

REGISTRATION NO. 333-\_\_\_\_\_

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM S-3

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, P.C.  
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.

<TABLE>  
<CAPTION>

CALCULATION OF REGISTRATION FEE

PROPOSED

PROPOSED

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	NUMBER OF SHARES TO BE REGISTERED	MAXIMUM OFFERING PRICE PER SHARE	MAXIMUM AGGREGATE OFFERING PRICE	AMOUNT OF REGISTRATION FEE
<S> Common Stock	<C> 6,391,751(1)	<C> \$2.08(2)	<C> \$13,294,842(2)	<C> \$1,685

</TABLE>

- (1) Includes (a) 4,616,113 shares which have been issued by the Registrant pursuant to a private placement and (b) 1,775,638 shares issuable by the Registrant upon the exercise of various warrants issued by the Registrant in the private placement having an exercise price of \$2.92 per share. Pursuant to Rule 416 under the Securities Act of 1933, as amended, the number of shares of common stock registered hereby shall include an indeterminate number of shares of common stock that may be issued in connection with a stock split, stock dividend, recapitalization or similar event.
- (2) Estimated solely for the purposes of calculating the registration fee in accordance with Rule 457(c) on the basis of the average of the high and low price as quoted on the NASDAQ Small Cap Market on April 26, 2004.

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.

SUBJECT TO COMPLETION: DATED APRIL 30, 2004

PROSPECTUS

[PERMAFIX ENVIRONMENTAL SERVICES LOGO]

6,391,751 SHARES

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

COMMON STOCK

This prospectus relates to the offer or sale of up to 6,391,751 shares of Perma-Fix Environmental Services, Inc. common stock from time to time by the Selling Stockholders listed in this prospectus. We will not receive any proceeds from the sale of such 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 April 26, 2004, the closing price of our common stock as reported on the Nasdaq SmallCap Market was \$2.06.

We have agreed to pay all the costs and fees relating to the registration of the shares covered by this prospectus. However, we will not pay any discounts, concessions, or commissions payable to underwriters, dealers, or agents incident to the offering of such 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 FOR  
CERTAIN RISKS YOU SHOULD CONSIDER.

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 \_\_\_\_\_, 2004.

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Unless the context otherwise requires, references in this prospectus to "Perma-Fix," "the company," "we," "our," and "us" refer to Perma-Fix Environmental Services, Inc. and its consolidated subsidiaries.

## 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:

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

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

- o Perma-Fix Treatment Services, Inc. located in Tulsa, Oklahoma;
- o Perma-Fix of Dayton, Inc. located in Dayton, Ohio;
- o Perma-Fix of Ft. Lauderdale, Inc. located in Davie, Florida;
- o Perma-Fix of Orlando, Inc. located in Orlando, Florida;
- o Perma-Fix of South Georgia, Inc. located in Valdosta, Georgia;
- o Perma-Fix of Michigan, Inc. located in Detroit, Michigan;
- o Perma-Fix of Maryland, Inc. located in Baltimore, Maryland; and
- o Perma-Fix of Pittsburgh, Inc. located in Pittsburgh, Pennsylvania.

### NUCLEAR WASTE MANAGEMENT SERVICES

Our Nuclear Waste Management Services include:

- o treatment, storage, processing and disposal of mixed waste (waste containing both low-level radioactive and hazardous waste); and
- o 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:

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

### CONSULTING ENGINEERING SERVICES

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

- o environmental management programs
- o regulatory permitting

- o compliance and auditing
- o field testing and characterization

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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 website is located at www.perma-fix.com. The information contained in our website is not incorporated by reference in this prospectus.

#### RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risk factors set forth in this prospectus and any accompanying prospectus supplement delivered with this prospectus, as well as other information we include or incorporate by reference in this prospectus and any accompanying prospectus supplement and the additional information in the other reports we file with the Securities and Exchange Commission ("SEC").

#### OUR SUBSTANTIAL AMOUNT OF DEBT COULD ADVERSELY AFFECT OUR OPERATIONS.

We have a substantial amount of debt. At March 31, 2004, our aggregate consolidated debt was approximately \$20.9 million. If our floating rates of interest experienced an upward increase of 1%, our debt service would increase by approximately \$209,000 annually. Our secured revolving credit facility (the "Credit Facility") provides for an aggregate commitment of \$25 million, consisting of an \$18 million revolving line of credit and a term loan of \$7 million. The maximum we can borrow under the revolving part of the Credit Facility is based on a percentage of the amount of our eligible receivables outstanding at any one time. The Credit Facility is due December, 2005. Although we used a substantial portion of the net proceeds received from a recently completed private placement (see "Recent Developments - Private Placement") to reduce our indebtedness under the revolving part of the Credit Facility, we intend to continue to borrow under that facility from time to time, and this reduction did not reduce the amount we can borrow under the Credit Facility. As of March 31, 2004, we had borrowings under our revolving part of our Credit Facility of \$1.7 million and borrowing availability of up to an additional \$11.4 million based on our then outstanding eligible receivables.

Our high leverage could have material adverse consequences on our ability to operate our business, including the following:

- o it may make it difficult for us to satisfy our obligations and contractual and commercial commitments
- o our ability to obtain additional financing in the future for refinancing indebtedness, acquisitions, working capital, capital expenditures or other purposes may be impaired;
- o 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;
- o we may be more highly leveraged than certain of our competitors, which may place us at a competitive disadvantage;
- o we may be more vulnerable to a downturn in general economic conditions;
- o certain of the borrowings under our debt agreements have floating rates of interest, which cause us to be vulnerable to increases in interest rates; and

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- o we must use a substantial portion of our cash flow from operations to pay interest on our indebtedness, which reduces the funds available to us for other purposes.

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. Many of these factors are beyond our control.

THE DOCUMENTS GOVERNING OUR INDEBTEDNESS RESTRICT OUR ABILITY TO ENGAGE IN CERTAIN BUSINESS TRANSACTIONS.

The terms of the Credit Facility restrict our ability and the ability of our subsidiaries, without the lender's approval, to, among other things:

- o incur or guarantee additional indebtedness;
- o pay cash dividends on, redeem or repurchase capital stock;
- o make certain investments;
- o incur or permit to exist liens;
- o make material changes in the nature or conduct of our business;
- o merge or consolidate with or acquire substantially all of the stock or assets of other companies; and
- o transfer or sell assets.

The Credit Facility also requires that we meet specified financial ratios and financial condition tests. Our ability to make additional borrowings under the Credit Facility depends upon satisfaction of these covenants. Our ability to meet these covenants and requirements may be affected by events beyond our control.

Our failure to comply with obligations under the Credit Facility could result in an event of default under the facility. A default, if not cured or waived, could permit acceleration of our indebtedness. We cannot be certain that we will be able to remedy any default. If our indebtedness is accelerated, we cannot be certain that we will have funds available to pay the accelerated indebtedness or that we will have the ability to refinance the accelerated indebtedness on terms favorable to us or at all.

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") 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 12,980,493 shares and 3,139,950 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 \$3.25 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 material adverse impact on our earnings per share and could, among other things, depress the price of our common stock. This result could detrimentally affect our ability to raise additional equity capital.

The conversion of our outstanding Series 17 Preferred and the exercise of all of our outstanding warrants and options could result in us having outstanding a total of 59,214,835 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 and future common stockholders.

Many of the beneficial holders of our convertible preferred stock and the holders of many of our outstanding warrants and options may immediately sell the full amount of common stock received upon conversion of the convertible preferred stock and exercise of the warrants and options, as applicable, as those shares of common stock are subject to effective registration statements that are currently in effect. As these shares are sold, the price of the common stock may decrease.

CAPITAL BANK'S INVESTORS BENEFICIALLY OWN A SIGNIFICANT NUMBER OF OUR OUTSTANDING SHARES, HAVE THE RIGHT TO ACQUIRE ADDITIONAL SHARES, AND HAVE THE ABILITY TO RESELL SUCH SHARES, WHICH MAY ADVERSELY AFFECT OUR ABILITY TO RAISE ADDITIONAL FUNDS AND TO UNDERTAKE CERTAIN TRANSACTIONS.

As of April 22, 2004, Capital Bank-Grawe Gruppe AG ("Capital Bank"), owned of record, as agent for certain of its investors, 7,246,045 shares of our common stock or approximately 17.5% of the outstanding shares of common stock, and had the right to acquire an additional 4,334,805 shares of common stock pursuant to the convertible preferred stock and warrants held in Capital Bank's name, as agent for certain investors. If Capital Bank acquires all of the shares issuable pursuant to such preferred stock and warrants, Capital Bank would own of record 11,580,850 shares of common stock, representing 25.3% of our then issued and outstanding common stock, assuming we issue no other shares of common stock and Capital Bank does not dispose of any shares. We receive proceeds from the exercise for cash of the warrants held by Capital Bank's investors, but we will not receive any proceeds from the resale of these shares by Capital Bank's investors.

A substantial amount of the shares beneficially owned by Capital Bank's investors are registered for resale. To the extent that Capital Bank's investors sell these shares at times when we are attempting to raise additional capital, our ability to raise these additional funds may be adversely impacted.

We are not aware of any agreement or understanding among Capital Bank's investors to act as a group (as defined in Rule 13d-5(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")). However, if Capital Bank's investors agree to act as a group or otherwise to act in concert for the purpose of voting on matters subject to stockholder vote, our management could be greatly impacted. For instance, this investor group could instruct Capital Bank to vote for or against the approval of a merger or other proposal requiring stockholder approval. 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.

THE ISSUANCE OF ADDITIONAL SHARES OF OUR COMMON STOCK MAY ALSO RESULT IN A CHANGE IN CONTROL.

The issuance of additional shares of our common stock upon conversion of the Series 17 Preferred and exercise of our currently outstanding warrants could result in a substantial number of shares being held by one or more groups acting in concert. In that event, such group or groups may have the ability to cause a change in control under our Credit Agreement. Our 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. Kelecy, our Chief Financial Officer, ceases to serve as a senior executive officer in substantially the same capacity as served on the date of the Credit Facility or (b) 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. As of the date of this prospectus, we owe under the subordinated notes the principal sum of \$5.6 million, which principal sum is due in full on July 31, 2006. 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 anyone or a group were to successfully attempt to cause any of these changes in our management or Board, we could be in default under our loan agreements.

IF WE ARE UNABLE TO MAINTAIN OUR DOE SUBCONTRACTS, OR THE SUBCONTRACTS ARE DELAYED, WE COULD LOSE A PRIMARY REVENUE SOURCE.

Currently, a material amount of our nuclear segment's revenues are generated pursuant to subcontracts under contracts with the U. S. Department of Energy (the "DOE"). Each subcontract provides that the contractor, on its or the DOE's behalf, may terminate or delay each contract under which the subcontracts were issued at any time by notifying us. If we fail to maintain, renew, or replace these contracts, our revenues could be materially reduced, and your investment could be materially and adversely affected. We have significant revenues under subcontracts granted to our nuclear segment by Bechtel Jacobs Company, LLC, a contractor to the DOE, which were approximately \$13,139,000, and \$9,664,000, representing 15.5% and 11.6%, respectively, of our consolidated revenues for 2003 and 2002.

THE INABILITY TO COMPLETE EXISTING GOVERNMENT CONTRACTS OR WIN NEW GOVERNMENT CONTRACTS OVER AN EXTENDED PERIOD COULD HARM OUR OPERATIONS AND ADVERSELY AFFECT OUR FUTURE REVENUES.

Most of our government contracts or our subcontracts granted under government contracts are awarded through a regulated competitive bidding process. Some government contracts are awarded to multiple competitors, which increases overall competition and pricing pressure and may require us to make sustained post-award efforts to realize revenues under these government contracts. In addition, government clients can generally terminate or modify their contracts at their convenience. The inability to complete existing government contracts or win new government contracts over an extended period could harm our operations and adversely affect our future revenues.

IF WE CANNOT MAINTAIN OUR GOVERNMENTAL PERMITS OR CANNOT OBTAIN REQUIRED PERMITS, WE MAY NOT BE ABLE TO CONTINUE OR EXPAND OUR OPERATIONS.

We are a waste management company. 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. See "Risk Factors - Our Industrial waste management services and nuclear waste management services subject us to potential environmental liability."

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 MAINTAIN PROFITABILITY, 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. If we are unable to continue to be profitable on a long-term basis, our ability to remain in compliance with various federal, state, and local environmental regulations would be impaired. 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.

OUR INDUSTRIAL WASTE MANAGEMENT SERVICES AND NUCLEAR WASTE MANAGEMENT SERVICES SEGMENTS 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:

- o 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;

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- o claims of employees, customers, or third parties for personal injury or property damage occurring in the course of our operations; and
- o claims alleging negligence or professional errors or omissions in the planning or performance of our services.

Our operations are subject to numerous environmental laws and regulations. We have in the past, and could in the future, be subject to substantial fines, penalties, and sanctions for violations of environmental laws and substantial expenditures as a responsible party for the cost of remediating 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.

During the first quarter of 2004, we discovered that one of our subsidiaries has been storing a substantial amount of hazardous and non-hazardous waste in violation of certain environmental laws. We voluntarily reported this matter to the appropriate state governmental authorities and have removed this waste to permitted treatment, storage, and/or disposal facilities ("TSD facilities"). As of the date of this prospectus, the state has not advised us as to what action or actions, if any, it intends to take against our subsidiary as a result of this matter. The state could assert monetary fines and penalties or take other action against our subsidiary as a result of this matter (including, but not limited to, loss of permits), which may have a material adverse effect upon us.

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.

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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 that 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 ARE SUBJECT TO SEASONAL FACTORS, WHICH CAUSE OUR REVENUES TO FLUCTUATE.

We have historically experienced reduced revenues and losses 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 these periods. This trend has continued through the first quarter of 2004. During the first quarter of 2004, we had unaudited revenues of \$17.5 million and net loss applicable to common stockholders of \$2.0 million, as compared to unaudited revenues of \$19.5 million and net loss applicable to common stockholders of \$431,000 for the first quarter of 2003. See below "Risk Factors - - Our Industrial waste management services segment has sustained substantial losses, which, if continuing, may have a material adverse effect on your investment in our common stock." During our second and third fiscal quarters there has historically been an increase in revenues and operating profits. If we do not continue to have increased revenues and profitability during the second and third fiscal quarters, this will have a material adverse effect on our results of operation and liquidity.

OUR INDUSTRIAL WASTE MANAGEMENT SERVICES SEGMENT HAS SUSTAINED SUBSTANTIAL LOSSES WHICH, IF CONTINUING, COULD HAVE A MATERIAL ADVERSE EFFECT ON YOUR INVESTMENT IN OUR COMMON STOCK.

The revenues from our industrial waste management services segment constituted approximately 52.1% and 45.1% of our consolidated revenues in 2003 and 2002, respectively, and 41.6% of our consolidated revenues during the first quarter of 2004. Our industrial waste management services segment sustained losses in 2003 and 2002 of approximately \$2.0 million and \$3.9 million, respectively. This segment has also sustained an unaudited loss of \$2.5 million for the first quarter of 2004, as compared to a loss of \$828,000 during the first quarter of 2003. This segment is generally adversely affected by economic

downturns, due, in part, to reductions in industrial production that result in reduced levels of hazardous and non-hazardous waste. We believe that the revenues and profits in this segment were negatively impacted by the downturn in our economy that began in 2001 and continued during part of the first quarter of 2004.

During the fourth quarter of 2003, we completed a restructuring of our industrial waste management services segment, changing this segment's management and increasing its focus on higher-margin generator direct revenues and eliminating lower-margin outside broker revenues. During March 2004, we completed certain acquisitions in the industrial waste management services segment. See "Recent Developments - Acquisitions."

If our industrial waste management services segment fails to become profitable on an annualized basis in the foreseeable future, this could have a material adverse effect on our results of operations, liquidity and our potential growth.

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.

LOSS OF CERTAIN KEY PERSONNEL COULD HAVE A MATERIAL ADVERSE EFFECT ON US.

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.

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.

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OUR OPERATIONS WILL SUFFER IF WE ARE UNABLE TO MANAGE OUR GROWTH.

We are currently experiencing a period of growth through internal expansion and strategic acquisitions, including two acquisitions in March 2004. See "Recent Developments -- Acquisitions." This growth has placed, and could continue to place, a significant strain on our management, personnel, and other resources. Our growth requires 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.

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 (including cash dividends on our Series 17 Preferred) without the lender's prior written consent.

EXPIRATION OF THE PRICE-ANDERSON ACT'S INDEMNIFICATION AUTHORITY COULD HAVE ADVERSE CONSEQUENCES ON OUR POWER, DEFENSE, AND ENERGY & ENVIRONMENT BUSINESS UNITS.

We provide services to the nuclear industry. The Price-Anderson Act promotes the nuclear industry by offering broad indemnification to commercial nuclear power plant operators and DOE contractors for liabilities arising out of nuclear incidents at power plants licensed by the NRC and at DOE nuclear facilities. That indemnification protects not only the NRC license or DOE prime contractor, but also others like us who may be doing work under contract or subcontract for a licensed power plant or under a DOE prime contract. While the Price-Anderson Act's indemnification provisions are broad, it has not been determined whether they apply to all liabilities that might be incurred by a radioactive materials cleanup contractor. Moreover, the Price-Anderson Act indemnification authority expired on December 31, 2003, for NRC licensees, and it will expire on December 31, 2004 for DOE contractors. There are legislative proposals to enact a long-term extension of Price Anderson indemnification authority, as has been done several times in the past. Those proposals are part of the omnibus energy legislation that is pending in Congress. However, that bill has been held up during the last several legislative sessions for reasons unrelated to Price Anderson. DOE contractors who have coverage under current contracts would be unaffected by the expiration of authority at the end of the year. Their coverage continues until the contract under which the indemnification was granted terminates. However, our federal business could be adversely affected if DOE prime contractors are reluctant to enter into new contracts involving nuclear hazards in the absence of an extension of Price Anderson indemnification authority for them after December 31, 2004. DOE has alternative, although more limited, indemnification authority under Public Law 85-804, and when Price Anderson has temporarily lapsed in the past, DOE prime contractors were generally willing to accept that coverage on an interim basis. Private insurers, however, have generally not been willing to cover nuclear hazards associated with DOE work.

WE WILL NOT REALIZE A BENEFIT FROM OUR LOSS CARRYFORWARDS IF WE ARE UNABLE TO GENERATE INCOME.

We have approximately \$23.1 million in net operating loss carryforwards which will expire from 2007 to 2023 if not used against future federal income tax liabilities. Our net loss carryforwards are subject to various limitations and have not been audited 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.

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DELAWARE LAW, CERTAIN OF OUR CHARTER PROVISIONS, THE PRESENCE OF ONE SUBSTANTIAL STOCKHOLDER OF RECORD, 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 combination 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.

Our 1991 Performance Equity Plan, 1992 Outside Directors Stock Option Plan, 1993 Nonqualified Stock Option Plan, and 2003 Outside Directors Stock 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.

Capital Bank, as agent for its investors, is the record owner of shares of common stock, the issued and outstanding shares of Series 17 Preferred, and outstanding warrants for the purchase of shares of common stock. The existence of one substantial stockholder of record could discourage other persons from

attempting to acquire us.

Under our Restated Certificate of Incorporation, as amended (the "Certificate"), as of April 22, 2004, 33,572,275 shares of common stock (including 988,000 treasury shares) are available for future issuance, of which 17,787,110 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:

- o raising capital funds through private or public offerings;
- o acquiring other companies;
- o declaring stock splits or stock dividends; and
- o 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.

TERRORIST ATTACKS, SUCH AS THE ATTACKS THAT OCCURRED IN NEW YORK AND WASHINGTON, D.C. ON SEPTEMBER 11, 2001, AND OTHER ACTS OF VIOLENCE OR WAR, INCLUDING THE MILITARY CONFLICT IN IRAQ, HAVE AND COULD NEGATIVELY IMPACT US AND OTHER U.S. AND FOREIGN COMPANIES, THE FINANCIAL MARKETS, THE INDUSTRIES WHERE WE OPERATE, OUR OPERATIONS AND PROFITABILITY.

The terrorist attacks that occurred on September 11, 2001 negatively effected our operations and your investment, as the DOE and other governmental agencies that generate radioactive waste suspended shipments of these waste streams to various off-site TSD radioactive waste facilities for a substantial period of time after September 11, 2001 and did not begin to ship waste to these off-site TSD facilities such as ours until the third quarter of 2003. There can be no assurance that there will not be further terrorist attacks worldwide. These attacks have contributed to economic instability in the United States and elsewhere, and future acts of terrorism, violence or war could further affect the industries where we operate, our business, results of operations and financial condition. The consequences of any terrorist attacks or hostilities are unpredictable, and we may not be able to foresee events that could have an adverse effect on our operations or your investment.

#### 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:

- o the adequacy of our insurance;
- o our ability to continue to borrow under the Credit Facility;
- o our ability to manage our growth;
- o potential for litigation against us;
- o our ability to be profitable on a long term basis;
- o our ability to protect our proprietary technologies;
- o our ability to utilize net operating loss carryforwards against future federal income tax liabilities;
- o our ability to comply with our general working capital requirements;
- o our ability to retain certain permits or licenses;
- o 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:

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

The following are all material changes to our affairs which have occurred since the end of our latest fiscal year for which audited financial statements were included in our Form 10-K for year ended December 31, 2003, and which have not been described in a report on Form 8-K filed under the Exchange Act:

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#### PRIVATE PLACEMENT

Pursuant to a Securities Purchase Agreement, dated March 22, 2004, we completed a private placement of our common stock and warrants for the purchase of our common stock, and received gross proceeds of approximately \$10.4 million in connection with this offering. We sold to 15 accredited investors 4,616,113 shares of common stock at \$2.25 per share and warrants for the purchase of up to an additional 1,615,638 shares of common stock. The warrants have an exercise price of \$2.92 per share and a three year term. The warrants may be exercised pursuant to a cashless exercise option if, at any time after one year from the date of issuance of the warrants, there is no effective registration statement registering the resale of the shares issuable upon exercise of the warrants and such shares are not eligible to be sold pursuant to Rule 144(k) of the Securities Act.

We realized net proceeds from the private placement of approximately \$9.9 million, after paying fees of \$515,000 to the placement agent and certain expenses of the placement agent. The net proceeds were used as follows:

- o \$2.9 million in connection with a certain acquisition discussed below; and
- o the remaining \$7.0 million to reduce debt, make certain capital expenditures and for working capital purposes.

As compensation for consulting services in connection with the private placement, we issued warrants ("Consultant Warrants") to outside consultants to purchase an aggregate of 160,000 shares of our common stock, subject to adjustment. The Consultant Warrants have an exercise price of \$2.92 per share and a three year term.

The exercise price of, and number of shares of common stock issuable upon exercise of, the warrants and Consulting Warrants are each subject to adjustment upon certain events. These events include, among others, stock splits and reclassifications of our common stock, and certain reorganizations, mergers and consolidations.

The issuance of shares, warrants and Consultant Warrants described above was made pursuant to a private placement under Section 4(2) and/or Regulation D of the Securities Act. The shares issued in the private placement and issuable upon exercise of the warrants issued in the private placement (excluding the shares issuable under the Consultant Warrants) are subject to demand and piggyback registration rights. All of the shares listed above are registered for resale in the registration statement, of which this prospectus is a part.

#### ACQUISITIONS

In March 2004, we completed the acquisition of certain assets of two companies owned by US Liquids, Inc. We acquired assets of USL Environmental Services, Inc., d/b/a A&A Environmental ("A&A"), primarily located in Baltimore, Maryland. We also acquired certain assets of US Liquids of Pennsylvania d/b/a EMAX ("EMAX"), located in Pittsburgh, Pennsylvania. We paid \$2.9 million in cash for these assets. A&A and EMAX had unaudited combined revenues in 2003 of approximately \$15 million and had an unaudited combined net loss of approximately \$299,000.

A&A is a full line provider of environmental, marine and industrial maintenance services. A&A has been in business for over 45 years and continues to adapt to meet the specialized needs of today's environmental and plant managers. A&A offers expert environmental services such as 24 hour emergency response, vacuum services, hazardous and non-hazardous waste disposal, marine environmental and other remediation services. EMAX, through its field and industrial services group, provides a variety of environmental services such as transportation of drums and bulk loads, tank cleaning, industrial maintenance, dewatering, drum management and chemical packaging. EMAX also has a wastewater treatment group, which provides for the treatment of non-hazardous wastewaters such as leachates, oily waters, industrial process waters and off-spec products. We currently intend to continue operating the assets acquired from A&A and EMAX substantially as they were operated prior to acquisition.

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#### USE OF PROCEEDS

We will not receive any proceeds from the sale of shares by the Selling Stockholders. We will receive approximately \$5,184,863 if the Selling Stockholders exercise, for cash, all of the warrants and Consultant Warrants covering the shares included in this prospectus. We currently intend to use any proceeds received by us from the exercise of the warrants and Consultant Warrants to reduce debt and/or general working capital.

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.

#### SELLING STOCKHOLDERS

The shares of common stock being offered by the Selling Stockholders consist of (a) 4,616,113 shares issued in the private placement effected in March 2004, (b) 1,615,638 shares issuable upon the exercise of the warrants issued in the private placement, and (c) 160,000 shares issuable upon the exercise of the Consultant Warrants issued in connection with the private placement. These shares of common stock are described under "RECENT DEVELOPMENTS - Private Placement." We are registering the shares of common stock in order to permit the Selling Stockholders to offer the shares for resale from time to time. Except for the ownership of the shares of common stock and the warrants, the Selling Stockholders have not had any material relationship with us within the past three years other than (a) R. Keith Fetter, Joe Dilustro, and Chet Dubov, who provided consulting services in connection with the private placement, and (b) Andy Reckless, who, in his capacity as managing member of PEF Advisors, LLC, the investment advisor for Palisades Master Fund, L.P. ("Palisades"), has voting and dispositive power over the shares owned of record by Palisades, is chairman of HPC Capital Management Corporation, which acted as our placement agent in the Private Placement.

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 April 12, 2004, (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 that may be acquired upon the exercise of outstanding warrants, whether such are currently exercisable. The Selling Stockholders may sell all, some or none of their shares in this offering. See "PLAN OF DISTRIBUTION."

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 percentages indicated are based on outstanding common stock of 41,427,725 shares as of April 12, 2004.

This prospectus covers the resale of the shares of common stock issuable upon exercise of the warrants issued in the private placement and the shares of common stock issuable upon exercise of the Consultant Warrants, determined as if the warrants and Consultant Warrants were exercised in full. Because the exercise price of the warrants and Consultant Warrants may be adjusted, the number of shares that will actually be issued may be more or less than the number of shares being offered by this prospectus.

Under the terms of the warrants, a selling stockholder may not exercise the warrants, to the extent such exercise would cause such selling stockholder, together with its affiliates, to beneficially own a number of shares of common stock which would exceed 4.99% of our then outstanding shares of common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of the warrants which have not been exercised. The table below does not reflect this limitation.

None of the Selling Stockholders are broker-dealers or affiliates of broker-dealers. Based on the information provided to us, each of the Selling Stockholders purchased the shares and the warrants, and upon the exercise of the warrants, will purchase the shares underlying the warrants in the ordinary course of business and did not at the time of their purchase have an arrangement to effect any distribution of the shares, warrants and shares underlying the warrants to or through any person or entity

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<TABLE>  
<CAPTION>

SELLING STOCKHOLDER	SHARES OWNED BEFORE OFFERING		SHARES BEING OFFERED	SHARES OWNED AFTER OFFERING	
	NUMBER	PERCENT	NUMBER	NUMBER	PERCENT
<S>	<C>	<C>	<C>	<C>	<C>
Alexandra Global Master Fund Ltd	1,012,500 (1)	2.4%	1,012,500	--	--
Alpha Capital AG	210,000 (2)	*	210,000	--	--
Baystar Capital II, L.P.	243,000 (3)	*	243,000	--	--
Bristol Investment Fund, Ltd.	240,000 (4)	*	240,000	--	--
Crescent International Ltd	405,000 (5)	*	405,000	--	--
Crestview Capital Master LLC	900,002 (6)	2.2%	900,002	--	--
Geduld Capital Partners LP	101,250 (7)	*	101,250	--	--
Gruber & McBaine International	150,000 (8)	*	150,000	--	--
Irwin Geduld Revocable Trust	67,500 (9)	*	67,500	--	--
J Patterson McBaine	59,999 (10)	*	59,999	--	--
Jon D. Gruber and Linda W. Gruber	150,000 (11)	*	150,000	--	--
Lagunitas Partners LP	360,000 (12)	*	360,000	--	--
Omicron Master Trust	300,000 (13)	*	300,000	--	--
Palisades Master Fund, L.P.	1,822,500 (14)	4.3%	1,822,500	--	--
Stonestreet LP	210,000 (15)	*	210,000	--	--
R. Keith Fetter	100,000 (16)	*	100,000	--	--
Joe Dilustro	30,260 (17)	*	30,000	260	*
Chet Dubov	30,000 (18)	*	30,000	--	--

\* Less than 1%

(1) Includes 750,000 shares, and 262,500 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement."

Alexandra Investment Management, LLC, a Delaware limited liability company ("Alexandra"), serves as investment adviser to Alexandra Global Master Fund Ltd., a British Virgin Islands company ("Master Fund"). By reason of such relationship, Alexandra may be deemed to share dispositive power over the shares of common stock stated as beneficially owned by Master Fund. Alexandra disclaims beneficial ownership of such shares of common stock. Messrs. Mikhail A. Filimonov ("Filimonov") and Dimitri Sogoloff ("Sogoloff") are managing members of Alexandra. By reason of such relationships, Filimonov and Sogoloff may be deemed to share dispositive power over the shares of common stock stated as beneficially owned by Master Fund. Filimonov and Sogoloff disclaim beneficial ownership of such shares of common stock.

- (2) Includes 155,556 shares, and 54,444 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement."
  - (3) Includes 180,000 shares, and 63,000 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." Steve Derby, Lawrence Goldfarb, and Steven M. Lamar, as managing members of Baystar Capital Management, LLC, the general partner of Baystar Capital II, L.P., share voting and investment power over these shares and disclaim beneficial ownership of these shares.
  - (4) Includes 177,778 shares, and 62,222 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." Paul Kessler, as director and managing member of the investment manager to Bristol Investment Fund, Ltd., has voting and investment power over these shares.
  - (5) Includes 300,000 shares, and 105,000 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." Mel Craw and Maxi Brezzi, in their capacity as managers of GreenLight (Switzerland) SA, the investment advisor to Crescent International Ltd., have voting control and investment discretion over the shares owned by Crescent International Ltd. Messrs. Craw and Brezzi disclaim beneficial ownership of such shares.
  - (6) Includes 666,668 shares, and 233,334 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement."
  - (7) Includes 75,000 shares, and 26,250 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." Steven Geduld, in his capacity as president of Geduld Capital Partners, LP, has voting and investment power over these shares.
  - (8) Includes 111,111 shares, and 38,889 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." Gruber & McBaine Capital Management is the investment advisor of Gruber & McBaine International and the general partner of Lagunitas Partners, L.P. and consequently has voting control and investment discretion over the securities held by Gruber & McBaine International and Lagunitas Partners, L.P. Gruber & McBaine Cap Management is managed by Jon D. Gruber and J. Patterson McBaine. Lagunitas Partners, L.P., Gruber & McBaine International, Jon D. Gruber and J. Patterson McBaine disclaim beneficial ownership of shares held by each other.
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- (9) Includes 50,000 shares, and 17,500 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." Irwin Geduld, as trustee, has voting and dispositive power over these shares.
  - (10) Includes 44,444 shares, and 15,555 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." See footnote (8) for a discussion of certain relationships.
  - (11) Includes 111,111 shares, and 38,889 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." See footnote (8) for a discussion of certain relationships.
  - (12) Includes 266,667 shares, and 93,333 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement."

See footnote (8) for a discussion of certain relationships.

- (13) Includes 222,222 shares, and 77,778 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement."
- (14) Includes 1,350,000 shares, and 472,500 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." Andy Reckless is the managing member of PEF Advisors, LLC ("PEF"), the investment manager to Palisades Masterfund, L.P. By reason of such relationship, Mr. Reckless may be deemed to have voting and investment power over these shares.
- (15) Includes 155,556 shares, and 54,444 shares issuable upon the exercise of warrants, issued in connection with the private placement discussed under "Recent Developments - Private Placement." Michael Finkelstein and Elizabeth Leonard, in their capacity as officers of Stonestreet LP share voting and investment power over these shares.
- (16) Includes 100,000 shares issuable upon the exercise of Consultant Warrants discussed under "Recent Developments - Private Placement."
- (17) Includes 30,000 shares issuable upon the exercise of Consultant Warrants discussed under "Recent Developments - Private Placement," and 260 shares beneficially owned by Mr. Dilustro's spouse. Mr. Dilustro may be considered to share beneficial ownership with his spouse over the shares beneficially owned by her.
- (18) Includes 30,000 shares issuable upon the exercise of the Consultant Warrants discussed under "Recent Developments - Private Placement."

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#### PLAN OF DISTRIBUTION

The Selling Stockholders of our common stock and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The Selling Stockholders may use any one or more of the following methods when selling shares:

- o ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- o block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- o purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- o an exchange distribution in accordance with the rules of the applicable exchange;
- o privately negotiated transactions;
- o settlement of short sales;
- o broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares at a stipulated price per share;
- o a combination of any such methods of sale;
- o through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise; or
- o any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. Each Selling Stockholder does not expect these commissions and discounts relating to its sales of shares to exceed what are customary in the types of transactions involved.

In connection with the sale of our common stock or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the

common stock in the course of hedging the positions they assume. The Selling Stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any agreement or understanding, directly or indirectly, with any person to distribute the Common Stock.

We are required to pay certain fees and expenses incurred by us incident to the registration of the shares. We agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because Selling Stockholders may be deemed to be "underwriters" within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. Each Selling Stockholder has advised us that they have not entered into any agreements, understandings or arrangements with any underwriter or broker-dealer regarding the sale of the resale shares. There is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the Selling Stockholders.

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We agreed to keep this prospectus effective until the earlier of (i) the date on which the shares may be resold by the Selling Stockholders without registration and without regard to any volume limitations by reason of Rule 144(k) under the Securities Act or any other rule of similar effect or (ii) all of the shares have been sold pursuant to the prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to our common stock for a period of two business days prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of our common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale.

#### 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 schedule incorporated by reference in this prospectus 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 herein in reliance upon such report given upon the authority of said firm as experts in auditing and accounting.

Approximately 85% and 87% of the total hours spent on the audit of our financial statements for the years ended December 31, 2003 and 2002, respectively, were spent by Gallogly, Fernandez & Riley, LLP ("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.

#### 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:

- o Our annual report on Form 10-K for the fiscal year ended December 31, 2003;
- o Our current report on Form 8-K filed on March 2, 2004;
- o Our current report on Form 8-K filed on March 23, 2004;
- o Our current report on Form 8-K/A filed on April 2, 2004;
- o Our current report on Form 8-K filed on April 8, 2004;
- o Our current report on Form 8-K filed on April 30, 2004; and
- o Description of our common stock contained in our Registration Statement on Form 8-A, dated October 30, 1992.

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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- ). 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 website.

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[PERMAFIX ENVIRONMENTAL SERVICES LOGO]

6,391,751 SHARES

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

COMMON STOCK

-----

PROSPECTUS

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\_\_\_\_\_, 2004

## PART II

## INFORMATION NOT REQUIRED IN PROSPECTUS

## Item 14. Other Expenses of Issuance and Distribution

## Nature of Expenses

SEC Registration Fee	\$	1,685
Legal Fees (Including Blue Sky)	\$	25,000
Accounting Fees and Expenses	\$	6,500
Printing	\$	500
Miscellaneous	\$	0
		-----
Total:	\$	33,685
		-----

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

EXHIBIT NO.

DESCRIPTION

- |     |  |
|-----|--|
| 4.1 | Securities Purchase Agreement dated March 16, 2004, between the Company and Alexandra Global Master Fund, Ltd., Alpha Capital AG, Baystar Capital II, L.P., Bristol Investment Fund, Ltd., Crescent International Ltd, Crestview Capital Master LLC, Geduld Capital Partners LP, Gruber & McBaine International, Irwin Geduld Revocable Trust, J Patterson McBaine, Jon D. Gruber and Linda W. Gruber, Lagunitas Partners LP, Omicron Master Trust, Palisades Master Fund, L.P., Stonestreet LP. The Company will furnish supplementally a copy of all omitted schedules to the Commission upon request. |
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4.2 Registration Rights Agreement, dated March 16, 2004, between the Company and Alexandra Global Master Fund, Ltd., Alpha Capital AG, Baystar Capital II, L.P., Bristol Investment Fund, Ltd., Crescent International Ltd, Crestview Capital Master LLC, Geduld Capital Partners LP, Gruber & McBaine International, Irwin Geduld Revocable Trust, J Patterson McBaine, Jon D. Gruber and Linda W. Gruber, Lagunitas Partners LP, Omicron Master Trust, Palisades Master Fund, L.P., Stonestreet LP.

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4.3 Common Stock Purchase Warrant, dated March 16, 2004, issued by the company to Alexandra Global Master Fund, Ltd., for the purchase of 262,500 shares of the Company's common stock. Substantially similar warrants were issued by the Company to the following: (1) Alpha Capital AG, for the purchase of up to 54,444 shares; (2) Baystar Capital II, L.P., for the purchase of up to 63,000 shares; (3) Bristol Investment Fund, Ltd., for the purchase of up to 62,222 shares; (4) Crescent International Ltd, for the purchase of up to 105,000 shares; (5) Crestview Capital Master LLC, for the purchase of up to 233,334 shares; (6) Geduld Capital Partners LP, for the purchase of up to 26,250 shares; (7) Gruber & McBaine International, for the purchase of up to 38,889 shares; (8) Irwin Geduld Revocable Trust, for the purchase of up to 17,500 shares; (9) J Patterson McBaine, for the purchase of up to 15,555 shares; (10) Jon D. Gruber and Linda W. Gruber, for the purchase of up to 38,889 shares; (11) Lagunitas Partners LP, for the purchase of up to 93,333 shares; (12) Omicron Master Trust, for the purchase of up to 77,778 shares; (13) Palisades Master Fund, L.P., for the purchase of up to 472,500 shares; and (14) Stonestreet LP, for the purchase of up to 54,444 shares. Copies will be provided to the Commission upon request.

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4.4 Loan and Security Agreement by and between the Company, subsidiaries of the Company as signatories thereto, and PNC Bank, National Association, dated December 22, 2000, as incorporated by reference from Exhibit 99.1 to the Company's Form 8-K dated December 22, 2000.

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4.5 First Amendment to Loan Agreement and Consent, dated January 30, 2001, between the Company and PNC Bank, National Association as incorporated by reference from Exhibit 99.7 to the Company's Form 8-K dated January 31, 2001.

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4.6 Note and Warrant Purchase Agreement, dated July 31, 2001, among the Company, AMI, and BEC is incorporated by reference from Exhibit 99.1 to the Company's Form 8-K, dated July 30, 2001.

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5.1 Opinion of Conner & Winters, P.C.

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10.1 Asset Purchase Agreement dated March 23, 2004, between the Company and USL Environmental Services, Inc., a Maryland corporation, d/b/a A & A Environmental, is incorporated by reference from Exhibit 5.1 of our Current Report on Form 8-K dated March 23, 2004, and filed on April 8, 2004. The Company will furnish supplementally a copy of all omitted schedules to the Commission upon request.

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10.2 Asset Purchase Agreement dated March 23, 2004, between the Company and US Liquids of Pennsylvania, Inc., a Pennsylvania corporation, d/b/a EMAX of Pittsburgh, Pa., is incorporated by reference from Exhibit 5.2 of our Current Report on Form 8-K dated March 23, 2004, and filed on April 8, 2004. The Company will furnish supplementally a copy of all omitted schedules to the Commission upon request.

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10.3 Common Stock Purchase Warrant, dated March 16, 2004, granted by the Company to R. Keith Fetter. Substantially similar warrants were granted to Joe Dilustro and Chet Dubov, each for the purchase of 30,000 shares of the Company's common stock. Copies will be provided to the Commission upon request.

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23.1 Consent of BDO Seidman, LLP.

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23.2 Consent of Conner & Winters, as contained in Exhibit 5.1 hereto and incorporated herein by reference.

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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;
  - (ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement;
  - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

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

- (2) That, for the purpose of determining any liability under the Act, each post-effective amendment 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.
- (3) To remove from registration by means of a post-effective amendment any of the securities being 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.

SIGNATURES FOR FORM S-3

Pursuant to the requirements of the Act of 1933, the Registrant certifies that it has reasonable 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 30th day of April, 2004.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

By: /s/ Dr. Louis F. Centofanti

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 Dr. Louis F. Centofanti  
 Chairman of the Board  
 Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Dr. Louis F. Centofanti and Richard T. Kelecy, and each of them, with full power of substitution and resubstitution and each with full power to act without the other, his or her true and lawful attorney-in-fact and agent, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission or any state, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their, his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

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.

<TABLE>  
 <CAPTION>

SIGNATURE -----	TITLE -----	DATE ----
<S> /s/ Dr. Louis F. Centofanti ----- Dr. Louis F. Centofanti	<C>  Chairman of the Board of Directors, President, and Chief Executive Officer (Principal Executive Officer)	<C>  April 30, 2004
/s/ Richard T. Kelecy ----- Richard T. Kelecy	Chief Financial Officer (Principal Financial and Accounting Officer)	April 30, 2004
/s/ Jon Colin ----- Jon Colin	Director	April 30, 2004
/s/ Jack Lahay ----- Jack Lahav	Director	April 30, 2004
/s/ Joe R. Reeder ----- Joe R. Reeder	Director	April 30, 2004

</TABLE>

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<TABLE>  
 <CAPTION>

<S> /s/ Alfred C. Warrington, IV ----- Alfred C. Warrington, IV	<C>  Director	<C>  April 30, 2004
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/s/ Dr. Charles E. Young

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Dr. Charles E. Young

Director

April 30, 2004

/s/ Mark A. Zwecker

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Mark A. Zwecker

Director

April 30, 2004

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EXHIBIT 4.1

SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (this "AGREEMENT") is dated as of March 16, 2004, among Perma-Fix Environmental Services, Inc., a Delaware corporation (the "COMPANY"), and each purchaser identified on the signature pages hereto (each, including its successors and assigns, a "PURCHASER" and collectively the "Purchasers"); and

WHEREAS, subject to the terms and conditions set forth in this Agreement and pursuant to Section 4(2) of the Securities Act (as defined below), and Rule 506 promulgated thereunder, the Company desires to issue and sell to each Purchaser, and each Purchaser, severally and not jointly, desires to purchase from the Company in the aggregate, up to \$15,000,000 of shares of Common Stock and Warrants on the Closing Date.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and each Purchaser agrees as follows:

ARTICLE I.  
DEFINITIONS

1.1 DEFINITIONS. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings indicated in this Section 1.1:

"2003 FORM 10-K" means the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2003, as filed with the Commission.

"ACTION" shall have the meaning ascribed to such term in Section 3.1(j).

"AFFILIATE" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 144. With respect to a Purchaser, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Purchaser will be deemed to be an Affiliate of such Purchaser.

"CLOSING" means the closing of the purchase and sale of the Common Stock and the Warrants pursuant to Section 2.1.

"CLOSING DATE" means the Trading Day when all of the Transaction Documents have been executed and delivered by the applicable parties thereto, and all conditions precedent to (i) the Purchasers' obligations to pay the Subscription Amount and (ii) the Company's obligations to deliver the Securities have been satisfied or waived.

"CLOSING PRICE" means on any particular date (a) the last reported closing bid price per share of Common Stock on such date on the Trading Market (as reported by Bloomberg L.P. at 4:15 PM (New York time), or (b) if there is no such price on such date, then the closing bid price on the Trading Market on the date nearest preceding such date (as reported by

Bloomberg L.P. at 4:15 PM (New York time) for the closing bid price for regular session trading on such day), or (c) if the Common Stock is not then listed or quoted on a Trading Market and if prices for the Common Stock are then quoted on the OTC Bulletin Board, the closing bid price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board (as reported by Bloomberg L.P. at 4:15 PM (New York time), (d) if the Common Stock is not then listed or quoted on the Trading Market and if prices for the Common Stock are then reported in the "pink sheets" published by the Pink Sheets LLC (formerly the National Quotation Bureau Incorporated (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (e) if the shares of Common Stock are not then publicly traded the fair market value of a share of Common Stock as determined by a qualified independent appraiser selected in good faith by the Purchasers of a majority in interest of the Shares then outstanding.

"COMMISSION" means the Securities and Exchange Commission.

"COMMON STOCK" means the common stock of the Company, \$0.001 par value per share, and any securities into which such common stock may hereafter be reclassified.

"COMMON STOCK EQUIVALENTS" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"COMPANY COUNSEL" means Conner & Winters, P.C.

"DISCLOSURE SCHEDULES" means the disclosure schedules of the Company delivered concurrently herewith.

"EFFECTIVE DATE" means the date that the Registration Statement is first declared effective by the Commission.

"ESCROW AGENT" shall have the meaning set forth in the Escrow Agreement.

"ESCROW AGREEMENT" shall mean the Escrow Agreement in substantially the form of EXHIBIT D hereto executed and delivered contemporaneously with this Agreement.

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"EXCHANGE ACT" means the Securities Exchange Act of 1934, as amended.

"EXEMPT ISSUANCE" means the issuance of (a) shares of Common Stock or options to employees, bona fide consultants, bona fide prospective employees, officers or directors of the Company pursuant to any stock or option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose or (b) securities upon the exercise of or conversion of any convertible securities, options or warrants issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement.

"FORCE MAJEURE" shall mean any unusual event arising from causes reasonably beyond the control of the Company that could not be reasonably anticipated that causes a delay in or prevents the performance of any

obligation under this Agreement or the agreements contemplated hereby, including but not limited to: acts of God; fire; war; terrorism; insurrection; civil disturbance; explosion; adverse weather conditions that could not be reasonably anticipated; unusual delay in transportation; strikes or other labor disputes; restraint by court order or order of public authority but specifically not including any event resulting from the failure of the Commission or Company's transfer agent to act or perform any function.

"FW" means Feldman Weinstein LLP with offices located at 420 Lexington Avenue, Suite 2620, New York, New York 10170-0002.

"INTELLECTUAL PROPERTY RIGHTS" shall have the meaning ascribed to such term in Section 3.1(o).

"LIENS" means a lien, charge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

"MATERIAL ADVERSE EFFECT" shall have the meaning ascribed to such term in Section 3.1(b).

"MATERIAL PERMITS" shall have the meaning ascribed to such term in Section 3.1(m).

"PER SHARE PURCHASE PRICE" equals \$2.25, subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement.

"PERSON" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

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"PROCEEDING" means an action, claim, suit, investigation or proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened.

"REGISTRATION RIGHTS AGREEMENT" means the Registration Rights Agreement, dated as of the date of this Agreement, among the Company and each Purchaser, in the form of EXHIBIT A hereto.

"REGISTRATION STATEMENT" means a registration statement meeting the requirements set forth in the Registration Rights Agreement and covering the resale by the Purchasers of the Shares and the Warrant Shares.

"REQUIRED APPROVALS" shall have the meaning ascribed to such term in Section 3.1(e).

"RULE 144" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

"SEC REPORTS" shall have the meaning ascribed to such term in Section 3.1(h).

"SECURITIES" means the Shares, the Warrants and the Warrant Shares.

"SECURITIES ACT" means the Securities Act of 1933, as amended.

"SHARES" means the shares of Common Stock issued or issuable to each Purchaser pursuant to this Agreement.

"SUBSCRIPTION AMOUNT" means, as to each Purchaser, the amounts set forth below such Purchaser's signature block on the signature page hereto, in United States dollars and in immediately available funds.

"SUBSIDIARY" shall mean the subsidiaries of the Company, if any, set forth on SCHEDULE 3.1(A).

"TRADING DAY" means a day on which the Common Stock is traded on a Trading Market.

"TRADING MARKET" means the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq SmallCap Market, the American Stock Exchange, the New York Stock Exchange, the Nasdaq National Market or the OTC Bulletin Board.

"TRANSACTION DOCUMENTS" means this Agreement, the Warrants, the Escrow Agreement and the Registration Rights Agreement and any other documents or agreements executed in connection with the transactions contemplated hereunder.

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"WARRANTS" means the Common Stock Purchase Warrants, in the form of EXHIBIT B, issuable to the Purchasers at the Closing, which warrants shall be exercisable immediately upon issuance for a term of 3 years and have an exercise price equal to \$2.92 per share.

"WARRANT SHARES" means the shares of Common Stock issuable upon exercise of the Warrants.

## ARTICLE II. PURCHASE AND SALE

2.1 CLOSING. On the Closing Date, each Purchaser shall purchase from the Company, severally and not jointly with the other Purchasers, and the Company shall issue and sell to each Purchaser, (a) a number of Shares equal to such Purchaser's Subscription Amount divided by the Per Share Purchase Price and (b) the Warrants as determined pursuant to Section 2.2(a)(iii). The aggregate Subscription Amounts for Shares sold hereunder shall be up to \$15,000,000. Upon satisfaction of the conditions set forth in Section 2.2, the Closing shall occur at the offices of the Escrow Agent or such other location as the parties shall mutually agree.

### 2.2 CLOSING CONDITIONS; DELIVERIES.

(a) On the Closing Date, the Company shall deliver or cause to be delivered to the Escrow Agent with respect to each Purchaser the following:

(i) this Agreement duly executed by the Company;

(ii) a number of Shares equal to such Purchaser's Subscription Amount divided by the Per Share Purchase Price registered in the name of such Purchaser;

(iii) a Warrant, registered in the name of such Purchaser, pursuant to which such Purchaser shall have the right to acquire up

to the number of shares of Common Stock equal to 35% of the Shares to be issued to such Purchaser at the Closing;

(iv) the Registration Rights Agreement duly executed by the Company;

(v) the Escrow Agreement duly executed by the Company; and

(vi) a legal opinion of Company Counsel, in the form of EXHIBIT C attached hereto.

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(b) On the Closing Date, each Purchaser shall deliver or cause to be delivered to the Escrow Agent the following:

(i) this Agreement duly executed by such Purchaser;

(ii) such Purchaser's Subscription Amount by wire transfer to the account of the Escrow Agent;

(iii) the Escrow Agreement duly executed by such Purchaser; and

(iv) the Registration Rights Agreement duly executed by such Purchaser.

(c) All representations and warranties of the other party contained herein shall remain true and correct as of the Closing Date and all covenants of the other party shall have been performed if due prior to such date.

(d) From the date hereof to the Closing Date, trading in the Common Stock shall not have been suspended by the Commission (except for any suspension of trading of limited duration agreed to by the Company, which suspension shall be terminated prior to the Closing), and, at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg Financial Markets shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on any Trading Market, nor shall a banking moratorium have been declared either by the United States or New York State authorities nor shall there have occurred any material outbreak or escalation of hostilities or other national or international calamity of such magnitude in its effect on, or any material adverse change in, any financial market which, in each case, in the reasonable judgment of each Purchaser, makes it impracticable or inadvisable to purchase the Shares at the Closing.

### ARTICLE III.

#### REPRESENTATIONS AND WARRANTIES

3.1 REPRESENTATIONS AND WARRANTIES OF THE COMPANY. Except as set forth under the corresponding section of the Disclosure Schedules which Disclosure Schedules shall be deemed a part hereof, the Company hereby makes the representations and warranties set forth below to each Purchaser:

(a) SUBSIDIARIES. All of the direct and indirect subsidiaries of the Company are set forth on SCHEDULE 3.1(A). The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any Liens, and all the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are

fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities. If the Company has no subsidiaries, then references in the Transaction Documents to the Subsidiaries will be disregarded.

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(b) ORGANIZATION AND QUALIFICATION. Each of the Company and the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization (as applicable), with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation or default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would have (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, or (ii) a material adverse effect on the results of operations, assets, business, prospects or financial condition of the Company and the Subsidiaries, taken as a whole, (any of (i) or (ii), a "MATERIAL ADVERSE EFFECT") and no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(c) AUTHORIZATION; ENFORCEMENT. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by each of the Transaction Documents and otherwise to carry out its obligations thereunder. The execution and delivery of each of the Transaction Documents by the Company and the consummation by it of the transactions contemplated thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company in connection therewith other than in connection with the Required Approvals. Each Transaction Document has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally and (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies.

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(d) NO CONFLICTS. The execution, delivery and performance of the Transaction Documents by the Company, the issuance and sale of the Shares and the consummation by the Company of the other transactions contemplated thereby do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument

(evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected, or (iv) conflict with or violate the terms of any agreement by which the Company or any Subsidiary is bound or to which any property or asset of the Company or any Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as would not have or reasonably be expected to result in a Material Adverse Effect.

(e) FILINGS, CONSENTS AND APPROVALS. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than (i) filings required pursuant to Section 4.4 of this Agreement, (ii) the filing with the Commission of the Registration Statement the prospectus contained therein, and pre- and post-effective supplements and amendments thereto, (iii) application(s) to each applicable Trading Market and the Boston Stock Exchange for the listing of the Shares and Warrant Shares for trading thereon in the time and manner required thereby, and (iv) the filing of Form D with the Commission and such filings as are required based on the Company's determination to be made under applicable state securities laws (collectively, the "REQUIRED APPROVALS").

(f) ISSUANCE OF THE SECURITIES. The Shares and Warrants are duly authorized and, when issued and paid for in accordance with the Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company other than restrictions on transfer provided for in the Transaction Documents. The Warrant Shares, when issued in accordance with the terms of the Transaction Documents, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement and the Warrants.

(g) CAPITALIZATION. The capitalization of the Company is as described in the Company's most recent periodic report filed with the Commission. The Company has not issued any capital stock since such filing other than pursuant to the exercise of employee stock options under the Company's stock option plans, the issuance of shares of Common Stock to employees pursuant to the Company's employee stock purchase plan and pursuant to the conversion or exercise of outstanding Common Stock Equivalents. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as a result of the purchase and sale of the Securities, there are no outstanding options, warrants, script rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any

Subsidiary is or may become bound to issue additional shares of Common Stock, or securities or rights convertible or exchangeable into shares of Common Stock other than pursuant to the Company's stock plans and its outstanding Common Stock Equivalents. The issue and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Purchasers) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under such securities. All of the outstanding shares of capital stock of the Company are validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. No further approval or authorization of any stockholder, the Board of Directors of the Company or others is required for the issuance and sale of the Shares, other than the Required Approvals. Except as disclosed in the SEC Reports, there are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

(h) SEC REPORTS; FINANCIAL STATEMENTS. The Company has filed all reports required to be filed by it under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law to file such material), including the 2003 Form 10-K (the foregoing materials, including the exhibits thereto, being collectively referred to herein as the "SEC REPORTS") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act and the rules and regulations of the Commission promulgated thereunder, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(i) MATERIAL CHANGES. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in the SEC Reports, (i) there has been no event, occurrence or development that would result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or required to be disclosed in filings made with the Commission,

(iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company stock option plans or stock purchase plans. The Company does not have pending before the Commission any request for confidential treatment of information.

(j) LITIGATION. There is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "ACTION") which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) would, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act.

(k) LABOR RELATIONS. No material labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company which would result in a Material Adverse Effect.

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(l) COMPLIANCE. Neither the Company nor any Subsidiary (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any order of any court, arbitrator or governmental body, or (iii) is or has been in violation of any statute, rule or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws applicable to its business except in each case as would not have a Material Adverse Effect.

(m) REGULATORY PERMITS. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits would not have or reasonably be expected to result in a Material Adverse Effect ("MATERIAL PERMITS"), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit.

(n) TITLE TO ASSETS. The Company and the Subsidiaries have good and marketable title in fee simple to all real property owned by them that is

material to the business of the Company and the Subsidiaries and good and marketable title in all personal property owned by them that is material to the business of the Company and the Subsidiaries, in each case free and clear of all Liens, except for Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases of which the Company and the Subsidiaries are in compliance.

(o) PATENTS AND TRADEMARKS. The Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, copyrights, licenses and other similar rights necessary or material for use in connection with their respective businesses as described in the SEC Reports and which the failure to so would have a Material Adverse Effect (collectively, the "INTELLECTUAL PROPERTY RIGHTS"). Neither the Company nor any Subsidiary has received a written notice that the Intellectual Property Rights used by the Company or any Subsidiary violates or infringes upon the rights of any Person. To the knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights of others.

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(p) INSURANCE. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company and the Subsidiaries are engaged. To the best of Company's knowledge, such insurance contracts and policies are accurate and complete. Neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

(q) TRANSACTIONS WITH AFFILIATES AND EMPLOYEES. Except as set forth in the SEC Reports, none of the executive officers or directors of the Company is presently a party to any transaction with the Company or any Subsidiary (other than for services as executive officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any executive officer or director or, to the knowledge of the Company, any entity in which any executive officer or director has a substantial interest or is an officer, director, trustee or partner, in each case in excess of \$60,000 other than (i) for payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) for other employee benefits, including stock option agreements under any stock option plan of the Company.

(r) SARBANES-OXLEY; INTERNAL ACCOUNTING CONTROLS. The Company is in material compliance with all provisions of the Sarbanes-Oxley Act of 2002 which are applicable to it as of the Closing Date. Since December 31, 2003, there have been no significant changes in the Company's internal controls (as such term is defined in Item 307(b) of Regulation S-K under the Exchange Act) or, to the Company's knowledge, in other factors that could significantly affect the Company's internal controls.

(s) CERTAIN FEES. No brokerage or finder's fees or commissions are

or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by this Agreement. The Purchasers shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by this Agreement.

(t) PRIVATE PLACEMENT. Assuming the accuracy of the Purchasers representations and warranties set forth in Section 3.2, no registration under the Securities Act is required for the offer and sale of the Securities by the Company to the Purchasers as contemplated hereby, except as required by the terms of the Transaction Documents. The issuance and sale of the Securities hereunder does not contravene the rules and regulations of the Trading Market.

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(u) INVESTMENT COMPANY. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Shares, will not be or be an Affiliate of, an "investment company" within the meaning of the Investment Company Act of 1940, as amended. The Company shall conduct its business in a manner so that it will not become subject to the Investment Company Act.

(v) REGISTRATION RIGHTS. Except as set forth in SCHEDULE 3.1(V), no Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company.

(w) LISTING AND MAINTENANCE REQUIREMENTS. The Company's Common Stock is registered pursuant to Section 12(b) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. The Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements.

(x) APPLICATION OF TAKEOVER PROTECTIONS. Assuming none of the Purchasers, individually or as a "group" as described in Section 13(d)(3) of the Securities Act, beneficially own more than 4.99% of Common Stock for purposes of this representation, the Company and its Board of Directors have not and will not adopt any poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's Certificate of Incorporation (or similar charter documents) that would prohibit the Purchasers and the Company from fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation the Company's issuance of the Securities and the Purchasers' ownership of the Securities acquired under the terms of this Agreement.

(y) DISCLOSURE. The Company confirms that, neither the Company nor any other Person acting on its behalf has provided any of the Purchasers or their agents or counsel with any information that constitutes or might constitute material, non-public information. The Company understands and confirms that the Purchasers will rely on the foregoing representations

and covenants in effecting transactions in securities of the Company. All disclosure provided to the Purchasers regarding the Company, its business and the transactions contemplated hereby, including the Schedules to this Agreement, furnished by or on behalf of the Company with respect to the representations and warranties made herein are true and correct with respect to such representations and warranties and do not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The Company acknowledges and agrees that no Purchaser makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in the Transaction Documents.

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(z) NO INTEGRATED OFFERING. Assuming the accuracy of the Purchasers' representations and warranties set forth in Section 3.2, neither the Company, nor any of its affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of the Securities Act or any applicable shareholder approval provisions, including, without limitation, under the rules and regulations of any exchange or automated quotation system on which any of the securities of the Company are listed or designated.

(aa) Intentionally Omitted.

(bb) FORM S-3 ELIGIBILITY. The Company is eligible to register the resale of its Common Stock by the Purchasers under Form S-3 promulgated under the Securities Act and the Company hereby covenants and agrees to use its best efforts to maintain its eligibility to use Form S-3 until the Registration Statement covering the resale of the Shares shall have been filed with, and declared effective by, the Commission.

(cc) TAXES. Except for matters that would not, individually or in the aggregate, would have or reasonably be expected to result in a Material Adverse Effect, the Company and each Subsidiary has filed all necessary federal, state and foreign income and franchise tax returns and has paid or accrued all taxes shown as due thereon, and the Company has no knowledge of a tax deficiency which has been asserted or threatened against the Company or any Subsidiary.

(dd) GENERAL SOLICITATION. Neither the Company nor any person acting on behalf of the Company has offered or sold any of the Shares by any form of general solicitation or general advertising. The Company has offered the Shares for sale only to the Purchasers and certain other "accredited investors" within the meaning of Rule 501 under the Securities Act.

(ee) FOREIGN CORRUPT PRACTICES. Neither the Company, nor to the knowledge of the Company, any agent or other person acting on behalf of the Company, has (i) directly or indirectly, used any corrupt funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

(ff) ACCOUNTANTS. The Company's accountants are set forth on SCHEDULE 3.1(FF) of the Disclosure Schedule. To the Company's knowledge, such accountants, who the Company expects will express their opinion with respect to the financial statements to be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2003, are independent accountants as required by the Securities Act.

(gg) ACKNOWLEDGMENT REGARDING PURCHASERS' PURCHASE OF SHARES. The Company acknowledges and agrees that it has been advised by each of the Purchasers that each of the Purchasers is acting solely in the capacity of an arm's length purchaser with respect to the Transaction Documents and the transactions contemplated hereby. The Company further acknowledges that it has been advised by each of the Purchasers that no Purchaser is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to this Agreement and the transactions contemplated hereby and any advice given by any Purchaser or any of their respective representatives or agents in connection with this Agreement and the transactions contemplated hereby is merely incidental to the Purchasers' purchase of the Shares. The Company further represents to each Purchaser that the Company's decision to enter into this Agreement has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives and representations by each of the Purchasers contained in this Agreement.

3.2 REPRESENTATIONS AND WARRANTIES OF THE PURCHASERS. Each Purchaser hereby, for itself and for no other Purchaser, represents and warrants as of the date hereof and as of the Closing Date to the Company as follows:

(a) ORGANIZATION; AUTHORITY. Such Purchaser is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization with full right, corporate or partnership power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations thereunder. The execution, delivery and performance by such Purchaser of the transactions contemplated by this Agreement have been duly authorized by all necessary corporate or similar action on the part of such Purchaser. Each Transaction Document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(b) INVESTMENT INTENT. Such Purchaser understands that the Securities are "restricted securities" and have not been registered under the Securities Act or any applicable state securities law and is acquiring the Securities as principal for its own account for investment purposes only and not with a view to or for distributing or reselling such Securities or any part thereof, has no present intention of distributing

any of such Securities and has no arrangement or understanding with any other persons regarding the distribution of such Securities (this representation and warranty not limiting such Purchaser's right to sell the Securities pursuant to the Registration Statement or otherwise in compliance with applicable federal and state securities laws). Such Purchaser is acquiring the Securities hereunder in the ordinary course of its business. Such Purchaser does not have any agreement or understanding, directly or indirectly, with any Person to distribute any of the Securities.

(c) PURCHASER STATUS. At the time such Purchaser was offered the Securities, it was, and at the date hereof it is, and on each date on which it exercises any Warrants, it will be an "accredited investor" as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7) or (a)(8) under the Securities Act and such investor has total assets in excess of \$5,000,000. Such Purchaser is not required to be registered as a broker-dealer under Section 15 of the Exchange Act.

(d) EXPERIENCE OF SUCH PURCHASER. Such Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Securities, and has so evaluated the merits and risks of such investment. Such Purchaser is able to bear the economic risk of an investment in the Securities and, at the present time, is able to afford a complete loss of such investment.

(e) GENERAL SOLICITATION. Such Purchaser is not purchasing the Securities as a result of any advertisement, article, notice or other communication regarding the Securities published in any newspaper, magazine or similar media or broadcast over television or radio or presented at any seminar or any other general solicitation or general advertisement.

(f) REGISTRATION REQUIRED. Such Purchaser hereby covenants with the Company not to make any sale of the Shares and Warrant Shares without complying with the provisions hereof and of the Registration Rights Agreement, and without effectively causing the prospectus delivery requirement under the Securities Act to be satisfied (unless such Purchaser is selling such Shares and Warrant Shares in a transaction not subject to the prospectus delivery requirement), and such Purchaser acknowledges that the certificates evidencing the Shares and Warrant Shares will be imprinted with a legend that prohibits their transfer except in accordance therewith.

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(g) NO TAX OR LEGAL ADVICE. Such Purchaser understands that nothing in this Agreement, any other Transaction Document or any other materials presented to such Purchaser in connection with the purchase and sale of the Securities constitutes legal, tax or investment advice. Such Purchaser has consulted such legal, tax and investment advisors as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of Securities.

(h) DISCLOSURE OF INFORMATION. Such Purchaser believes it has received all the information it considers necessary or appropriate for deciding whether to purchase the Shares and Warrants. Such Purchaser further represents that it has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of the Shares and Warrants and the business, properties, prospects and financial condition of the Company. Such Purchaser has

reviewed the 2003 Form 10-K, including, without limitation, all of the Risk Factors set forth therein (the "RISK FACTORS"). Each such Purchaser understands and accepts all of the Risk Factors in connection with such Purchaser's investment in the Securities. In addition, each Purchaser has reviewed and is aware of the information set forth in all SEC Reports filed with the SEC since the filing of the 2003 10-K. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 3 of this Agreement or the right of the Purchasers to rely thereon.

(i) RECEIPT OF INFORMATION. The Purchasers confirm that, neither the Purchasers nor any other Person acting on their behalf has received from the Company or its agents or counsel with any information that constitutes or might constitute material, non-public information. The Purchasers understand and confirm that the Company will rely on the foregoing representations and covenants in effecting transactions in securities of the Purchasers. The Purchasers acknowledge and agree that the Company has not made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in the Transaction Documents.

(j) RELIANCE OF SEC REPORTS. In making the investment decision in connection with the purchase of the Securities, the Purchasers have relied only on the information set forth in the SEC Reports and have not incurred nor relied upon any information not contained in the SEC Reports.

(k) OPEN SHORT POSITION. As of the date hereof, each Purchaser, for itself only, represents and warrants that neither it, nor any person or entity acting at the direction of such Purchaser, holds an open short position in the Common Stock.

The Company acknowledges and agrees that each Purchaser does not make or has not made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in this Section 3.2.

ARTICLE IV.  
OTHER AGREEMENTS OF THE PARTIES

4.1 TRANSFER RESTRICTIONS.

(a) The Securities may only be disposed of in compliance with state and federal securities laws. In connection with any transfer of Securities other than pursuant to an effective registration statement or Rule 144, to the Company or to an Affiliate of a Purchaser or in connection with a pledge as contemplated in Section 4.1(b) (provided that such transfer is in compliance with the Securities Act), the Company may require the transferor thereof to provide to the Company an opinion of counsel selected by the transferor and reasonably acceptable to the Company, the form and substance of which opinion and shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration of such transferred Securities under the Securities Act. As a condition of transfer, any such transferee shall agree in writing to be bound by the terms of this Agreement and shall have the rights of a Purchaser under this Agreement and the Registration Rights Agreement.

(b) The Purchasers agree to the imprinting, so long as is required by this Section 4.1(b), of a legend on any of the Securities in the following form:

THESE SECURITIES HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY. THESE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT.

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The Company acknowledges and agrees that a Purchaser may from time to time pledge pursuant to a bona fide margin agreement with a registered broker-dealer or grant a security interest in some or all of the Securities to a financial institution that is an "accredited investor" as defined in Rule 501(a) under the Securities Act and who agrees to be bound by the provisions of this Agreement and the Registration Rights Agreement and, if required under the terms of such arrangement, such Purchaser may transfer pledged or secured Securities to the pledgees or secured parties. Such a pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the pledgee, secured party or pledgor shall be required in connection therewith. Further, no notice shall be required of such pledge. At the appropriate Purchaser's expense, the Company will execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities, including, if the Securities are subject to registration pursuant to the Registration Rights Agreement, the preparation and filing of any required prospectus supplement under Rule 424(b)(3) under the Securities Act or other applicable provision of the Securities Act to appropriately amend the list of Selling Stockholders thereunder.

(c) Certificates evidencing the Shares and Warrant Shares shall not contain any legend (including the legend set forth in Section 4.1(b)), (i) while a registration statement (including the Registration Statement) covering the resale of such security is effective under the Securities Act, or (ii) following any sale of such Shares or Warrant Shares pursuant to Rule 144, or (iii) if such Shares or Warrant Shares are eligible for sale under Rule 144(k), or (iv) if such legend is not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the Staff of the Commission). The Company shall cause its counsel to issue a legal opinion to the Company's transfer agent promptly after the Effective Date if required by the Company's transfer agent to effect the removal of the legend hereunder. If all or any portion of a Warrant is exercised at a time when there is an effective registration statement to cover the resale of the Warrant Shares, such Warrant Shares shall be issued free of all legends. The Company agrees that following the Effective Date or at such time as such legend is no longer required under this Section 4.1(c), it will, no later than seven (7) Trading Days following the delivery by a Purchaser to the Company or the Company's transfer agent of a certificate representing Shares or Warrant Shares, as the case may be, issued with a restrictive legend (such date, the "LEGEND REMOVAL DATE"), deliver or cause to be delivered to such Purchaser a certificate representing such Securities that is free from all restrictive and other legends. The Company may not

make any notation on its records or give instructions to any transfer agent of the Company that enlarge the restrictions on transfer set forth in this Section.

(d) In addition to such Purchaser's other available remedies, the Company shall pay to a Purchaser, in cash, as partial liquidated damages and not as a penalty, for each \$1,000 of Shares or Warrant Shares (based on the VWAP of the Common Stock on the date such Securities are submitted to the Company's transfer agent) subject to Section 4.1(c), \$10 per Trading Day (increasing to \$20 per Trading Day five (5) Trading Days after such damages have begun to accrue) for each Trading Day after the Legend Removal Date until such certificate is delivered. Nothing herein shall limit such Purchaser's right to pursue actual damages for the Company's failure to deliver certificates representing any Securities as required by the Transaction Documents, and such Purchaser shall have the right to pursue all remedies available to it at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief.

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(e) Each Purchaser, severally and not jointly with the other Purchasers, agrees that the removal of the restrictive legend from certificates representing Securities as set forth in this Section 4.1 is predicated upon the Company's reliance on each Purchaser's representation that the Purchaser will sell any Securities pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or an exemption therefrom.

(f) Until the date that each Purchaser holds less than 20% of the Shares initially purchased hereunder by such Purchaser, the Company shall not undertake a reverse or forward stock split or reclassification of the Common Stock without the prior written consent of the Purchasers holding a majority in interest of the Shares. Additionally, each Purchaser understands and acknowledges, severally and not jointly with the other Purchasers, that the SEC currently takes the position that coverage of short sales of shares of the Common Stock "against the box" prior to the Effective Date of the Registration Statement with the Shares purchased hereunder is a violation of Section 5 of the Securities Act, as set forth in Item 65, Section 5 under Section A, of the Manual of Publicly Available Telephone Interpretations, dated July 1997, compiled by the Office of Chief Counsel, Division of Corporation Finance. Accordingly, each Purchaser hereby agrees not to use any of the Shares to cover any short sales made prior to the Effective Date.

4.2 FURNISHING OF INFORMATION. As long as any Purchaser owns Securities, the Company covenants to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the Exchange Act. As long as any Purchaser owns Securities, if the Company is not required to file reports pursuant to the Exchange Act, it will prepare and furnish to the Purchasers and make publicly available in accordance with Rule 144(c) such information as is required for the Purchasers to sell the Securities under Rule 144. The Company further covenants that it will take such further action as any holder of Securities may reasonably request, all to the extent required from time to time to enable such Person to sell such Securities without registration under the Securities Act within the limitation of the exemptions provided by Rule 144.

4.3 INTEGRATION. The Company shall not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that would be integrated with the offer or sale of the Securities in a manner that would require the registration under the

Securities Act of the sale of the Securities to the Purchasers or that would be integrated with the offer or sale of the Securities for purposes of the rules and regulations of any Trading Market such that it would require shareholder approval prior to the closing of such other transaction unless shareholder approval is obtained before the closing of such subsequent transaction.

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4.4 SECURITIES LAWS DISCLOSURE; PUBLICITY. The Company shall, by 8:30 a.m. Eastern time on the Trading Day following the date hereof, issue a press release or file a Current Report on Form 8-K, in each case reasonably acceptable to HPC Capital Management ("HPC") disclosing the material terms of the transactions contemplated hereby. The Company and each Purchaser shall consult with each other in issuing any other press releases with respect to the transactions contemplated hereby, and neither the Company nor any Purchaser shall issue any such press release or otherwise make any such public statement without the prior consent of the Company, with respect to any press release of any Purchaser, or without the prior consent of each Purchaser, with respect to any press release of the Company, which consent shall not unreasonably be withheld, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser, or include the name of any Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, except (i) as required by federal securities law in connection with the registration statement contemplated by the Registration Rights Agreement and (ii) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchasers with prior notice of such disclosure permitted under subclause (i) or (ii).

4.5 SHAREHOLDERS RIGHTS PLAN. Assuming that none of the Purchasers beneficially, individually or as a "group" as described in Section 13(d)(3) of the Securities Act, owns more than 4.99% of the Common Stock for purposes of this Section 4.5, no claim will be made or enforced by the Company or, to the knowledge of the Company, any other Person that any Purchaser is an "Acquiring Person" under any shareholders rights plan or similar plan or arrangement in effect or hereafter adopted by the Company, or that any Purchaser could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Securities under the Transaction Documents. The Company shall conduct its business in a manner so that it will not become subject to the Investment Company Act.

4.6 NON-PUBLIC INFORMATION. The Company covenants and agrees that neither it nor any other Person acting on its behalf will provide any Purchaser or its agents or counsel with any information that the Company believes constitutes material non-public information, unless prior thereto such Purchaser shall have executed a written agreement regarding the confidentiality and use of such information. The Company understands and confirms that each Purchaser shall be relying on the foregoing representations in effecting transactions in securities of the Company.

4.7 USE OF PROCEEDS. Except as set forth on SCHEDULE 4.7 attached hereto, the Company shall use the net proceeds from the sale of the Securities hereunder for working capital purposes and not for the satisfaction of any portion of the Company's debt (including payment of trade payables in the ordinary course of the Company's business and prior practices), to redeem any Company equity or equity-equivalent securities or to settle any outstanding litigation.

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#### 4.8 Intentionally Omitted.

4.9 INDEMNIFICATION OF PURCHASERS. Subject to the provisions of this Section 4.9, the Company will indemnify and hold the Purchasers and their directors, officers, shareholders, partners, employees and agents (each, a "PURCHASER PARTY") harmless from any and all liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation (excluding any lost profits, incidental or consequential damages) that any such Purchaser Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents or (b) any action instituted against a Purchaser, or any of them or their respective Affiliates, by any stockholder of the Company who is not an Affiliate of such Purchaser, with respect to any of the transactions contemplated by the Transaction Documents (unless such action is based upon a breach of such Purchaser's representation, warranties or covenants under the Transaction Documents or any agreements or understandings such Purchaser may have with any such stockholder or any violations by the Purchaser of state or federal securities laws or any conduct by such Purchaser which constitutes fraud, gross negligence, willful misconduct or malfeasance). If any action shall be brought against any Purchaser Party in respect of which indemnity may be sought pursuant to this Agreement, such Purchaser Party shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing. Any Purchaser Party shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Purchaser Party except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of such separate counsel, a material conflict on any material issue between the position of the Company and the position of such Purchaser Party. The Company will not be liable to any Purchaser Party under this Agreement (i) for any settlement by an Purchaser Party effected without the Company's prior written consent, which shall not be unreasonably withheld or delayed; or (ii) to the extent, but only to the extent that a loss, claim, damage or liability is attributable to any Purchaser Party's breach of any of the representations, warranties, covenants or agreements made by the Purchasers in this Agreement or in the other Transaction Documents. A Purchaser Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Purchaser Party unless: (1) the Company has agreed in writing to pay such fees and expenses; (2) the Company shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Purchaser Party in any such Proceeding; or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Purchaser Party and the Company, and such Purchaser Party shall reasonably believe, based on the written advice, reasonably acceptable to the Company, of its counsel that a material conflict of interest is likely to exist if the same counsel were to represent such Purchaser Party and the Company (in which case, if such Purchaser Party notifies the Company in writing that it elects to employ separate counsel at the expense of the Company, the Company shall not have the right to assume the defense thereof and the reasonable fees and expenses of one separate counsel for all Indemnified Parties shall be at the expense of the Company).

4.10 RESERVATION OF COMMON STOCK. As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all

times, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue Shares pursuant to this Agreement and Warrant Shares pursuant to any exercise of the Warrants.

4.11 LISTING OF COMMON STOCK. The Company hereby agrees to use best efforts to maintain the listing of the Common Stock on a Trading Market, and as soon as reasonably practicable following the Closing (but not later than the earlier of the Effective Date and the first anniversary of the Closing Date) to list all of the Shares and Warrant Shares on such Trading Market. The Company further agrees, if the Company applies to have the Common Stock traded on any other Trading Market, it will include in such application all of the Shares and Warrant Shares, and will take such other action as is necessary to cause all of the Shares and Warrant Shares to be listed on such other Trading Market as promptly as possible. The Company will take all action reasonably necessary to continue the listing and trading of its Common Stock on a Trading Market and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market.

4.12 EQUAL TREATMENT OF PURCHASERS. No consideration shall be offered or paid to any person to amend or consent to a waiver or modification of any provision of any of the Transaction Documents unless the same consideration is also offered to all of the parties to the Transaction Documents. For clarification purposes, this provision constitutes a separate right granted to each Purchaser by the Company and negotiated separately by each Purchaser, and is intended to treat for the Company the Purchasers as a class and shall not in any way be construed as the Purchasers acting in concert or as a group with respect to the purchase, disposition or voting of Securities or otherwise.

4.13 PARTICIPATION IN FUTURE FINANCING. From the date hereof until 6 months after the Effective Date, upon any financing by the Company of its Common Stock or Common Stock Equivalents (a "SUBSEQUENT FINANCING"), each Purchaser shall have the right to participate in up to 100% of such Subsequent Financing (the "PARTICIPATION MAXIMUM"). At least 5 Trading Days prior to the closing of the Subsequent Financing, the Company shall deliver to each Purchaser a written notice of its intention to effect a Subsequent Financing ("PRE-NOTICE"), which Pre-Notice shall ask such Purchaser if it wants to review the details of such financing (such additional notice, a "SUBSEQUENT FINANCING NOTICE"). Upon the request of a Purchaser, and only upon a request by such Purchaser, for a Subsequent Financing Notice, the Company shall promptly, but no later than 1 Trading Day after such request, deliver a Subsequent Financing Notice to such Purchaser. The Subsequent Financing Notice shall describe in reasonable detail the proposed terms of such Subsequent Financing, the amount of proceeds intended to be raised thereunder, the Person with whom such Subsequent Financing is proposed to be effected, and attached to which shall be a term sheet or similar document relating thereto. If by 6:30 p.m. (New York City time) on the fifth Trading Day after all of the Purchasers have received the Pre-Notice, notifications by the Purchasers of their willingness to participate in the Subsequent Financing (or to cause their designees to participate) is, in the aggregate, less than the total amount of the Subsequent Financing, then the Company may effect the remaining portion of such Subsequent Financing on the terms and to the Persons set forth in the Subsequent Financing Notice. If the Company receives no notice from a Purchaser as of such 5th Trading Day, such Purchaser shall be deemed to have notified the Company that it does not elect to participate. The Company must provide the Purchasers with a second Subsequent Financing Notice, and the Purchasers will again have the right of participation set forth above in this Section 4.13, if the Subsequent Financing subject to the initial Subsequent Financing Notice is not consummated for any reason on the terms set forth in such Subsequent Financing Notice within 60 Trading Days after the date of the initial Subsequent Financing Notice. In the event the Company receives responses to Subsequent Financing Notices from Purchasers seeking to purchase more than the aggregate amount of the Subsequent Financing, each such Purchaser shall have the right to purchase their Pro Rata Portion (as defined below) of the Participation Maximum. "PRO RATA PORTION" is the ratio of (x) the Subscription Amount of Securities purchased by a participating Purchaser and (y)

the sum of the aggregate Subscription Amount of all participating Purchasers. Notwithstanding the foregoing, this Section 4.13 shall not apply in respect of an Exempt Issuance.

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4.14 SUBSEQUENT EQUITY SALES. From the date hereof until 3 months after the Effective Date, neither the Company nor any Subsidiary shall issue shares of Common Stock or Common Stock Equivalents; PROVIDED, HOWEVER, the 3 month period set forth in this Section 4.14 shall be extended for the number of Trading Days during such period in which (y) trading in the Common Stock is suspended by any Trading Market, or (z) following the Effective Date, the Registration Statement is not effective or the prospectus included in the Registration Statement may not be used by the Purchasers for the resale of the Shares and Warrant Shares. Notwithstanding the foregoing, this Section 4.14 shall not apply in respect of an Exempt Issuance or issuances of Common Stock or Common Stock Equivalents in connection with strategic offerings or acquisitions, the primary purpose of which is not to raise capital.

4.15 DELIVER OF SECURITIES AFTER CLOSING. The Company shall deliver, or cause to be delivered, the respective Shares and Warrants purchased by each Purchaser to such Purchaser within 5 Trading Days of the Closing Date.

ARTICLE V.  
MISCELLANEOUS

5.1 FEES AND EXPENSES. Except as otherwise set forth in this Agreement, each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement. The Company shall pay all stamp and other taxes and duties levied in connection with the sale of the Securities, if any.

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5.2 ENTIRE AGREEMENT. The Transaction Documents, together with the exhibits and schedules thereto, contain the entire understanding of the parties with respect to the subject matter hereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

5.3 NOTICES. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth on the signature pages attached hereto prior to 6:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth on the signature pages attached hereto on a day that is not a Trading Day or later than 6:30 p.m. (New York City time) on any Trading Day, (c) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto.

5.4 AMENDMENTS; WAIVERS. No provision of this Agreement may be waived or amended except in a written instrument signed, in the case of an amendment, by the Company and each Purchaser or, in the case of a waiver, by the party against

whom enforcement of any such waiver is sought. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of either party to exercise any right hereunder in any manner impair the exercise of any such right.

5.5 CONSTRUCTION. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

5.6 SUCCESSORS AND ASSIGNS. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of each Purchaser. Any Purchaser may assign any or all of its rights under this Agreement to any Person to whom such Purchaser assigns or transfers any Securities, provided (a) such transferee agrees in writing to be bound, with respect to the transferred Securities, by the provisions hereof that apply to the "Purchasers," and (b) such transferee provide the representations and warranties, as of the date of transfer, set forth in Section 3.2, and (c) such Purchaser delivers to the Company an opinion of counsel reasonably satisfactory to the Company, that such transfer is not subject to, or made pursuant to an exemption from, the registration requirements of the Securities Act and applicable state securities laws.

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5.7 NO THIRD-PARTY BENEFICIARIES. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Section 4.9.

5.8 GOVERNING LAW. All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. The parties hereby waive all rights to a trial by jury. If either party shall commence an action or proceeding to enforce any provisions of the Transaction Documents, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

5.9 SURVIVAL. The representations and warranties herein shall survive the Closing and delivery of the Shares and Warrant Shares.

5.10 EXECUTION. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile signature page were an original thereof.

5.11 SEVERABILITY. If any provision of this Agreement is held to be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Agreement shall not in any way be affected or impaired thereby and the parties will attempt to agree upon a valid and enforceable provision that is a reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Agreement.

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5.12 RESCISSION AND WITHDRAWAL RIGHT. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) the Transaction Documents, whenever any Purchaser exercises a right, election, demand or option under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then such Purchaser may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights.

5.13 REPLACEMENT OF SECURITIES. If any certificate or instrument evidencing any Securities is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof, or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction and customary and reasonable indemnity, if requested. The applicants for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs associated with the issuance of such replacement Securities.

5.14 REMEDIES. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of the Purchasers and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations described in the foregoing sentence and hereby agrees to waive in any action for specific performance of any such obligation the defense that a remedy at law would be adequate.

5.15 PAYMENT SET ASIDE. To the extent that the Company makes a payment or payments to any Purchaser pursuant to any Transaction Document or a Purchaser enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to the Company, a trustee, receiver or any other person under any law (including, without limitation, any bankruptcy law, state or federal law, common law or equitable cause of action), then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

5.16 INDEPENDENT NATURE OF PURCHASERS' OBLIGATIONS AND RIGHTS. The obligations of each Purchaser under any Transaction Document are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance of the obligations of any other Purchaser under any Transaction Document. Nothing contained herein or in any Transaction Document, and no action taken by any Purchaser pursuant thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Document. Each Purchaser shall be entitled to independently protect and enforce its rights, including without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Purchaser to be joined as an additional party in any proceeding for such purpose. Each Purchaser has been represented by its own separate legal counsel in their review and negotiation of the Transaction Documents. For reasons of administrative convenience only, Purchasers and their respective counsel have chosen to communicate with the Company through FW. FW does not represent all of the Purchasers but only HPC, who has acted as placement agent to the transaction. The Company has elected to provide all Purchasers with the same terms and Transaction Documents for the convenience of the Company and not because it was required or requested to do so by the Purchasers.

5.17 LIQUIDATED DAMAGES. The Company's obligations to pay any partial liquidated damages or other amounts owing under the Transaction Documents is a continuing obligation of the Company and shall not terminate until all unpaid partial liquidated damages and other amounts have been paid notwithstanding the fact that the instrument or security pursuant to which such partial liquidated damages or other amounts are due and payable shall have been canceled. Notwithstanding any provision herein or in the agreements contemplated hereby, the Company shall not be subject to liquidated damages or other penalties arising from the Company's failure to timely deliver certificates or opinions of counsel pursuant to this Agreement or the agreements contemplated hereby if such failure results from Force Majeure, PROVIDED, HOWEVER, the Company shall use best efforts to remedy or overcome such failures as promptly as possible.

(Signature Page Follows)

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

ADDRESS FOR NOTICE:  
-----

By: /S/ LOUIS CENTOFANTI  
-----

Name: Louis Centofanti  
Title: Chairman of the Board  
Chief Executive Officer

With a copy to (which shall not constitute notice):

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK  
SIGNATURE PAGES FOR PURCHASERS FOLLOW]

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[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

ALEXANDRA GLOBAL MASTER FUND LTD.  
By: ALEXANDRA INVESTMENT MANAGEMENT, LLC,  
As Investment Advisor

By: /S/ M. FILIMONOV  
-----

Name: Mikhail Filimonov  
Title: Chairman and Chief Executive Officer

Address for Notice of Investing Entity:

c/o Alexandra Investment Management, LLC  
767 Third Avenue, 39th Floor  
New York, NY 10017

Subscription Amount: \$1,687,500  
Shares: 750,000  
Warrant Shares: 262,500  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: ALPHA CAPITAL AG  
-----

Signature of Authorized Signatory of Investing Entity: /S/ K. ACKERMAN  
-----

Name of Authorized Signatory: Konrad Ackerman  
Title of Authorized Signatory: Director  
Email Address of Authorized Entity:  
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Address for Notice of Investing Entity:

Address for Delivery of Securities for Investing Entity (if not same as above):

Subscription Amount: \$350,000  
Shares: 155,556  
Warrant Shares: 54,444  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: Baystar Capital II, L.P.  
Signature of Authorized Signatory of Investing Entity: /s/ Steve Derby  
Name of Authorized Signatory: Steve Derby  
Title of Authorized Signatory: Managing Member  
Email Address of Authorized Entity:  
-----

Address for Notice of Investing Entity:  
c/o Baystar Capital Management, LLC  
53 Forest Avenue, Suite 203  
Old Greenwich, CT 06870

Address for Delivery of Securities for Investing Entity (if not same as above):

Subscription Amount: \$405,000  
Shares: 180,000  
Warrant Shares: 63,000  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: Bristol Investment Fund, Ltd.  
Signature of Authorized Signatory of Investing Entity: /s/ Paul Kessler  
Name of Authorized Signatory: Paul Kessler  
Title of Authorized Signatory: Director  
Email Address of Authorized Entity:  
-----

Address for Notice of Investing Entity:

Bristol Capital Advisors, LLC  
6363 Sunset Boulevard, Fifth Floor  
Hollywood, California 90028  
Attention: Amy Wang, Esq.

Address for Delivery of Securities for Investing Entity (if not same as above):

Subscription Amount: \$400,000  
Shares: 177,778  
Warrant Shares: 62,222  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: CRESCENT INTERNATIONAL LTD  
Signature of Authorized Signatory  
of Investing Entity: /s/ Mel Crow /s/ Maxi Brezzi  
Name of Authorized Signatory: Mel Crow Maxi Brezzi  
Title of Authorized Signatory: Authorized Signatory  
Email Address of Authorized Entity: \_\_\_\_\_

Address for Notice of Investing Entity:

Crescent International Ltd  
C/o GreenLight (Switzerland) SA  
84, av. Louis-Casai  
CH 1216 COINTRIN, Geneva Switzerland

Address for Delivery of Securities for Investing Entity (if not same as above):

Crescent International Ltd  
C/o GreenLight (Switzerland) SA  
84, av. Louis-Casai  
CH 1216 COINTRIN, Geneva Switzerland

Subscription Amount: \$675,000  
Shares: 300,000  
Warrant Shares: 105,000  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase

Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: Crestview Capital Master, LLC  
Signature of Authorized Signatory of Investing Entity: /s/ Stewart R. Flink  
Name of Authorized Signatory: Stewart R. Flink  
Title of Authorized Signatory: Manager  
Email Address of Authorized Entity: -----

Address for Notice of Investing Entity:

95 Revere Drive, Suite A  
Northbrook, Illinois 60062

Address for Delivery of Securities for Investing Entity (if not same as above):

Subscription Amount: \$1,500,003  
Shares: 666,668  
Warrant Shares: 233,334  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: Geduld Capital Partners LP  
Signature of Authorized Signatory of Investing Entity: /s/ Steven Geduld  
Name of Authorized Signatory: Steven Geduld  
Title of Authorized Signatory: President  
Email Address of Authorized Entity: -----

Address for Notice of Investing Entity:

19495 Biscayne Blvd. Suite 608  
Aventura, Fl. 33180

Address for Delivery of Securities for Investing Entity (if not same as above):

Grace Financial Group  
350 Old Country Rd. Suite 102  
Garden City, NY 11530

Subscription Amount: \$168,750  
Shares: 75,000  
Warrant Shares: 26,250  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: Gruber & McBaine International  
Signature of Authorized Signatory of Investing Entity: /s/ Jon D. Gruber  
Name of Authorized Signatory: Gruber & McBaine Capital Mgmt  
Title of Authorized Signatory: Investment Advisor  
Email Address of Authorized Entity:  
-----

Address for Notice of Investing Entity:

c/o Gruber & McBaine Capital Mgmt  
50 Osgood Pl - PH  
San Fransisco, CA 94133

Address for Delivery of Securities for Investing Entity (if not same as above):

Subscription Amount: \$249,999.75  
Shares: 111,111  
Warrant Shares: 38,889  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: Irwin Geduld Revocable Trust  
Signature of Authorized Signatory of Investing Entity: /s/ Irwin Geduld  
Name of Authorized Signatory: Irwin Geduld  
Title of Authorized Signatory:  
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Email Address of Authorized Entity:  
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Address for Notice of Investing Entity:

19495 Biscayne Blvd. Suite 608  
Aventura, Fl. 33180

Address for Delivery of Securities for Investing Entity (if not same as above):

Grace Financial Group  
350 Old Country Rd. Suite 102  
Garden City, NY 11530

Subscription Amount: \$112,500  
Shares: 50,000  
Warrant Shares: 17,500  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: J. Patterson McBaine  
Signature of Authorized Signatory of Investing Entity: /s/ J. Patterson McBaine  
Name of Authorized Signatory:  
Title of Authorized Signatory: Self  
Email Address of Authorized Entity:  
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Address for Notice of Investing Entity:

c/o Gruber & McBaine Capital Mgmt  
50 Osgood Pl - PH  
San Fransisco, CA 94133

Address for Delivery of Securities for Investing Entity (if not same as above):

Subscription Amount: \$99,999  
Shares: 44,444  
Warrant Shares: 15,555  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: Jon D. Gruber & Linda W. Gruber  
Signature of Authorized Signatory  
of Investing Entity: /s/ Jon D. Gruber /s/ Linda W. Gruber  
Name of Authorized Signatory:  
Title of Authorized Signatory: Self  
Email Address of Authorized Entity:  
-----

Address for Notice of Investing Entity:

c/o Gruber & McBaine Capital Mgmt  
50 Osgood Pl - PH  
San Fransisco, CA 94133

Address for Delivery of Securities for Investing Entity (if not same as above):

Subscription Amount: \$249,999.75



20 Reid Street  
Hamilton HM 11  
Bermuda

Mailing Address: Omicron Capital, L.P.  
810 Seventh Avenue, 39th Flr  
New York, NY 10019

Subscription Amount: \$500,000  
Shares: 222,222  
Warrant Shares: 77,778  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: PALISADES MASTER FUND, L.P.  
Signature of Authorized Signatory  
of Investing Entity: /s/ Palisades Master Fund, L.P.  
Name of Authorized Signatory: Discovery Management Limited  
Title of Authorized Signatory: Authorized Signatory  
Email Address of Authorized Entity:  
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Address for Notice of Investing Entity:

200 Mansell Court East  
Ste 550  
Roswell, Ga 30076  
Attn: Paul T. Mannion, Jr.

Address for Delivery of Securities for Investing Entity (if not same as above):

Subscription Amount: \$3,037,500  
Shares: 1,350,000  
Warrant Shares: 472,500  
EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

[PURCHASER SIGNATURE PAGES TO PESI SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Investing Entity: Stonestreet LP  
Signature of Authorized Signatory of Investing Entity: /s/ M. Finkelstein

Name of Authorized Signatory: Michael Finkelstein  
Title of Authorized Signatory: President  
Email Address of Authorized Entity:

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Address for Notice of Investing Entity:

260 Towne Centre Blvd  
Suite 201  
Markham, Ontario L3R8H8

Address for Delivery of Securities for Investing Entity (if not same as above):

c/o Canaccord Capital  
320 Bay St. Suite 1300  
Toronto, Ont. M5H4A6

Subscription Amount: \$350,000

Shares: 155,556

Warrant Shares: 54,444

EIN Number: [PROVIDE THIS UNDER SEPARATE COVER]

[SIGNATURE PAGES CONTINUE]

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "AGREEMENT") is made and entered into as of March 16, 2004, by and among Perma-Fix Environmental Services, Inc., a Delaware corporation (the "COMPANY"), and the purchasers signatory hereto (each such purchaser, a "PURCHASER" and collectively, the "PURCHASERS").

This Agreement is made pursuant to the Securities Purchase Agreement, dated as of the date hereof among the Company and the Purchasers (the "PURCHASE AGREEMENT").

The Company and the Purchasers hereby agree as follows:

1. DEFINITIONS. This Agreement shall be subject to, and the capitalized terms used and not otherwise defined herein that are defined in the Purchase Agreement shall have the meanings given such terms in, the Purchase Agreement. As used in this Agreement, the following terms shall have the following meanings:

"ADVICE" shall have the meaning set forth in Section 6(d).

"EFFECTIVENESS DATE" means, with respect to the Registration Statement required to be filed hereunder, the earlier of (a) the 120th calendar day following the date of the Purchase Agreement, and (b) the seventh (7th) Trading Day following the date on which the Company is notified by the Commission that the Registration Statement will not be reviewed or is no longer subject to further review and comments.

"EFFECTIVENESS PERIOD" shall have the meaning set forth in Section 2(a).

"EVENT" shall have the meaning set forth in Section 2(b).

"EVENT DATE" shall have the meaning set forth in Section 2(b).

"FILING DATE" means, with respect to the Registration Statement required to be filed hereunder, the 45th calendar day following the date of the Purchase Agreement.

"HOLDER" or "HOLDERS" means the holder or holders, as the case may be, from time to time of Registrable Securities.

"INDEMNIFIED PARTY" shall have the meaning set forth in Section 5(c).

"INDEMNIFYING PARTY" shall have the meaning set forth in Section 5(c).

"LOSSES" shall have the meaning set forth in Section 5(a).

"PROCEEDING" means an action, claim, suit, investigation or proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened.

"PROSPECTUS" means the prospectus included in the Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated under the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by the Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

"REGISTRABLE SECURITIES" means all of the Shares and the Warrant Shares, together with any shares of Common Stock issued or issuable upon any stock split, dividend or other distribution, recapitalization or similar event with respect to the foregoing.

"REGISTRATION STATEMENT" means the registration statements required to be filed hereunder, including (in each case) the Prospectus, amendments and supplements to the registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in the registration statement.

"RULE 144(K)" means paragraph (k) of Rule 144 promulgated by the Commission pursuant to the Securities Act, as such rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such rule.

"RULE 415" means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"RULE 424" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

## 2. REGISTRATION.

(a) On or prior to the Filing Date, the Company shall prepare and file with the Commission the Registration Statement covering the resale of all of the Registrable Securities for an offering to be made on a continuous basis pursuant to Rule 415. The Registration Statement required hereunder shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case the Registration shall be on another appropriate form in accordance herewith). The Registration Statement required hereunder shall contain (except if otherwise directed by the Holders) substantially the "PLAN OF DISTRIBUTION" attached hereto as ANNEX A, as may be amended pursuant to the comments from the Commission or as required under applicable rules and regulation of the Commission or the National Association of Securities Dealers, Inc. Subject to the terms of this Agreement, the Company shall use its best efforts to cause the Registration Statement to be declared effective under the Securities Act as promptly as possible after the filing thereof, but in any event not later than the Effectiveness Date, and shall use its best efforts to keep the Registration Statement continuously effective under the Securities Act until the date when all Registrable Securities covered by the Registration Statement have been sold or may be sold without volume restrictions pursuant to Rule 144(k) as determined by the counsel to the Company pursuant to a written opinion letter to such effect, addressed and acceptable to the Company's transfer agent and the affected Holders (the "EFFECTIVENESS PERIOD").

(b) If: (i) a Registration Statement is not filed on or prior to the Filing Date (if the Company files a Registration Statement without affording the Holder the opportunity to review and comment on the same as required by Section 3(a), the Company shall not be deemed to have satisfied this clause (i)), or (ii) the Company fails to file with the Commission a request for acceleration in accordance with Rule 461 promulgated under the Securities Act, within seven Trading Days of the date that the Company is notified (orally or in writing, whichever is earlier) by the Commission that a Registration Statement will not be "reviewed," or is not subject to further review, or (iii) [INTENTIONALLY OMITTED], or (iv) a Registration Statement filed or required to be filed hereunder is not declared effective by the Commission on or before the Effectiveness Date, or (v) if the Registrable Securities are not eligible to be sold pursuant to Rule 144(k), after a Registration Statement is first declared effective by the Commission, it ceases for any reason to remain continuously effective as to all Registrable Securities for which it is required to be effective, or the Holders are not permitted to utilize the Prospectus therein to resell such Registrable Securities, for in any such case 20 calendar consecutive days but no more than an aggregate of 25 calendar days during any 12 month period (which need not be consecutive Trading Days) (any such failure or breach being referred to as an "EVENT," and for purposes of clause (i) or (iv) the date on which such Event occurs, or for purposes of clause (ii) the date on which such five Trading Day period is exceeded, or for purposes of clause (iii) the date which such 20 calendar days is exceeded, or for purposes of clause (v) the date on which such 20 or 25 calendar day period, as applicable, is exceeded being referred to as "EVENT DATE"), then in addition to any other rights the Holders may have hereunder or under applicable law: (x) on each such Event Date the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty, equal to 1.0% of the aggregate purchase price paid by such Holder pursuant to the Purchase Agreement for any Registrable Securities then held by such Holder; and (y) on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty, equal to 1.5% of the aggregate purchase price paid by such Holder pursuant to the Purchase Agreement for any Registrable Securities then held by such Holder. If the Company fails to pay any partial liquidated damages pursuant to this Section in full within seven days after the date payable, the Company will pay interest thereon at a rate of 12% per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Holder, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full. The partial liquidated damages pursuant to the terms hereof shall apply on a daily pro-rata basis for any portion of a month prior to the cure of an Event.

### 3. REGISTRATION PROCEDURES

In connection with the Company's registration obligations hereunder, the Company shall:

(a) Not less than five Trading Days prior to the filing of the Registration Statement or any related Prospectus or any amendment or supplement thereto, the Company shall, (i) furnish to the Holders copies

of all such documents proposed to be filed (including documents incorporated or deemed incorporated by reference to the extent requested by such Person) which documents will be subject to the review of such Holders, and (ii) cause its officers and directors, counsel and independent certified public accountants to respond to such inquiries as shall be necessary, in the reasonable opinion of respective counsel to conduct a reasonable investigation within the meaning of the Securities Act. The Company shall not file the Registration Statement or any such Prospectus or any amendments or supplements thereto to which the Holders of a majority of the Registrable Securities shall reasonably object in good faith, provided that the Company is notified of such objection in writing no later than 5 Trading Days after the Holders have been so furnished copies of such documents, provided that such objection will extend the Filing Date and the Effectiveness Date by the number of days from the date of such objection to the date such objection is withdrawn.

(b) (i) Prepare and file with the Commission such amendments, including post-effective amendments, to the Registration Statement and the Prospectus used in connection therewith as may be necessary to keep the Registration Statement continuously effective as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities; (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement, and as so supplemented or amended to be filed pursuant to Rule 424; (iii) respond as promptly as reasonably possible to any comments received from the Commission with respect to the Registration Statement or any amendment thereto and, as promptly as reasonably possible, upon request, provide the Holders true and complete copies of all correspondence from and to the Commission relating to the Registration Statement, except to the extent such correspondence may contain material non-public information; and (iv) comply in all material respects with the provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by the Registration Statement during the applicable period in accordance with the intended methods of disposition by the Holders thereof set forth in the Registration Statement as so amended or in such Prospectus as so supplemented.

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(c) Notify the Holders of Registrable Securities to be sold as promptly as reasonably possible and (if requested by any such Person) confirm such notice in writing promptly following the day (i) (A) when a Prospectus or any Prospectus supplement or post-effective amendment to the Registration Statement is proposed to be filed; (B) when the Commission notifies the Company whether there will be a "review" of the Registration Statement and whenever the Commission comments in writing on the Registration Statement (the Company shall upon request provide true and complete copies thereof and all written responses thereto to each of the Holders); and (C) with respect to the Registration Statement or any post-effective amendment, when the same has become effective; (ii) of any request by the Commission or any other Federal or state governmental authority during the period of effectiveness of the Registration Statement for amendments or supplements to the Registration Statement or Prospectus or for additional information; (iii) of the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose; (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such

purpose; and (v) of the occurrence of any event or passage of time that makes the financial statements included in the Registration Statement ineligible for inclusion therein or any statement made in the Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to the Registration Statement, Prospectus or other documents so that, in the case of the Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(d) Use commercially reasonable efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order suspending the effectiveness of the Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at the earliest practicable moment.

(e) Furnish to each Holder, without charge, at least one conformed copy of the Registration Statement and each amendment thereto, including financial statements and schedules, all documents incorporated or deemed to be incorporated therein by reference to the extent requested by such Person, and all exhibits to the extent requested by such Person (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission.

(f) Promptly deliver to each Holder, without charge, as many copies of the Prospectus or Prospectuses (including each form of prospectus) and each amendment or supplement thereto as such Persons may reasonably request in connection with resales by the Holder of Registrable Securities. Subject to the terms of this Agreement, the Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto, except after the giving on any notice pursuant to Section 3(c).

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(g) Prior to any resale of Registrable Securities by a Holder, use its commercially reasonable efforts to register or qualify or cooperate with the selling Holders in connection with the registration or qualification (or exemption from the Registration or qualification) of such Registrable Securities for the resale by the Holder under the securities or Blue Sky laws of such jurisdictions within the United States as any Holder reasonably requests in writing, to keep the Registration or qualification (or exemption therefrom) effective during the Effectiveness Period (unless the transfer of such Registrable Securities are eligible for an exception from such Registration or qualification) and to do any and all other acts or things reasonably necessary to enable the disposition in such jurisdictions of the Registrable Securities covered by the Registration Statement; PROVIDED, that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified, subject the Company to any material tax in any such jurisdiction where it is not then so subject or file a general consent to service of process in any such jurisdiction.

(h) If requested by the Holders, cooperate with the Holders to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be delivered to a transferee pursuant to the Registration Statement, which certificates shall be free,

to the extent permitted by the Purchase Agreement, of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Holders may request.

(i) Upon the occurrence of any event contemplated by Section 3(c)(v), as promptly as reasonably possible, prepare a supplement or amendment, including a post-effective amendment, to the Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither the Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Company notifies the Holders in accordance with clauses (ii) through (v) of Section 3(c) above to suspend the use of any Prospectus until the requisite changes to such Prospectus have been made, then the Holders shall suspend use of such Prospectus. The Company will use its best efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable. The Company shall be entitled to exercise its right under this Section 3(i) to suspend the availability of a Registration Statement and Prospectus, subject to the payment of liquidated damages pursuant to Section 2(b), for a period not to exceed 60 days (which need not be consecutive days) in any 12 month period.

(j) Comply in all material respects with all applicable rules and regulations of the Commission.

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(k) The Company may require each selling Holder to furnish to the Company a certified statement as to the number of shares of Common Stock beneficially owned by such Holder and, if required by the Commission, the person thereof that has voting and dispositive control over the Shares. During any periods that the Company is unable to meet its obligations hereunder with respect to the registration of the Registrable Securities solely because any Holder fails to furnish such information within three Trading Days of the Company's request, any liquidated damages that are accruing at such time as to such Holder only shall be tolled and any Event that may otherwise occur solely because of such delay shall be suspended as to such Holder only, until such information is delivered to the Company. If the Company is unable to meet its obligations hereunder with respect to the registration of the Registrable Securities held by a Holder solely because such Holder fails to furnish such information prior to the later of 3 Trading Days of the Company's request for such information and the Trading Day prior to the date the Registration Statement is filed, the Company may exclude such Holder's Registrable Securities from the Registration Statement provided if such information is later provided by the Holder, the Company shall use commercially reasonable efforts to register such Registrable Securities on the earliest possible date.

4. REGISTRATION EXPENSES. All fees and expenses incident to the performance of or compliance with this Agreement by the Company shall be borne by the Company whether or not any Registrable Securities are sold pursuant to the Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses (A) with respect to filings required to be made with the Trading Market on which the Common Stock is then listed for trading, and (B) in compliance with applicable state securities or Blue Sky laws), (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities and of printing prospectuses if the printing of prospectuses is reasonably requested by the holders of a

majority of the Registrable Securities included in the Registration Statement), (iii) messenger, telephone and delivery expenses, (iv) fees and disbursements of counsel for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, and (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder. In no event shall the Company be responsible for any broker or similar commissions or, except to the extent specifically provided for in the Transaction Documents, any legal fees or other costs of the Holders.

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## 5. INDEMNIFICATION

(a) INDEMNIFICATION BY THE COMPANY. The Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Holder, the officers, directors, agents and employees of each of them, each Person who controls any such Holder (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, agents and employees of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, costs (including, without limitation, reasonable attorneys' fees) and expenses (collectively, "LOSSES"), as incurred, arising out of or relating to any untrue or alleged untrue statement of a material fact contained in the Registration Statement, any Prospectus or any form of prospectus or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or form of prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading, except to the extent, but only to the extent, that (i) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was reviewed and expressly approved in writing by such Holder expressly for use in the Registration Statement, such Prospectus or such form of Prospectus or in any amendment or supplement thereto (it being understood that the Holder has approved Annex A hereto for this purpose) or (ii) in the case of an occurrence of an event of the type specified in Section 3(c)(ii)-(v), the use by such Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Holder of the Advice contemplated in Section 6(d). The Company shall notify the Holders promptly of the institution, threat or assertion of any Proceeding of which the Company is aware in connection with the transactions contemplated by this Agreement.

(b) INDEMNIFICATION BY HOLDERS. Each Holder shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, to the extent arising out of or based

solely upon: (x) such Holder's failure to comply with the prospectus delivery requirements of the Securities Act or (y) any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, or any form of prospectus, or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading (i) to the extent, but only to the extent, that such untrue statement or omission is contained in any information so furnished in writing by such Holder to the Company specifically for inclusion in the Registration Statement or such Prospectus or (ii) to the extent that (1) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was reviewed and expressly approved in writing by such Holder expressly for use in the Registration Statement (it being understood that the Holder has approved Annex A hereto for this purpose), such Prospectus or such form of Prospectus or in any amendment or supplement thereto or (2) in the case of an occurrence of an event of the type specified in Section 3(c)(ii)-(v), the use by such Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Holder of the Advice contemplated in Section 6(d). In no event shall the liability of any selling Holder hereunder be greater in amount than the dollar amount of the net proceeds received by such Holder upon the sale of the Registrable Securities giving rise to such indemnification obligation.

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(c) CONDUCT OF INDEMNIFICATION PROCEEDINGS. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "INDEMNIFIED PARTY"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "INDEMNIFYING PARTY") in writing, and the Indemnifying Party shall have the right to assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all fees and expenses incurred in connection with defense thereof; provided, that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have prejudiced the Indemnifying Party.

An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses; (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding; or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and such Indemnified Party shall reasonably believe, based on the written advice, reasonably acceptable to the Company, of their counsel that a material conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and the reasonable

fees and expenses of one separate counsel for all Indemnified Parties shall be at the expense of the Indemnifying Party). The Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding.

Subject to the terms of this Agreement, all reasonable fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within ten Trading Days of written notice thereof to the Indemnifying Party; PROVIDED, that the Indemnified Party shall promptly reimburse the Indemnifying Party for that portion of such fees and expenses applicable to such actions for which such Indemnified Party is not entitled to indemnification hereunder, determined based upon the relative faults of the parties.

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(d) CONTRIBUTION. If a claim for indemnification under Section 5(a) or 5(b) is unavailable to an Indemnified Party (by reason of public policy or otherwise), then each Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Losses, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in this Agreement, any reasonable attorneys' or other reasonable fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. Notwithstanding the provisions of this Section 5(d), no Holder shall be required to contribute, in the aggregate, any amount in excess of the amount by which the proceeds actually received by such Holder from the sale of the Registrable Securities subject to the Proceeding exceeds the amount of any damages that such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission, except in the case of fraud by such Holder.

The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to

the Indemnified Parties.

## 6. MISCELLANEOUS

(a) REMEDIES. In the event of a breach by the Company or by a Holder, of any of their obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, will be entitled to specific performance of its rights under this Agreement. The Company and each Holder agree that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and hereby further agrees that, in the event of any action for specific performance in respect of such breach, it shall waive the defense that a remedy at law would be adequate.

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(b) NO PIGGYBACK ON REGISTRATIONS. Except as set forth on SCHEDULE 6(B) attached hereto, neither the Company nor any of its security holders (other than the Holders in such capacity pursuant hereto) may include securities of the Company in a Registration Statement other than the Registrable Securities. Subject to SCHEDULE 6(B), no Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company. Subject to SCHEDULE 6(B), the Company shall not file any other registration statement until after the Effective Date.

(c) COMPLIANCE. Each Holder covenants and agrees that it will comply with the prospectus delivery requirements of the Securities Act as applicable to it in connection with sales of Registrable Securities pursuant to the Registration Statement.

(d) DISCONTINUED DISPOSITION. Each Holder agrees by its acquisition of such Registrable Securities that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3(c), such Holder will forthwith discontinue disposition of such Registrable Securities under the Registration Statement until such Holder's receipt of the copies of the supplemented Prospectus and/or amended Registration Statement or until it is advised in writing (the "ADVICE") by the Company that the use of the applicable Prospectus may be resumed, and, in either case, has received copies of any additional or supplemental filings that are incorporated or deemed to be incorporated by reference in such Prospectus or Registration Statement. The Company will use its best efforts to ensure that the use of the Prospectus may be resumed as promptly as it practicable. The Company agrees and acknowledges that any periods during which the Holder is required to discontinue the disposition of the Registrable Securities hereunder shall be subject to the provisions of Section 2(b).

(e) PIGGY-BACK REGISTRATIONS. If at any time during the Effectiveness Period there is not an effective Registration Statement covering all of the Registrable Securities and the Company shall determine to prepare and file with the Commission a registration statement relating to an offering for its own account or the account of others under the Securities Act of any of its equity securities, other than on Form S-4 or Form S-8 (each as promulgated under the Securities Act) or their then equivalents relating to equity securities to be issued solely in connection with any acquisition of any entity or business or equity securities issuable in connection with the stock option or other employee benefit plans, then the Company shall send to each Holder a written notice of such determination and, if within fifteen days after the date of such notice, any such Holder shall so request in writing, the Company shall

include in such registration statement all or any part of such Registrable Securities as such Holder requests to be registered, subject to customary underwriter cutbacks applicable to all holders of registration rights, which will provide that upon a cut-back of the securities to be included in such registration statement, the securities held by all holders of registration rights will be cut-back before any securities to be sold by the Company are cut-back.

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(f) AMENDMENTS AND WAIVERS. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the same shall be in writing and signed by the Company and each Holder of the then outstanding Registrable Securities.

(g) NOTICES. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be made in accordance with the provisions of the Purchase Agreement.

(h) SUCCESSORS AND ASSIGNS. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties and shall inure to the benefit of each Holder. Each Holder may assign their respective rights hereunder in the manner and to the Persons as permitted under the Purchase Agreement.

(i) EXECUTION AND COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and, all of which taken together shall constitute one and the same Agreement. In the event that any signature is delivered by facsimile transmission, such signature shall create a valid binding obligation of the party executing (or on whose behalf such signature is executed) the same with the same force and effect as if such facsimile signature were the original thereof.

(j) GOVERNING LAW. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be determined with the provisions of the Purchase Agreement.

(k) CUMULATIVE REMEDIES. The remedies provided herein are cumulative and not exclusive of any remedies provided by law.

(l) SEVERABILITY. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(m) HEADINGS. The headings in this Agreement are for convenience of reference only and shall not limit or otherwise affect the meaning hereof.

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(n) INDEPENDENT NATURE OF PURCHASERS' OBLIGATIONS AND RIGHTS. The obligations of each Holder hereunder are several and not joint with the obligations of any other Holder hereunder, and no Holder shall be responsible in any way for the performance of the obligations of any other Holder hereunder. Nothing contained herein or in any other agreement or document delivered at any closing, and no action taken by any Holder pursuant hereto or thereto, shall be deemed to constitute the Holders as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Holders are in any way acting in concert with respect to such obligations or the transactions contemplated by this Agreement. Each Holder shall be entitled to protect and enforce its rights, including without limitation the rights arising out of this Agreement, and it shall not be necessary for any other Holder to be joined as an additional party in any proceeding for such purpose.

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IN WITNESS WHEREOF, the parties have executed this Registration Rights Agreement as of the date first written above.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

By: /S/ LOUIS CENTOFANTI

-----  
Name: Louis Centofanti  
Title: Chairman of the Board  
Chief Executive Officer

[SIGNATURE PAGE OF HOLDERS FOLLOWS]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

ALEXANDRA GLOBAL MASTER FUND LTD.  
By: ALEXANDRA INVESTMENT MANAGEMENT, LLC,  
As Investment Advisor

By: /S/ M. FILIMONOV

-----  
Name: Mikhail Filimonov  
Title: Chairman and Chief Executive Officer

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: ALPHA CAPITAL AG

-----  
Signature of Authorized Signatory of Investing Entity: /S/ K. ACKERMAN

-----  
Name of Authorized Signatory: Konrad Ackerman  
Title of Authorized Signatory: Director

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Baystar Capital II, L.P.  
Signature of Authorized Signatory of Investing Entity: /s/ Steve Derby  
Name of Authorized Signatory: Steve Derby  
Title of Authorized Signatory: Managing Member

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Bristol Investment Fund, Ltd.  
Signature of Authorized Signatory of Investing Entity: /s/ Paul Kessler  
Name of Authorized Signatory: Paul Kessler  
Title of Authorized Signatory: Director

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: CRESCENT INTERNATIONAL LTD  
Signature of Authorized Signatory  
of Investing Entity: /s/ Mel Crow /s/ Maxi Brezzi  
Name of Authorized Signatory: Mel Crow Maxi Brezzi  
Title of Authorized Signatory: Authorized Signatory

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Crestview Capital Master, LLC  
Signature of Authorized Signatory of Investing Entity: /s/ Stewart R. Flink  
Name of Authorized Signatory: Stewart R. Flink  
Title of Authorized Signatory: Manager

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Geduld Capital Partners LP  
Signature of Authorized Signatory of Investing Entity: /s/ Steven Geduld  
Name of Authorized Signatory: Steven Geduld

Title of Authorized Signatory: President

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Gruber & McBaine International  
Signature of Authorized Signatory of Investing Entity: /s/ Jon D. Gruber  
Name of Authorized Signatory: Gruber & McBaine Capital Mgmt  
Title of Authorized Signatory: Investment Advisor

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Irwin Geduld Revocable Trust  
Signature of Authorized Signatory of Investing Entity: /s/ Irwin Geduld  
Name of Authorized Signatory: Irwin Geduld  
Title of Authorized Signatory: Trustee

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: J. Patterson McBaine  
Signature of Authorized Signatory of Investing Entity: /s/ J. Patterson McBaine  
Name of Authorized Signatory:  
Title of Authorized Signatory: Self

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Jon D. Gruber & Linda W. Gruber  
Signature of Authorized Signatory  
of Investing Entity: /s/ Jon D. Gruber /s/ Linda W. Gruber  
Name of Authorized Signatory:  
Title of Authorized Signatory: Self

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Lagunitas Partners LP  
Signature of Authorized Signatory of Investing Entity: /s/ Jon D. Gruber  
Name of Authorized Signatory: Gruber & McBaine Capital Mgmt  
Title of Authorized Signatory: General Partner

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

OMICRON MASTER TRUST  
By: Omicron Capital L.P., as advisor  
By: Omicron Capital Inc., its general partner

By: /S/ BRUCE BERNSTEIN

-----  
Name: Bruce Bernstein  
Title: Managing Partner

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: PALISADES MASTER FUND, L.P.  
Signature of Authorized Signatory  
of Investing Entity: /s/ Palisades Master Fund, L.P.  
Name of Authorized Signatory: Discovery Management Limited  
Title of Authorized Signatory: Authorized Signatory

[SIGNATURE PAGES CONTINUE]

[PURCHASER'S SIGNATURE PAGE TO PESI RRA]

Name of Investing Entity: Stonestreet LP  
Signature of Authorized Signatory of Investing Entity: /s/ M. Finkelstein  
Name of Authorized Signatory: Michael Finkelstein  
Title of Authorized Signatory: President

[SIGNATURE PAGES CONTINUE]

ANNEX A

PLAN OF DISTRIBUTION

The Selling Stockholders (the "SELLING STOCKHOLDERS") of the common stock ("COMMON STOCK") of Perma-Fix Environmental Services, Inc. (the "COMPANY") and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of Common Stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The Selling Stockholders may use any one or more of the following methods when selling shares:

- o ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- o block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- o purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- o an exchange distribution in accordance with the rules of the applicable exchange;
- o privately negotiated transactions;
- o settlement of short sales;
- o broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares at a stipulated price per share;
- o a combination of any such methods of sale;
- o through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise; or
- o any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell shares under Rule 144 under the Securities Act of 1933, as amended (the "SECURITIES ACT"), if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. Each Selling Stockholder does not expect these commissions and discounts relating to its sales of shares to exceed what is customary in the types of transactions involved.

In connection with the sale of our common stock or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The Selling Stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any agreement or understanding, directly or indirectly, with any person to distribute the Common Stock.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the shares. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because Selling Stockholders may be deemed to be "underwriters" within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. Each Selling Stockholder has advised us that they have not entered into any agreements, understandings or arrangements with any underwriter or broker-dealer regarding the sale of the resale shares. There is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the Selling Stockholders.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the shares may be resold by the Selling Stockholders without registration and without regard to any volume limitations by reason of Rule 144(k) under the Securities Act or any other rule of similar effect or (ii) all of the shares have been sold pursuant to the prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

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Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to our common stock for a period of two business days prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of our common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale.

NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR REASONABLY ACCEPTABLE TO THE COMPANY TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY. THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT.

## COMMON STOCK PURCHASE WARRANT

To Purchase 262,500 Shares of Common Stock of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

THIS COMMON STOCK PURCHASE WARRANT (the "WARRANT") CERTIFIES that, for value received, Alexandra Global Master Fund Ltd. (the "HOLDER"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date of issuance of this Warrant (the "INITIAL EXERCISE DATE") and on or prior to the third anniversary of the Initial Exercise Date (the "TERMINATION DATE") but not thereafter, to subscribe for and purchase from Perma-Fix Environmental Services, Inc., a Delaware corporation (the "COMPANY"), up to 262,500 shares (the "WARRANT SHARES") of Common Stock, par value \$0.001 per share, of the Company (the "COMMON STOCK"). The purchase price of one share of Common Stock (the "EXERCISE PRICE") under this Warrant shall be \$2.92, Subject to adjustment hereunder. The Exercise Price and the number of Warrant Shares for which the Warrant is exercisable shall be subject to adjustment as provided herein. THIS WARRANT SHALL BE SUBJECT TO, AND THE CAPITALIZED TERMS USED AND NOT OTHERWISE DEFINED HEREIN SHALL HAVE THE MEANINGS SET FORTH IN, THAT CERTAIN SECURITIES PURCHASE AGREEMENT (THE "PURCHASE AGREEMENT"), DATED MARCH 16, 2004, AMONG THE COMPANY AND THE PURCHASERS SIGNATORY THERETO.

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1. TITLE TO WARRANT. Prior to the Termination Date and subject to compliance with applicable laws and Section 7 of this Warrant, this Warrant and all rights hereunder are transferable, in whole or in part, at the office or agency of the Company by the Holder in person or by duly authorized attorney, upon surrender of this Warrant together with the Assignment Form annexed hereto properly endorsed. The transferee shall sign an investment letter in form and substance reasonably satisfactory to the Company.

2. AUTHORIZATION OF SHARES. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

### 3. EXERCISE OF WARRANT.

(a) Exercise of the purchase rights represented by this Warrant may be made at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy of the Notice of Exercise Form annexed hereto (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company); PROVIDED, HOWEVER, within 5 Trading Days of the date said Notice of Exercise is delivered to the Company, the Holder shall have surrendered this Warrant to the Company and the Company shall have received payment of the aggregate Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank. Certificates for shares purchased hereunder shall be delivered to the Holder within the earlier of (i) 7 Trading Days after the date on which the Notice of Exercise shall have been delivered by facsimile copy or (ii) 5 Trading Days from the delivery to the Company of the Notice of Exercise Form by facsimile copy, surrender of this Warrant and payment of the aggregate Exercise Price as set forth above ("WARRANT SHARE DELIVERY DATE"); PROVIDED, HOWEVER, in the event the Warrant is not surrendered or the aggregate Exercise Price is not received by the Company within 7 Trading Days after the date on which the Notice of Exercise shall be delivered by facsimile copy, the Warrant Share Delivery Date shall be extended to the extent such 7 Trading Day period is exceeded. This Warrant shall be deemed to have been exercised on the later of the date the Notice of Exercise is delivered to the Company by facsimile copy and the date the Exercise Price is received by the Company. The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised by payment to the Company of the Exercise Price and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid. If the Company fails to deliver to the Holder a certificate or certificates representing the Warrant Shares pursuant to this Section 3(a) by the seventh Trading Day following the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

In addition to any other rights available to the Holder, if the Company fails to deliver to the Holder a certificate or certificates representing the Warrant Shares pursuant to an exercise by the seventh Trading Day after the Warrant Share Delivery Date, and if after such day the Holder is required by its broker to purchase (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "BUY-IN"), then the Company shall (1) pay in cash to the Holder the amount by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (A) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (B) the price at which the sell order giving rise to such purchase obligation was executed, and (2) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an

aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (1) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In, together with applicable confirmations and other evidence reasonably requested by the Company. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

(b) If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(c) The Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 3(a) or otherwise, to the extent that after giving effect to such issuance after exercise, the Holder (together with the Holder's affiliates), as set forth on the applicable Notice of Exercise, would beneficially own in excess of 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to such issuance. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (A) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its affiliates and (B) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Warrants)

subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its affiliates. Except as set forth in the preceding sentence, for purposes of this Section 3(c), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act, it being acknowledged by Holder that the Company is not representing to Holder that such calculation is in compliance with Section 13(d) of the Exchange Act, and Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 3(c) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of such Holder, and the submission of a Notice of Exercise shall be deemed to be such Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. For purposes of this Section 3(c), in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company's most recent Form 10-Q or Form 10-K, as the case may be, (y) a more recent public announcement by the

Company or (z) any other notice by the Company or the Company's Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of the Holder, the Company shall within 3 Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its affiliates since the date as of which such number of outstanding shares of Common Stock was reported.

(d) If at any time after one year from the date of issuance of this Warrant (a) there is no effective Registration Statement registering the resale of the Warrant Shares by the Holder at such time and (b) the Warrant Shares are not eligible to be sold pursuant to Rule 144(k) promulgated by the Commission pursuant to the Securities Act, as such rule may be amended from time to time or any similar rule or hereafter adopted by the Commission, then this Warrant may also be exercised at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing  $[(A-B) (X)]$  by (A), where:

(A) = the Closing Price on the Trading Day immediately preceding the date of such election;

(B) = the Exercise Price of this Warrant, as adjusted; and

(X) = the number of Warrant Shares issuable upon exercise of this Warrant in accordance with the terms of this Warrant by means of a cash exercise rather than a cashless exercise.

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(e) Subject to the provisions of this Section 3, if after the Effective Date, the Closing Price for each of twenty consecutive Trading Days (the "MEASUREMENT PERIOD", which period shall not have commenced until after the Effective Date) exceeds \$6.00 per share (the "THRESHOLD PRICE"), subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of the Purchase Agreement, then the Company may, within two Trading Days of such period, call for cancellation of all or any portion of this Warrant for which a Notice of Exercise has not yet been delivered (such right, a "CALL"). To exercise this right, the Company must deliver to the Holder an irrevocable written notice (a "CALL Notice"), indicating therein the portion of unexercised portion of this Warrant to which such notice applies. If the conditions set forth below for such Call are satisfied from the period from the date of the Call Notice through and including the Call Date (as defined below), then any portion of this Warrant subject to such Call Notice for which a Notice of Exercise shall not have been received from and after the date of the Call Notice will be cancelled at 6:30 p.m. (New York City time) on the tenth Trading Day after the date the Call Notice is received by the Holder (such date, the "CALL DATE"). Any unexercised portion of this Warrant to which the Call Notice does not pertain will be unaffected by such Call Notice. In furtherance thereof, the Company covenants and agrees that it will honor all Notices of Exercise with respect to Warrant Shares subject to a Call Notice that are tendered from the time of delivery of the Call Notice through 6:30 p.m. (New York City time) on the Call Date. The parties agree that any Notice of Exercise delivered following a Call Notice shall first reduce to zero the number of Warrant Shares subject to such Call Notice prior to reducing the remaining Warrant Shares available for purchase under this Warrant. For example, if (x) this Warrant then permits the Holder to acquire 100 Warrant Shares, (y) a Call Notice pertains to 75

Warrant Shares, and (z) prior to 6:30 p.m. (New York City time) on the Call Date the Holder tenders a Notice of Exercise in respect of 50 Warrant Shares, then (1) on the Call Date the right under this Warrant to acquire 25 Warrant Shares will be automatically cancelled, (2) the Company, in the time and manner required under this Warrant, will have issued and delivered to the Holder 50 Warrant Shares in respect of the exercises following receipt of the Call Notice, and (3) the Holder may, until the Termination Date, exercise this Warrant for 25 Warrant Shares (subject to adjustment as herein provided and subject to subsequent Call Notices). Subject again to the provisions of this Section 3(e), the Company may deliver subsequent Call Notices for any portion of this Warrant for which the Holder shall not have delivered a Notice of Exercise. Notwithstanding anything to the contrary set forth in this Warrant, the Company may not deliver a Call Notice or require the cancellation of this Warrant (and any Call Notice will be void), unless, from the beginning of the 20th consecutive Trading Days used to determine whether the Common Stock has achieved the Threshold Price through the Call Date, (i) the Company shall have honored in accordance with the terms of this Warrant all Notices of Exercise delivered by 6:30 p.m. (New York City time) on the Call Date, (ii) the Registration Statement shall be effective as to all Warrant Shares and the prospectus thereunder available for use by the Holder for the resale of all such Warrant Shares and (iii) the Common Stock shall be listed or quoted for trading on the Trading Market. The Company's right to Call the Warrant shall be exercised ratably among the Purchasers based on each Purchaser's initial purchase of Common Stock pursuant to the Purchase Agreement.

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4. NO FRACTIONAL SHARES OR SCRIP. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

5. CHARGES, TAXES AND EXPENSES. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; PROVIDED, HOWEVER, that in the event certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

6. CLOSING OF BOOKS. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

7. TRANSFER, DIVISION AND COMBINATION.

(a) Subject to compliance with any applicable securities laws and the conditions set forth in Sections 1 and 7(e) hereof and to the provisions of Section 4.1 of the Purchase Agreement, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds

sufficient to pay any transfer taxes payable upon the making of such transfer. Promptly following such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 7(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

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(c) The Company shall prepare, issue and deliver at its own expense (other than transfer taxes) the new Warrant or Warrants under this Section 7.

(d) The Company agrees to maintain, at its aforesaid office, books for the registration and the registration of transfer of the Warrants.

(e) If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws, the Company may require, as a condition of allowing such transfer (i) that the Holder or transferee of this Warrant, as the case may be, furnish to the Company a written opinion of counsel (which opinion shall be in form, substance and scope customary for opinions of counsel in comparable transactions) to the effect that such transfer may be made without registration under the Securities Act and under applicable state securities or blue sky laws, (ii) that the holder or transferee execute and deliver to the Company an investment letter in form and substance acceptable to the Company and (iii) that the transferee be an "accredited investor" as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7), or (a)(8) promulgated under the Securities Act or a qualified institutional buyer as defined in Rule 144A(a) under the Securities Act.

8. NO RIGHTS AS SHAREHOLDER UNTIL EXERCISE. This Warrant does not entitle the Holder to any voting rights or other rights as a shareholder of the Company prior to the exercise hereof. The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the close of business on the date the Warrant shall be deemed to have been exercised pursuant to Section 3 and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid.

9. LOSS, THEFT, DESTRUCTION OR MUTILATION OF WARRANT. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft, or destruction of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated,

the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

10. SATURDAYS, SUNDAYS, HOLIDAYS, ETC. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

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11. ADJUSTMENTS OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES; STOCK SPLITS, ETC. The number and kind of securities purchasable upon the exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time upon the happening of any of the following. In case the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock to holders of its outstanding Common Stock, (ii) subdivide its outstanding shares of Common Stock into a greater number of shares, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock, or (iv) issue any shares of its capital stock in a reclassification of the Common Stock, then the number of Warrant Shares purchasable upon exercise of this Warrant immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company which it would have owned or have been entitled to receive had such Warrant been exercised in advance thereof. Upon each such adjustment of the kind and number of Warrant Shares or other securities of the Company which are purchasable hereunder, the Holder shall thereafter be entitled to purchase the number of Warrant Shares or other securities resulting from such adjustment at an Exercise Price per Warrant Share or other security obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of Warrant Shares purchasable pursuant hereto immediately prior to such adjustment and dividing by the number of Warrant Shares or other securities of the Company that are purchasable pursuant hereto immediately after such adjustment. An adjustment made pursuant to this paragraph shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

12. REORGANIZATION, RECLASSIFICATION, MERGER, CONSOLIDATION OR DISPOSITION OF ASSETS. In case the Company shall reorganize its capital, reclassify its capital stock, consolidate or merge with or into another corporation (where the Company is not the surviving corporation or where there is a change in or distribution with respect to the Common Stock of the Company), or sell, transfer or otherwise dispose of its property, assets or business to another corporation and, pursuant to the terms of such reorganization, reclassification, merger, consolidation or disposition of assets, shares of common stock of the successor or acquiring corporation, or any cash, shares of stock or other securities or property of any nature whatsoever (including warrants or other subscription or purchase rights) in addition to or in lieu of common stock of the successor or acquiring corporation ("OTHER PROPERTY"), are to be received by or distributed to the holders of Common Stock of the Company, then the Holder shall have the right thereafter to receive, upon exercise of this Warrant, the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and Other Property receivable upon or as a result of such reorganization, reclassification, merger, consolidation or disposition of assets by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event. In case of any such reorganization, reclassification, merger, consolidation or disposition of assets, the successor or acquiring corporation (if other than the Company) shall expressly assume the due and punctual observance and performance of each and every covenant and condition of this Warrant to be performed and observed by

the Company and all the obligations and liabilities hereunder, subject to such modifications as may be deemed appropriate (as determined in good faith by resolution of the Board of Directors of the Company) in order to provide for adjustments of Warrant Shares for which this Warrant is exercisable which shall be as nearly equivalent as practicable to the adjustments provided for in this Section 12. For purposes of this Section 12, "common stock of the successor or acquiring corporation" shall include stock of such corporation of any class which is not preferred as to dividends or assets over any other class of stock of such corporation and which is not subject to redemption and shall also include any evidences of indebtedness, shares of stock or other securities which are convertible into or exchangeable for any such stock, either immediately or upon the arrival of a specified date or the happening of a specified event and any warrants or other rights to subscribe for or purchase any such stock. The foregoing provisions of this Section 12 shall similarly apply to successive reorganizations, reclassifications, mergers, consolidations or disposition of assets.

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13. VOLUNTARY ADJUSTMENT BY THE COMPANY. The Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

14. NOTICE OF ADJUSTMENT. Whenever the number of Warrant Shares or number or kind of securities or other property purchasable upon the exercise of this Warrant or the Exercise Price is adjusted, as herein provided, the Company shall give notice thereof to the Holder, which notice shall state the number of Warrant Shares (and other securities or property) purchasable upon the exercise of this Warrant and the Exercise Price of such Warrant Shares (and other securities or property) after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made.

15. NOTICE OF CORPORATE ACTION. If at any time:

(a) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

(b) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of all or substantially all the property, assets or business of the Company to, another corporation or,

(c) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to Holder (i) at least 10 days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 10 days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be

entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their Warrant Shares for securities or other property deliverable upon such disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to Holder at the last address of Holder appearing on the books of the Company and delivered in accordance with Section 17(d).

16. AUTHORIZED SHARES. The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed.

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

17. MISCELLANEOUS.

(a) JURISDICTION. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

(b) RESTRICTIONS. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

(c) NONWAIVER AND EXPENSES. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding all rights hereunder terminate on the Termination Date. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder (excluding any lost profits, incidental or consequential damages).

(d) NOTICES. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement.

(e) LIMITATION OF LIABILITY. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant or purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

(f) REMEDIES. Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.

(g) SUCCESSORS AND ASSIGNS. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

(h) AMENDMENT. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(i) SEVERABILITY. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(j) HEADINGS. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

\*\*\*\*\*

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: March 16, 2004

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

By: /s/ Louis Centofanti  
Name: Louis Centofanti  
Title: Chairman of the Board  
Chief Executive Officer

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NOTICE OF EXERCISE

To: Perma-Fix Environmental Services, Inc.

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 3(d), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 3(d).

(3) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

\_\_\_\_\_

The Warrant Shares shall be delivered to the following:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(4) ACCREDITED INVESTOR. The undersigned is an "accredited investor" as defined in Regulation D under the Securities Act of 1933, as amended.

[PURCHASER]

By: \_\_\_\_\_

Name:

Title:

Dated: \_\_\_\_\_

ASSIGNMENT FORM

(To assign the foregoing warrant, execute  
this form and supply required information.

Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby  
are hereby assigned to \_\_\_\_\_ whose  
address is \_\_\_\_\_.

\_\_\_\_\_

Dated: \_\_\_\_\_, \_\_\_\_\_

Holder's Signature: \_\_\_\_\_

Holder's Address: \_\_\_\_\_

\_\_\_\_\_

Signature Guaranteed: \_\_\_\_\_

NOTE: The signature to this Assignment Form must correspond with the name as it  
appears on the face of the Warrant, without alteration or enlargement or any  
change whatsoever, and must be guaranteed by a bank or trust company. Officers  
of corporations and those acting in a fiduciary or other representative capacity  
should file proper evidence of authority to assign the foregoing Warrant.

EXHIBIT 5.1

[CONNER & WINTERS LETTERHEAD]

ATTORNEYS & COUNSELORS AT LAW

Conner & Winters, P.C.  
1700 One Leadership Square  
211 North Robinson  
Oklahoma City, Oklahoma 73102 7101  
405-272-5711  
Fax 405-232-2695  
www.cwlaw.com

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Writer's Direct Number  
405-272-5750  
Writer's E-mail Address  
isteinhorn@cwlaw.com

April 30, 2004

Perma-Fix Environmental Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653

Re: Perma-Fix Environmental Services, Inc.;  
Form S-3 Registration Statement, covering 6,391,751 Shares  
of Common Stock; OUR FILE NO. 7034.2  
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Ladies and Gentlemen:

We have acted as special counsel to Perma-Fix Environmental Services, Inc. (the "Company") in connection with the preparation of the Form S-3 Registration Statement (the "Registration Statement") to be filed by the Company with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"). The Registration Statement includes 6,391,751 shares of the Company's common stock, par value \$.001 per share (the "Common Stock"), to be reoffered or resold from time to time by the Selling Stockholders (as defined in the Registration Statement).

The 6,391,751 shares of Common Stock included in the Registration Statement consist of the following:

- (a) 4,616,113 shares (the "Shares") that were issued by the Company to the following subscribers in the Company's private placement pursuant to the Securities Purchase Agreement, dated March 16, 2004 (the "Private Placement"):
  - o 750,000 shares issued to Alexandra Global Master Fund Ltd;
  - o 155,556 shares issued to Alpha Capital AG;

Perma-Fix Environmental Services, Inc.  
April 30, 2004  
Page 2

- o 180,000 shares issued to the Baystar Capital II, L.P.;
  - o 177,778 shares issued to Bristol Investment Fund, Ltd.;
  - o 300,000 shares issued to Crescent International Ltd;
  - o 666,668 shares issued to Crestview Capital Master LLC;
  - o 75,000 shares issued to Geduld Capital Partners LP;
  - o 111,111 shares issued to Gruber & McBaine International;
  - o 50,000 shares issued to Irwin Geduld Revocable Trust;
  - o 44,444 shares issued to J Patterson McBaine;
  - o 111,111 shares issued to Jon D. Gruber and Linda W. Gruber;
  - o 266,667 shares issued to Lagunitas Partners LP;
  - o 222,222 shares issued to Omicron Master Trust;
  - o 1,350,000 shares issued to Palisades Master Fund, L.P.;
  - o 155,556 shares issued to Stonestreet LP;
- (b) 1,615,638 shares (the "Warrant Shares") that are issuable by the Company upon the exercise of the following warrants (collectively, the "Warrants"), each having an exercise price of \$2.92 per share, issued to the subscribers in the Private Placement:
- o 262,500 shares issuable to Alexandra Global Master Fund, Ltd. under a warrant, dated March 16, 2004;
  - o 54,444 shares issuable to Alpha Capital AG under a warrant, dated March 16, 2004;
  - o 63,000 shares issuable to Baystar Capital II, L.P. under a warrant, dated March 16, 2004;
  - o 62,222 shares issuable to Bristol Investment Fund, Ltd. under a warrant, dated March 16, 2004;

- o 105,000 shares issuable to Crescent International Ltd under a warrant, dated March 16, 2004;
- o 233,334 shares issuable to Crestview Capital Master LLC under a warrant, dated March 16, 2004;
- o 26,250 shares issuable to the Geduld Capital Partners LP under a warrant, dated March 16, 2004;
- o 38,889 shares issuable to Gruber & McBaine International under a warrant, dated March 16, 2004;
- o 17,500 shares issuable to Irwin Geduld Revocable Trust under a

- warrant, dated March 16, 2004;
- o 15,555 shares issuable to J Patterson McBaine under a warrant, dated March 16, 2004;
  - o 38,889 shares issuable to Jon D. Gruber and Linda W. Gruber under a warrant, dated March 16, 2004;
  - o 93,333 shares issuable to Lagunitas Partners LP under a warrant, dated March 16, 2004;
  - o 77,778 shares issuable to Omicron Master Trust under a warrant, dated March 16, 2004;
  - o 472,500 shares issuable to Palisades Master Fund, L.P. under a warrant, dated March 16, 2004; and
  - o 54,444 shares issuable to Stonestreet LP under a warrant, dated March 16, 2004; and
- (c) 160,000 shares (the "Consultant Shares") which are issuable upon exercise of the following warrants (collectively, the "Consultant Warrants"):
- o 100,000 shares issuable at an exercise price of \$2.92 per share to R. Keith Fetter under a warrant, dated March 16, 2004;
  - o 30,000 shares issuable at an exercise price of \$2.92 per share to Joe Dilustro under a warrant, dated March 16, 2004; and
  - o 30,000 shares issuable at an exercise price of \$2.92 per share to Chet Dubov under a warrant, dated March 16, 2004.

Perma-Fix Environmental Services, Inc.

April 30, 2004

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We have examined such corporate records, certificates of officers, other documents and questions of law, as we have considered necessary or appropriate for the purposes of this opinion.

On the basis of such examination, review, and assumption, we are of the opinion that:

- (a) the 4,616,113 Shares previously issued pursuant to the terms of the Private Placement constitute validly issued, fully paid, and nonassessable shares of Common Stock;
- (b) the 1,615,638 Warrant Shares issuable pursuant to the terms of the Warrants will constitute, when so issued, validly issued, fully paid, and nonassessable shares of Common Stock;
- (c) the 160,000 Consultant Shares issuable pursuant to the terms of the Consultant Warrants will constitute, when so issued, validly issued, fully paid, and nonassessable shares of Common Stock;

We consent to the reference to our firm under the heading "Legal Opinion" and to the filing of this opinion as Exhibit 5.1 to said Registration Statement.

Very truly yours,

CONNER & WINTERS, P.C.

/s/ Conner & Winters, P.C.  
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EXHIBIT 10.3

NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR REASONABLY ACCEPTABLE TO THE COMPANY TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY.

COMMON STOCK PURCHASE WARRANT

To Purchase 100,000 Shares of Common Stock of  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

THIS COMMON STOCK PURCHASE WARRANT (the "WARRANT") CERTIFIES that, for value received, R. Keith Fetter (the "HOLDER"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date of issuance of this Warrant (the "INITIAL EXERCISE DATE") and on or prior to the third anniversary of the Initial Exercise Date (the "TERMINATION DATE") but not thereafter, to subscribe for and purchase from Perma-Fix Environmental Services, Inc., a Delaware corporation (the "COMPANY"), up to 100,000 shares (the "WARRANT SHARES") of Common Stock, par value \$0.001 per share, of the Company (the "COMMON STOCK"). The purchase price of one share of Common Stock (the "EXERCISE PRICE") under this Warrant shall be \$2.92, subject to adjustment hereunder. The Exercise Price and the number of Warrant Shares for which the Warrant is exercisable shall be subject to adjustment as provided herein.

TITLE TO WARRANT. Prior to the Termination Date and subject to compliance with applicable laws and Section 7 of this Warrant, this Warrant and all rights hereunder are transferable, in whole or in part, at the office or agency of the Company by the Holder in person or by duly authorized attorney, upon surrender of this Warrant together with the Assignment Form annexed hereto properly endorsed. The transferee shall sign an investment letter in form and substance reasonably satisfactory to the Company.

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1. AUTHORIZATION OF SHARES. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

2. EXERCISE OF WARRANT.

(a) Exercise of the purchase rights represented by this Warrant may be made at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy of the Notice of Exercise Form annexed hereto (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder

appearing on the books of the Company); PROVIDED, HOWEVER, within 5 Trading Days of the date said Notice of Exercise is delivered to the Company, the Holder shall have surrendered this Warrant to the Company and the Company shall have received payment of the aggregate Exercise Price of the shares thereby purchased by wire transfer or cashier's check drawn on a United States bank. Certificates for shares purchased hereunder shall be delivered to the Holder within the earlier of (i) 15 Trading Days after the date on which the Notice of Exercise shall have been delivered by facsimile copy or (ii) 10 Trading Days from the delivery to the Company of the Notice of Exercise Form by facsimile copy, surrender of this Warrant and payment of the aggregate Exercise Price as set forth above ("WARRANT SHARE DELIVERY DATE"); PROVIDED, HOWEVER, in the event the Warrant is not surrendered or the aggregate Exercise Price is not received by the Company within 15 Trading Days after the date on which the Notice of Exercise shall be delivered by facsimile copy, the Warrant Share Delivery Date shall be extended to the extent such 15 Trading Day period is exceeded. This Warrant shall be deemed to have been exercised on the later of the date the Notice of Exercise is delivered to the Company by facsimile copy and the date the Exercise Price is received by the Company. The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised by payment to the Company of the Exercise Price and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid. If the Company fails to deliver to the Holder a certificate or certificates representing the Warrant Shares pursuant to this Section 3(a) by the fifteenth Trading Day following the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

(b) If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

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(c) The Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 3(a) or otherwise, to the extent that after giving effect to such issuance after exercise, the Holder (together with the Holder's affiliates), as set forth on the applicable Notice of Exercise, would beneficially own in excess of 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to such issuance. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (A) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its affiliates and (B) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its affiliates. Except as set forth in the preceding sentence, for purposes of this Section 3(c), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act, it being acknowledged by Holder that the Company is not representing to Holder that such calculation is in compliance with Section 13(d) of the Exchange Act, and Holder is solely responsible for

any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 3(c) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of such Holder, and the submission of a Notice of Exercise shall be deemed to be such Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. For purposes of this Section 3(c), in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company's most recent Form 10-Q or Form 10-K, as the case may be, (y) a more recent public announcement by the Company or (z) any other notice by the Company or the Company's Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of the Holder, the Company shall within 3 Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its affiliates since the date as of which such number of outstanding shares of Common Stock was reported.

(d) Subject to the provisions of this Section 3, if after the Effective Date, the Closing Price for each of twenty consecutive Trading Days (the "MEASUREMENT PERIOD", which period shall not have commenced until after the Effective Date) exceeds \$6.00 per share (the "THRESHOLD PRICE"), subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the Initial Exercise Date, then the Company may, within two Trading Days of such period, call for cancellation of all or any portion of this Warrant for which a Notice of Exercise has not yet been delivered (such right, a "CALL"). To exercise this right, the Company must deliver to the Holder an irrevocable written notice (a "CALL NOTICE"), indicating therein the portion of unexercised portion of this Warrant to which such notice applies. If the conditions set forth below for such Call are satisfied from the period from the date of the Call Notice through and including the Call Date (as defined below), then any portion of this Warrant subject to such Call Notice for which a Notice of Exercise shall not have been received from and after the date of the Call Notice will be cancelled at 6:30 p.m. (New York City time) on the tenth Trading Day after the date the Call Notice is received by the Holder (such date, the "CALL DATE"). Any unexercised portion of this Warrant to which the Call Notice does not pertain will be unaffected by such Call Notice. In furtherance thereof, the Company covenants and agrees that it will honor all Notices of Exercise with respect to Warrant Shares subject to a Call Notice that are tendered from the time of delivery of the Call Notice through 6:30 p.m. (New York City time) on the Call Date. The parties agree that any Notice of Exercise delivered following a Call Notice shall first reduce to zero the number of Warrant Shares subject to such Call Notice prior to reducing the remaining Warrant Shares available for purchase under this Warrant. For example, if (x) this Warrant then permits the Holder to acquire 100 Warrant Shares, (y) a Call Notice pertains to 75 Warrant Shares, and (z) prior to 6:30 p.m. (New York City time) on the Call Date the Holder tenders a Notice of Exercise in respect of 50 Warrant Shares, then (1) on the Call Date the right under this Warrant to acquire 25 Warrant Shares will be automatically cancelled, (2) the Company, in the time and manner required under this Warrant, will have issued and

delivered to the Holder 50 Warrant Shares in respect of the exercises following receipt of the Call Notice, and (3) the Holder may, until the Termination Date, exercise this Warrant for 25 Warrant Shares (subject to adjustment as herein provided and subject to subsequent Call Notices). Subject again to the provisions of this Section 3(d), the Company may deliver subsequent Call Notices for any portion of this Warrant for which the Holder shall not have delivered a Notice of Exercise.

3. NO FRACTIONAL SHARES OR SCRIP. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

4. CHARGES, TAXES AND EXPENSES. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; PROVIDED, HOWEVER, that in the event certificates for Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

5. CLOSING OF BOOKS. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

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#### 6. TRANSFER, DIVISION AND COMBINATION.

(a) Subject to compliance with any applicable securities laws and the conditions set forth in Sections 1 and 7(e) hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Promptly following such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

(b) This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 7(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

(c) The Company shall prepare, issue and deliver at its own expense (other than transfer taxes) the new Warrant or Warrants under this Section

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(d) The Company agrees to maintain, at its aforesaid office, books for the registration and the registration of transfer of the Warrants.

(e) If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws, the Company may require, as a condition of allowing such transfer (i) that the Holder or transferee of this Warrant, as the case may be, furnish to the Company a written opinion of counsel (which opinion shall be in form, substance and scope customary for opinions of counsel in comparable transactions) to the effect that such transfer may be made without registration under the Securities Act and under applicable state securities or blue sky laws, (ii) that the holder or transferee execute and deliver to the Company an investment letter in form and substance acceptable to the Company and (iii) that the transferee be an "accredited investor" as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7), or (a)(8) promulgated under the Securities Act or a qualified institutional buyer as defined in Rule 144A(a) under the Securities Act.

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7. NO RIGHTS AS SHAREHOLDER UNTIL EXERCISE. This Warrant does not entitle the Holder to any voting rights or other rights as a shareholder of the Company prior to the exercise hereof. The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the close of business on the date the Warrant shall be deemed to have been exercised pursuant to Section 3 and all taxes required to be paid by the Holder, if any, pursuant to Section 5 prior to the issuance of such shares, have been paid.

8. LOSS, THEFT, DESTRUCTION OR MUTILATION OF WARRANT. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft, or destruction of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

9. SATURDAYS, SUNDAYS, HOLIDAYS, ETC. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

10. ADJUSTMENTS OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES; STOCK SPLITS, ETC. The number and kind of securities purchasable upon the exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time upon the happening of any of the following. In case the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock to holders of its outstanding Common Stock, (ii) subdivide its outstanding shares of Common Stock into a greater number of shares, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock, or (iv) issue any shares of its capital stock in a reclassification of the Common Stock, then the number of Warrant Shares

purchasable upon exercise of this Warrant immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company which it would have owned or have been entitled to receive had such Warrant been exercised in advance thereof. Upon each such adjustment of the kind and number of Warrant Shares or other securities of the Company which are purchasable hereunder, the Holder shall thereafter be entitled to purchase the number of Warrant Shares or other securities resulting from such adjustment at an Exercise Price per Warrant Share or other security obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of Warrant Shares purchasable pursuant hereto immediately prior to such adjustment and dividing by the number of Warrant Shares or other securities of the Company that are purchasable pursuant hereto immediately after such adjustment. An adjustment made pursuant to this paragraph shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

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11. REORGANIZATION, RECLASSIFICATION, MERGER, CONSOLIDATION OR DISPOSITION OF ASSETS. In case the Company shall reorganize its capital, reclassify its capital stock, consolidate or merge with or into another corporation (where the Company is not the surviving corporation or where there is a change in or distribution with respect to the Common Stock of the Company), or sell, transfer or otherwise dispose of its property, assets or business to another corporation and, pursuant to the terms of such reorganization, reclassification, merger, consolidation or disposition of assets, shares of common stock of the successor or acquiring corporation, or any cash, shares of stock or other securities or property of any nature whatsoever (including warrants or other subscription or purchase rights) in addition to or in lieu of common stock of the successor or acquiring corporation ("OTHER PROPERTY"), are to be received by or distributed to the holders of Common Stock of the Company, then the Holder shall have the right thereafter to receive, upon exercise of this Warrant, the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and Other Property receivable upon or as a result of such reorganization, reclassification, merger, consolidation or disposition of assets by a Holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event. In case of any such reorganization, reclassification, merger, consolidation or disposition of assets, the successor or acquiring corporation (if other than the Company) shall expressly assume the due and punctual observance and performance of each and every covenant and condition of this Warrant to be performed and observed by the Company and all the obligations and liabilities hereunder, subject to such modifications as may be deemed appropriate (as determined in good faith by resolution of the Board of Directors of the Company) in order to provide for adjustments of Warrant Shares for which this Warrant is exercisable which shall be as nearly equivalent as practicable to the adjustments provided for in this Section 12. For purposes of this Section 12, "common stock of the successor or acquiring corporation" shall include stock of such corporation of any class which is not preferred as to dividends or assets over any other class of stock of such corporation and which is not subject to redemption and shall also include any evidences of indebtedness, shares of stock or other securities which are convertible into or exchangeable for any such stock, either immediately or upon the arrival of a specified date or the happening of a specified event and any warrants or other rights to subscribe for or purchase any such stock. The foregoing provisions of this Section 12 shall similarly apply to successive reorganizations, reclassifications, mergers, consolidations or disposition of assets.

12. VOLUNTARY ADJUSTMENT BY THE COMPANY. The Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

13. NOTICE OF ADJUSTMENT. Whenever the number of Warrant Shares or number or kind of securities or other property purchasable upon the exercise of this Warrant or the Exercise Price is adjusted, as herein provided, the Company shall give notice thereof to the Holder, which notice shall state the number of Warrant Shares (and other securities or property) purchasable upon the exercise of this Warrant and the Exercise Price of such Warrant Shares (and other securities or property) after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made.

14. NOTICE OF CORPORATE ACTION. If at any time:

(a) the Company shall take a record of the holders of its Common Stock for the purpose of entitling them to receive a dividend or other distribution, or any right to subscribe for or purchase any evidences of its indebtedness, any shares of stock of any class or any other securities or property, or to receive any other right, or

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(b) there shall be any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or any consolidation or merger of the Company with, or any sale, transfer or other disposition of all or substantially all the property, assets or business of the Company to, another corporation or,

(c) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then, in any one or more of such cases, the Company shall give to Holder (i) at least 10 days' prior written notice of the date on which a record date shall be selected for such dividend, distribution or right or for determining rights to vote in respect of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, liquidation or winding up, and (ii) in the case of any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up, at least 10 days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause also shall specify (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, the date on which the holders of Common Stock shall be entitled to any such dividend, distribution or right, and the amount and character thereof, and (ii) the date on which any such reorganization, reclassification, merger, consolidation, sale, transfer, disposition, dissolution, liquidation or winding up is to take place and the time, if any such time is to be fixed, as of which the holders of Common Stock shall be entitled to exchange their Warrant Shares for securities or other property deliverable upon such disposition, dissolution, liquidation or winding up. Each such written notice shall be sufficiently given if addressed to Holder at the last address of Holder appearing on the books of the Company and delivered in accordance with Section 17(c).

15. AUTHORIZED SHARES. The Company covenants that during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for the Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such

Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed.

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant, and (c) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof as may be necessary to enable the Company to perform its obligations under this Warrant.

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Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

#### 16. MISCELLANEOUS.

(a) RESTRICTIONS. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

(b) NONWAIVER AND EXPENSES. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding all rights hereunder terminate on the Termination Date. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder (excluding any lost profits, incidental or consequential damages).

(c) NOTICES. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth on the signature pages attached hereto prior to 6:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth on the signature pages attached hereto on a day that is not a Trading Day or later than 6:30 p.m. (New York City time) on any Trading Day, (c) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The

address for such notices and communications shall be as set forth on the signature pages attached hereto.

(d) LIMITATION OF LIABILITY. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant or purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

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(e) REMEDIES. Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.

(f) SUCCESSORS AND ASSIGNS. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

(g) AMENDMENT. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(h) SEVERABILITY. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(a) HEADINGS. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: March 16, 2004

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

By: /S/ DR. LOUIS F. CENTOFANTI

-----  
Name: Dr. Louis F. Centofanti  
Title: Chairman of the Board  
Chief Executive Officer

NOTICE OF EXERCISE

To: Perma-Fix Environmental Services, Inc.

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] a cashier's check drawn on a United States bank; or

[ ] a wire transfer.

(3) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned or in such other name as is specified below:

\_\_\_\_\_

The Warrant Shares shall be delivered to the following:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(4) ACCREDITED INVESTOR. The undersigned is an "accredited investor" as defined in Regulation D under the Securities Act of 1933, as amended.

[PURCHASER]

By: \_\_\_\_\_

Name:

Title:

Dated: \_\_\_\_\_

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form and supply required information.

Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to \_\_\_\_\_ whose address is \_\_\_\_\_.

\_\_\_\_\_

Dated: \_\_\_\_\_, \_\_\_\_\_

Holder's Signature: \_\_\_\_\_

Holder's Address: \_\_\_\_\_

\_\_\_\_\_

Signature Guaranteed: \_\_\_\_\_

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

Exhibit 23.1

Perma-Fix Environmental Services, Inc.  
Gainesville, Florida

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated February 27, 2004, relating to the consolidated financial statements and schedule of Perma-Fix Environmental Services, Inc. and subsidiaries appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2003.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/S/ BDO SEIDMAN, LLP

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BDO Seidman, LLP  
West Palm Beach, Florida  
April 30, 2004