an exercise price of \$1.44 per share. Substantially similar Warrants, dated July 31, 2001, for the right to purchase up to an aggregate 218,752 shares of the Registrant's common stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (6,836 shares), Paul Cronson (43,295), Michael Kollender (37,598 shares), Randy Rock (37,598 shares), Robert Goodwin (43,294 shares), Robert C. Mayer, Jr. (43,294 shares), and Meera Murdeshwar (6,837 shares). Copies will be provided to the Commission upon request.
- 10.21* Warrant to Purchase Common Stock, dated July 30, 2001, granted by the Registrant to David Avital for the purchase of up to 143,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share. Substantially similar warrants for the purchase of an aggregate 4,254,566 were issued to Capital Bank (842,995 shares), CICI 1999 Qualified Annuity Trust (85,715 shares), Gerald D. Cramer (85,715 shares), CRM 1999 Enterprise Fund 3 (200,000 shares), Craig S. Eckenthal (57,143 shares), Danny Ellis Living Trust (250,000 shares), Europa International, Inc. (571,428 shares), Harvey Gelfenbein (28,571 shares), A. C. Israel Enterprises (285,715 shares), Kuekenhof Partners, L.P. (40,000), Kuekenhof Equity Fund, L.P. (60,000 shares), Jack Lahav (571,429 shares), Joseph LaMotta (28,571 shares), Jay B. Langner (28,571 shares), The F. M. Grandchildren Trust (42,857 shares), Mathers Associates (228,571 shares), Peter Melhado (115,000 shares), Pamela Equities Corp. (42,857 shares), Josef Paradis (143,000 shares), Readington Associates (57,143 shares), Dr. Ralph Richart (225,000 shares), Edward J. Rosenthal Profit Sharing Plan (28,571 shares), Yariv Sapir IRA (85,714 shares), and Bruce Wrobel (150,000 shares), respectively. Copies will be provided to the Commission upon request.

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- 10.22* Common Stock Purchase Warrant, dated July 30, 2001, granted by the Registrant to Ryan, Beck & Co. for the purchase of 20,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share. Substantially similar warrants, dated July 30, 2001, for the purchase of an aggregate 74,000 shares of the Registrant's common stock at an exercise price of \$1.75 per share were issued to Ryan, Beck & Co. (14,000 shares), Larkspur Capital Corporation (34,000 shares) and National Securities Corporation (40,000 shares). Copies will be provided to the Commission upon request.
- 10.23* Common Stock Purchase Warrant, dated July 31, 2001, granted by the Registrant to Associated Mezzanine Investors-PESI (I), L.P. for the purchase of up to 712,073 shares of the Registrant's common stock at an exercise price of \$1.50 per share. A substantially similar warrant was issued to Bridge East Capital L.P. for the right to purchase of up to 569,658 shares of the Registrant's common

stock, and a copy will be provided to the Commission upon request.

| | | |
|--------|--|----|
| 10.24* | Subcontract Change Notice between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. BA-99446/7 and 8F, dated July 2, 2002. Exhibits to this Contract as listed therein are omitted, but a copy of each will be provided to the Commission upon request. | |
| 23.1* | Consent of BDO Seidman, LLP. | 61 |
| 23.2* | Consent of Gallogly Fernandez & Riley, LLP. | 62 |
| 23.3* | Consent of Conner & Winters, as contained in Exhibit 5.1 hereto and incorporated herein by reference. | |
| 24.1* | Powers of Attorney for Messrs. Zwecker, Colin, and Sullivan, as contained in the Power of Attorney of the signature page included in this Registration Statement. | |
| 24.2* | Power of Attorney for Messrs. Jack Lahav and Alfred C. Warrington, IV. | |

* Previously filed.