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

# FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR
15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 1998

Commission File Number 1-8036

WEST PHARMACEUTICAL SERVICES, INC.
(Exact name of registrant as specified in its charter)

| Pennsylvania | 23-1210010 |
|---|---|
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification Number) |

| 101 Gordon Drive, PO Box 645, Lionville, PA | 19341-0645 |
|---|---|
| (Address of principal executive offices) | (Zip Code) |

Registrant's telephone number, including area code 610-594-2900

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

| Title of each class | Name of each exchange on which registered |
|---|---|
| Common Stock, par value $.25 per share | New York Stock Exchange |

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

None

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes X . No .

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

As of March 17, 1999, the Registrant had 15,099,072 shares of its Common Stock outstanding. The market value of Common Stock held by non-affiliates of the Registrant as of that date was $514,312,140.

Exhibit Index appears on pages F-1, F-2, F-3, and F-4.

DOCUMENTS INCORPORATED BY REFERENCE

Documents incorporated by reference: 1) portions of the Registrant's Annual Report to Shareholders for the Company's 1998 fiscal year (the "1998 Annual Report to Shareholders") are incorporated by reference in Parts I and II; and (2) portions of the Registrant's definitive Proxy Statement (the "Proxy Statement") are incorporated by reference in Part III.



PART I

Item 1. Business

The Company

West Pharmaceutical Services, Inc. (formerly The West Company, Incorporated) applies value-added services to the process of bringing new drug therapies and healthcare products to global markets. West's technologies include the design and manufacture of packaging components for pharmaceutical, healthcare and consumer products; the research and development of drug delivery systems, and contract laboratory services and other services that support the manufacturing, filling and packaging of pharmaceutical, healthcare and consumer products. The Company's activities are organized in three operating segments: 1) the Device Product Development segment (consisting of four regional business units serving global markets) designs, manufactures, and sells stoppers, closures, medical device components and assemblies made from elastomers, metal and plastics; 2) the Contract Services segment (consisting of two business units serving the United States and Puerto Rico markets) provides contract manufacturing and contract packaging services to the pharmaceutical and personal care industries and contract laboratory services for testing injectable drug packaging; and 3) the Drug Delivery Research and Development segment (consisting of two business units) identifies and develops drug delivery systems for biopharmaceutical and other drugs to improve their therapeutic performance and/or their method of administration. As of December 31, 1998, the Company and its subsidiaries had 4,800 employees.

The Company, a Pennsylvania business corporation, was founded in 1923. The executive offices of the Company are located at 101 Gordon Drive, PO Box 645, Lionville, Pennsylvania 19341-0645, approximately 35 miles from Philadelphia. The telephone number at the Company's executive offices is 610-594-2900. As used in this Item, the term "Company" includes West Pharmaceutical Services, Inc. and its consolidated subsidiaries, unless the context otherwise indicates.

Device Product Development
Principal Products

Pharmaceutical Stoppers

The Company is the world's largest independent manufacturer of stoppers for sealing drug vials and other pharmaceutical containers. Several hundred proprietary formulations are molded from natural rubber and synthetic elastomers into a variety of

stopper sizes, shapes and colors. The stoppers are used in packaging serums, vaccines, antibiotics, anesthetics, intravenous solutions and other drugs.

Most stopper formulations are specially designed to be compatible with drugs so that the drugs will remain effective and unchanged during storage. New rubber compounds must be tested to show that they do not leach into the customer's product or affect its potency, sterility, effectiveness, color or clarity. The Company's laboratories conduct tests to determine the compatibility of its stoppers with customers' drugs and, in the United States, file formulation information with the Food and Drug Administration in support of customers' new drug applications.

Stoppers usually are washed, sterilized and subject to other pre-use processes by the customer or a third-party before they are fitted on the container. However, the Company has recently introduced a value-added line of stoppers that are pre-washed and ready to be sterilized, eliminating several steps in customers' incoming processes. The Company is also marketing a line of pre-sterilized stoppers that can be introduced directly into customers' sterile drug-filling operations.

Metal Seals
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The Company also offers a broad line of aluminum seals in various sizes, shapes and colors. The seals are crimped onto glass or plastic pharmaceutical containers to hold the stoppers securely in place. The top of aluminum seals often contains tamper-evident tabs or plastic covers, which must be removed before the drug can be withdrawn.

Some aluminum seals are sold with specially formulated rubber or elastomeric discs pre-fitted inside the seal. These "lined" seals may be placed directly onto the pharmaceutical container, thus eliminating the need for a separate stopper.

Other Products
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Other products for the pharmaceutical industry include:

- Products used in the packaging of non-injectable drugs such as rubber dropper bulbs, plastic contraceptive drug packages and child-resistant and tamper-evident plastic closures

- Plastic bottles and containers for the pharmaceutical industry

- Rubber and plastic components for empty and pre-filled disposable syringes such as plungers, hubs and needle covers



- Blood-sampling system components, including vacuum tube stoppers and needle valves, and a number of specialized rubber and plastic components for blood-analyzing systems and other medical devices

- Disposable infant nursers and individual nurser components

The Company also manufactures a wide range of standard and custom-designed plastic threaded caps and containers for the personal-care industry. The caps, produced mainly for cosmetics and toiletries, come in many different sizes and colors. The Company also makes closures for food and beverage processors. The Company focuses its efforts on multiple-piece closures that require high-speed assembly.

Product Development

The Company maintains its own laboratories for testing raw materials and finished goods to assure conformity to customer specifications and to safeguard product quality. Laboratory facilities are also used for development of new products. Engineering staffs are responsible for product and tooling design and testing and for the design and construction of processing equipment. In addition, a corporate product development department develops new packaging and device concepts. Approximately 120 professional employees were engaged full time in these activities in 1998. Development and engineering expenditures for the creation and application of new and improved device products and manufacturing processes were approximately $9.2 million in 1998, $8.8 million in 1997 and $8.9 million in 1996, net of cost reimbursements by customers.

Recent Developments

The Company has taken steps to expand its product offerings and improve competitiveness of its Device Product Development operating segment.

The Company increased its capacity in the components area with the acquisition of Schubert Seals A/S, a Danish manufacturer of rubber components and metal seals servicing the European pharmaceutical industry. A 51% ownership interest was acquired in May 1994 and the remaining 49% in December 1995. The company's name was recently changed to "West Pharmaceutical Services Danmark A/S."

In 1996 and 1997, the Company implemented a major restructuring plan announced in 1996. The plan included the closing or downsizing of six manufacturing facilities, withdrawal from the machinery business and an approximate 5% reduction in the workforce. The restructuring was designed to reduce the costs associated with multiple plant sites and shift certain production capacity to lower-cost locations. In 1998, a further 1%



reduction in the workforce, made possible by manufacturing and other operating efficiencies, was announced. (Additional information pertaining to these activities is incorporated by reference to the Note "Restructuring Charges" of Notes to Consolidated Financial Statements of the 1998 Annual Report to Shareholders.)

In 1998, the Company acquired Betraine Limited, a company located in the U.K., which manufactures precision injection molded plastic components for the healthcare and consumer industries. The acquisition expanded global capabilities in the non-injectable market.

## Contract Services
## Principal Services

Contract Packaging and Contract Manufacturing

The Company entered into the pharmaceutical services market in 1995 with its acquisition of Paco Pharmaceutical Services, Inc. ("Paco"). Paco's name was recently changed to West Pharmaceutical Services Lakewood, Inc. (West Lakewood).

West Lakewood provides contract manufacturing and packaging of products for pharmaceutical and consumer-products companies. With its flexible manufacturing environment and workforce, West Lakewood has the capability to quickly undertake to make and package products according to customers' specifications, usually employing customer-supplied raw materials. Once the operation is complete, West Lakewood delivers the finished product to the

customer for final sale and distribution to the end user.

Customers typically use West Lakewood services on a temporary basis to supplement their own manufacturing or packaging capability during a new-product introduction or special promotion. However, West Lakewood does retain long-term business in both the manufacturing and packaging areas. West Lakewood operates facilities in Lakewood, New Jersey and Canovanas, Puerto Rico.

West Lakewood contract packaging and manufacturing processes and services are subject to the Good Manufacturing Practice standards applicable to the pharmaceutical industry as well as to numerous other federal and state laws and regulations governing the manufacture, handling and packaging of drugs and other regulated substances.

West Lakewood manufactures liquids and creams, solids, suspensions, and powders. These products produced include:

headache and cold medications

skin lotions



deodorants

toothpaste and mouthwash

metaproterenol and albuterol, products used for inhalation therapy.

West Lakewood contract-packaging services include the design, assembly and filling of a broad variety of packages, including

"blister" packages (i.e., a plastic film with a foil backing)

bottles and tubes

laminated and other flexible pouches or strip packages

aluminum and plastic liquid cup containers

paperboard specialty packages

innovative tamper-evident and child-resistant packages

Although the type of package depends on the requirements of the customer, blister packaging or bottles typically are used for tablets and capsules while aluminum or plastic cups, pouches, bottles and tubes are used for liquids, creams, ointments and powders.

Contract Laboratory Services

In 1998, the Company established the contract laboratory services business, which provides testing services to analyze customers' injectable product packaging. Regulatory agencies require drug companies to demonstrate that packaging components will not contaminate the drug. The test data is generated in a format acceptable for U.S. Food and Drug Administration (FDA) submissions. The services offered include product/closure interaction testing, extractables testing, moisture analysis of closures, particle quantification/analysis, quantification of closure surface silicone, and other custom services. The Company's laboratory complies with applicable Good Manufacturing Practice standards and its laboratory will be FDA registered.

## Research and Development
### Drug Delivery Systems

In 1993, the Company began developing drug-delivery systems for bio-pharmaceuticals and other drugs that are difficult to administer effectively through traditional injectable or oral routes. Improving the therapeutic performance of these drugs in an economical fashion calls for sophisticated delivery solutions.



To advance the Company's efforts in this area, in 1994 the Company began acquiring interests in DanBioSyst UK Ltd. (DBS) in 10% annual increments; and in March 1998, acquired the remaining 70% ownership interest, making DBS a wholly-owned subsidiary. DBS is a research company located in Nottingham, England, which specializes in identifying and developing systems for delivery of complex drug molecules, or to assist in delivering drugs to a specific site in the body. DBS engages in research to develop these unique systems and then patents this technology. DBS has patents or patent applications covering a range of delivery platforms including nasal, oral, parenteral, pulmonary and rectal/vaginal. DBS enters into agreements with biopharmaceutical and other drug companies, to apply its delivery system technology to the customers' drug molecule to achieve the desired result.

The Company's Lionville-based resources are dedicated to development of drug delivery systems. This group's work, until recently, was focused on the Ocufit SR system, a silicone rod small enough to fit behind the eyelid. The Ocufit SR can be designed to release a number of different drugs in predefined quantities over time periods ranging from two weeks to several months without physical intervention. The Ocufit SR is being jointly developed with Escalon Medical Corporation, which owns the basic technology. An Investigative New Drug Application was filed with the FDA late in 1998, and Escalon is now conducting Phase I clinical trials. The Lionville group is also developing products based on DBS patented technology. The current projects relate to nasal delivery of leuprolide and morphine and further development of the Targit delivery system, a coated starch capsule, designed to deliver medication to a specific site in the body.

The Company had 58 employees directly engaged in these activities as of December 31, 1998 and total expenses were $5.3 million, net of revenues received, in 1998.

## Order Backlog

Device product orders on hand at December 31, 1998 were approximately $90 million, compared with approximately $80 million at the end of 1997. Orders on hand include those placed by customers for manufacture over a period of time according to a customer's schedule or upon confirmation by the customer. Orders are generally considered firm when goods are manufactured or orders are confirmed. The Company also has contractual arrangements with a number of its customers, and products covered by these contracts are included in the Company's backlog only as orders are received from those customers.

West Lakewood's twelve-month backlog of unfilled customer orders was approximately $18 million at December 31, 1998 and December 31, 1997. Backlog is defined by West Lakewood as orders written



and included in production schedules during the next 12 months. Such orders generally may be cancelled by the customer without penalty.

## Raw Materials

The Company uses three basic raw materials in the manufacture of its device products: rubber; aluminum; and plastic. The Company has been receiving adequate supplies of raw materials to meet its production needs, and it foresees no significant availability problems in the near future.

The Company is pursuing a supply chain management strategy, which involves purchasing from integrated suppliers that control their own sources of supply. This strategy has reduced the number of raw-materials suppliers used by the Company. In some cases, the Company will purchase raw materials from a single source to assure quality and reduce costs. This strategy increases the risks that the Company's supply lines may be interrupted in the event of a supplier production problem. These risks are managed by selecting suppliers with multiple manufacturing sites, rigid-quality control systems, surplus inventory levels and other methods of maintaining supply in case of interruption in production.

## Patents and Licenses

The Company's device products patents and trademarks have been useful in establishing the Company's market share and in the growth of the Company's manufactured device product business and may continue to be of value in the future, especially in view of the Company's continuing development of its own proprietary products. Nevertheless, the Company does not consider its current manufactured device product business or its earnings to be materially dependent upon any single patent or trademark.

Although not material at this time, the Company believes its drug delivery development capabilities will play an increasingly important role in the future. DBS has a growing portfolio of patented technology, which is critical to our success because a significant amount of future income is expected to be derived from licensing this technology to customers.

## Major Customers

The Company provides manufactured device components and/or contract services to major pharmaceutical and hospital supply/medical device companies, many of which have several divisions with separate purchasing responsibilities. The Company also provides contract-packaging and contract-manufacturing services for many of the leading manufacturers of personal-care products. The Company distributes its products and services



primarily through its own sales force but also uses regional distributors in the United States and Asia/Pacific. The business units have separate sales forces but the Company is increasing the sales effort of each group to sell all of the Company's capabilities.

Becton Dickinson and Company ("B-D") accounted for approximately 12% of the Company's 1998 consolidated net sales. The principal products sold to B-D are synthetic rubber, natural rubber, metal and plastic components used in B-D's disposable syringes and blood sampling and analysis devices. The Company expects to continue as a major B-D supplier.

Excluding B-D, the next ten largest customers accounted for approximately 30% of the Company's consolidated net sales in 1998, but no one of these customers accounted for more than 5% of 1998 consolidated net sales.

## Competition

The Company competes with several companies, some of which are

larger than the Company, across its major Device Product Development product lines. In addition, many companies worldwide compete with the Company for business related to specific product lines. However, the Company believes that it supplies a major portion of the U.S. market requirements for pharmaceutical elastomer and metal packaging components and has a significant share of the European market for these components.

Because of the special nature of these products, competition is based primarily on product design and performance, although total cost is becoming increasingly more important as pharmaceutical companies initiate aggressive cost-control measures across their entire operations. Competitors often compete on the basis of price. The Company differentiates itself from its competition as a "full-service" supplier, which is able to provide pre-sale compatibility studies and other services and sophisticated post-sale technical support on a global basis.

The Company competes against numerous competitors in the field of plastic closures for consumer products, many of which are larger than the Company and command dominant market shares. The Company attempts to differentiate itself through its expertise in high-speed assembly of multiple-piece closures.

The U.S. contract-packaging and manufacturing service industry is highly competitive. For packaging services, West Lakewood competes with three significant companies, only two of which are larger than it. For contract-manufacturing services, West Lakewood competes with four major competitors and several smaller regional companies; several of these competitors are larger than it. In addition, most domestic pharmaceutical companies maintain in-house manufacturing and packaging capabilities and at times will offer their excess capacity to manufacture or package other



companies' products on a contract basis. However, most large pharmaceutical and personal healthcare companies have traditionally made extensive use of contract packagers and manufacturers during times of peak demand, during the introduction of a new product and for production of samples and special product promotions.

Many companies provide proprietary drug delivery technologies to the pharmaceutical and biotech markets. However, unlike West, the majority of these companies are focused on a single route of drug administration, and very few have capabilities necessary to take drug products through all stages of the development process and commercial manufacture. The three largest companies, the market leaders, have multiple-delivery technologies, but their strong franchises are in oral, controlled-release delivery systems. West's drug delivery technologies, none of which is currently in commercial production, are in less competitive segments that do not compete with the market leaders.

## Environmental Regulations

The Company does not believe that it will have any material expenditures relating to environmental matters other than those discussed in the Note "Commitments and Contingencies" of Notes to Consolidated Financial Statements of the 1998 Annual Report to Shareholders, incorporated by reference herein.

## International

The Note "Affiliated Companies" and the Note "Segment Information" of Notes to Consolidated Financial Statements of the 1998 Annual Report to Shareholders are incorporated herein by reference.

The Company believes that its international business does not

involve a substantially greater business risk than its domestic business. Financial crises in the Asia/Pacific region and more recently in our major markets in South America have resulted in a decline in demand for the Company's products in these regions; however, direct sales to customers in these markets have historically not been significant, representing less than 10% of consolidated sales.

The Company's financial condition and results are impacted by fluctuations in exchange-rate markets (See Notes "Summary of Significant Accounting Policies - Foreign Currency Translation" and "Other Income (Expense)" of Notes to Consolidated Financial Statements of the 1998 Annual Report to Shareholders, incorporated herein by reference). Hedging by the Company of these exposures is discussed in the Note "Debt" and in the Note "Financial Instruments" of Notes to Consolidated Financial



Statements of the 1998 Annual Report to Shareholders, incorporated herein by reference.

## Item 2. Properties

In the Device Product Development operating segment, the Company maintains nine manufacturing plants and two mold and die production facilities in the United States, one manufacturing plant in Puerto Rico, and a total of eight manufacturing plants and two mold and die production facilities in Germany, England, France, Denmark, Brazil and Singapore.

In the Contract Services operating segment, the Company maintains one facility in the United States and one facility in Puerto Rico to provide contract manufacturing and packaging services. Contract Laboratory services are provided from the Company's Lionville, Pennsylvania facility.

The Company's executive offices, U.S. research and development center and pilot plant are located in a leased facility at Lionville, Pennsylvania, about 35 miles from Philadelphia. The Company conducts drug delivery research and development in a leased facility located in Nottingham, England. All other company facilities are used for manufacturing and distribution, and facilities in Eschweiler, Germany are also used for device product development activities.

The production facilities of the Company are well-maintained, are operating generally on a two- or three-shift basis and are adequate for the Company's present needs.

The principal facilities in the United States and Puerto Rico are as follows:

- Approximately 839,000 square feet of owned and 997,000 square feet of leased space in Pennsylvania, New Jersey, Florida, Nebraska, North Carolina and Puerto Rico.

The principal international facilities are as follows:

- Approximately 530,000 square feet of owned space and 67,700 square feet of leased space in Germany, England, Denmark and France.

- Approximately 69,000 square feet of owned space in Brazil.

- Approximately 92,000 square feet of owned space in Singapore.

Of the aforementioned currently owned facilities, approximately 354,000 square feet are subject to mortgages to secure the Company's real estate mortgage notes. See the Note "Debt" of Notes to Consolidated Financial Statements of the 1998 Annual

Report to Shareholders, which information is incorporated herein by reference.

Sales office facilities in separate locations are leased under short-term arrangements.

The Company also holds for sale former manufacturing facility space in Puerto Rico - totaling 42,000 square feet.

## Item 3. Legal Proceedings.

None



## Item 4. Submission of Matters to a Vote of Security Holders

None.

## Item 4 (a) Executive Officers of the Registrant

The executive officers of the Company at March 31, 1999 were as follows:

| Name | Age | Business Experience During Past Five Years |
|---|---|---|
| George R. Bennyhoff1 | 55 | Senior Vice President, Human Resources and Public Affairs. |
| Jerry E. Dorsey1 | 54 | President and Chief Operating Officer since September 1998, previously Executive Vice President and Chief Operating Officer from June 1994 to August 1998; Group President from August 1993 to June 1994; President, Health Care Division from May 1992 to July 1993 for the Company. |
| Steven A. Ellers1 | 48 | Senior Vice President and Chief Financial Officer since March 1998; previously Group President from August 1997 to February 1998; Corporate Vice President, Sales from April 1996 to July 1997; Vice President, Operations from June 1994 to March 1996; Vice President Asia/Pacific and Managing Director, Singapore from May 1990 to May 1994 for the Company. |
| John R. Gailey III1 | 44 | Vice President since December 1995, General Counsel since May 1994 and Secretary. |
| Stephen M. Heumann1 | 57 | Vice President since May 1994 and Treasurer. |
| Lawrence P. Higgins1 | 59 | Vice President, Operations since May 1996 and prior to joining the Company an international business consultant from 1994 to 1996 and Senior Vice President International Operations for Revlon, Inc., a cosmetics company, from 1992 to 1994. |

1 Holds position as corporate officer elected by the Board of Directors for one year term.



| Name | Age | Business Experience During Past Five Years |
|---|---|---|
| William G. Little1 | 56 | Chairman of the Board since May 1995, Director and Chief Executive Officer for the Company and President of the Company until September 1998. |
| Donald E. Morel, Jr.1 | 41 | Group President since March 1998; previously, Corporate Vice President, Scientific Services from May 1995 to February 1998; Vice President, Research & Development from August 1993 to May 1995 and prior thereto Director Research & Development, Health Care Products Division from May 1993 to August 1993 for the Company. |
| Anna Mae Papso1 | 55 | Vice President and Corporate Controller |
| Anthony A. Sinkula | 61 | Vice President and Chief Scientific Officer since July 1998 and prior to joining the Company a consultant to several major pharmaceutical companies and the National Cancer Institute. |

1 Holds position as corporate officer elected by the Board of Directors for one year term.



## PART II

### Item 5. Market for Registrant's Common Equity and Related Stockholder Matters

The Company's common stock is listed on the New York Stock Exchange and the high and low prices for the stock for each calendar quarter in 1998 and 1997 were as follows:

| | First Quarter | | Second Quarter | | Third Quarter | | Fourth Quarter | | Year | |
|---|---|---|---|---|---|---|---|---|---|---|
| | High | Low | High | Low | High | Low | High | Low | High | Low |
| 1998 | 321/4 | 2815/16 | 33 | 28 | 30 | 25 | 3511/16 | 27 | 3511/16 | 25 |
| 1997 | 291/4 | 27 | 30 | 27 | 343/16 | 281/2 | 351/16 | 28 | 351/16 | 27 |

As of December 31, 1998, the Company had 1,903 shareholders of record. There were also 2,900 holders of shares registered in nominee names. The Company's common stock paid a quarterly dividend of $.14 per share in each of the first three quarters of 1997; $.15 per share in the fourth quarter of 1997 and each of

the first three quarters of 1998; and $.16 per share in the fourth quarter of 1998.

Item 6. Selected Financial Data.

Information with respect to the Company's net sales, income (loss) from consolidated operations, income (loss) before change in accounting method, income (loss) before change in accounting method per share (basic and assuming dilution) and dividends paid per share is incorporated by reference to the line items corresponding to those categories under the heading "Ten-Year Summary - Summary of Operations" of the 1998 Annual Report to Shareholders. Information with respect to total assets and total debt is incorporated by reference to the line items corresponding to those categories under the heading "Ten-Year Summary - Year-End Financial Position" of the 1998 Annual Report to Shareholders.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The information called for by this Item is incorporated by reference to the text appearing in the "Financial Review" section of the 1998 Annual Report to Shareholders.

Item 7A. Quantitative and Qualitative Disclosure about Market Risk

The information called for by this Item is incorporated by reference to the Notes "Financial Instruments", "Summary of Significant Accounting Policies" of Notes to Consolidated Financial Statements of the 1998 Annual Report to Shareholders.



Item 8. Financial Statements and Supplementary Data.

The information called for by this Item is incorporated by reference to "Consolidated Financial Statements", "Notes to Consolidated Financial Statements", and "Quarterly Operating and Per Share Data (Unaudited)" of the 1998 Annual Report to Shareholders.

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

None.

PART III

Item 10. Directors and Executive Officers of the Registrant.

Information called for by this Item is incorporated by reference to "PROPOSAL #1: ELECTION OF DIRECTORS" and "OWNERSHIP OF COMPANY STOCK" in the Proxy Statement.

Information about executive officers of the Company is set forth in Item 4 (a) of this report.

Item 11. Executive Compensation.

Information called for by this Item is incorporated by reference to "INFORMATION ABOUT THE BOARD AND BOARD COMMITTEES - Compensation of Directors"; "BOARD COMPENSATION COMMITTEE REPORT ON EXECUTIVE COMPENSATION"; and "COMPENSATION OF NAMED EXECUTIVE OFFICERS" contained in the Proxy Statement.

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

Information called for by this Item is incorporated by reference to "OWNERSHIP OF COMPANY STOCK" contained in the Proxy Statement.

Item 13. Certain Relationships and Related Transactions.

None

PART IV

Item 14. Exhibits, Financial Statement Schedules and Reports on Form 8-K.

(a) 1. The following report and consolidated financial statements, included in the 1998 Annual Report to Shareholders, have been incorporated herein by reference:



Consolidated Statements of Income for the years ended December 31, 1998, 1997 and 1996

Consolidated Statements of Comprehensive Income for the years ended December 31, 1998, 1997 and 1996

Consolidated Balance Sheets at December 31, 1998 and 1997

Consolidated Statements of Shareholders' Equity for the years ended December 31, 1998, 1997 and 1996

Consolidated Statements of Cash Flows for the years ended December 31, 1998, 1997 and 1996

Notes to Consolidated Financial Statements

Report of Independent Accountants

(a) 2. Supplementary Financial Information

Schedules are omitted because they are either not applicable, not required or because the information required is contained in the consolidated financial statements or notes thereto.

(a) 3. See Index to Exhibits on pages F-1, F-2, F-3 and F-4 of this Report.

(b) There were no reports on Form 8-K filed by the Company in the fourth quarter of 1998.

(c) The exhibits are listed in the Index to Exhibits on pages F-1, F-2, F-3 and F-4 of this Report.

(d) Financial Statements of affiliates are omitted because they do not meet the tests of a significant subsidiary at the 20% level.



SIGNATURES

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

WEST PHARMACEUTICAL SERVICES, INC.
(Registrant)

By /s/ Steven A. Ellers
---
Steven A. Ellers
Senior Vice President
and Chief Financial Officer

March 31, 1999
---
Date

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

| Signature | Title | Date |
|---|---|---|
| William G. Little<br>---<br>William G. Little<br>(Principal Executive Officer) | Chairman, Director and Chief Executive Officer | March 31, 1999 |
| Tenley E. Albright<br>---<br>Tenley E. Albright * | Director | March 31, 1999 |
| John W. Conway<br>---<br>John W. Conway* | Director | March 31, 1999 |
| George W. Ebright<br>---<br>George W. Ebright* | Director | March 31, 1999 |
| Steven A. Ellers<br>---<br>Steven A. Ellers | Senior Vice President and Chief Financial Officer | March 31, 1999 |
| L. Robert Johnson<br>---<br>L. Robert Johnson* | Director | March 31, 1999 |
| William H. Longfield<br>---<br>William H. Longfield* | Director | March 31, 1999 |



| Signature | Title | Date |
|---|---|---|
| John P. Neafsey<br>---<br>John P. Neafsey* | Director | March 31, 1999 |

| | | |
|---|---|---|
| Anna Mae Papso<br>Anna Mae Papso<br>(Principal Accounting Officer) | Vice President and Corporate Controller | March 31, 1999 |
| Monroe E. Trout | Director | March 31, 1999 |
| Anthony Welters<br>Anthony Welters* | Director | March 31, 1999 |
| J. Roffe Wike, II<br>J. Roffe Wike, II* | Director | March 31, 1999 |
| Geoffrey F. Worden<br>Geoffrey F. Worden* | Director | March 31, 1999 |

* By William G. Little pursuant to a power of attorney.



INDEX TO EXHIBITS

| Exhibit Number | |
|---|---|
| (3) (a) | Amended and Restated Articles of Incorporation of the Company through January 4, 1999. |
| (3) (b) | Bylaws of the Company, as amended through October 27, 1998, incorporated by reference to Exhibit (3)(b) to the Company's Form 10-Q for the quarter ended September 30, 1998 (File No. 1-8036). |
| (4) (a) | Form of stock certificate for common stock. |
| (4) (b) | Flip-In Rights Agreement between the Company and American Stock Transfer & Trust Company, as Rights Agent, dated as of January 16, 1990, incorporated by reference to Exhibit 1 to the Company's Form 8-A Registration Statement (File No. 1-8036). |
| (4) (c) | Flip-Over Rights Agreement between the Company and American Stock Transfer & Trust Company, as Rights Agent, dated as of January 16, 1990, incorporated by reference to Exhibit 2 to the Company's Form 8-A Registration Statement (File No. 1-8036). |
| (9) | None. |
| (10) (a) | Lease dated as of December 31, 1992 between Lion Associates, L.P. and the Company, relating to the lease of the Company's headquarters in Lionville, Pa., incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1992 (File No. 1-8036). |
| (10) (b) | First Addendum to Lease dated as of May 22, 1995 between Lion Associates, L.P. and the Company, incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1995 (File No. 1-8036). |

(10) (c) Long-Term Incentive Plan, as amended March 2, 1993, incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1992 (File No. 1-8036).

(10) (d) Amendments to the Long Term Incentive Plan, dated April 30, 1996, incorporated herein by reference to the Company's Form 10Q for the quarter ended June 30, 1996 (File No. 1-8036).

(10) (e) Executive Incentive Bonus Plan 1999.





Exhibit
Number

(10) (f) Non-Qualified Stock Option Plan for Non-Employee Directors, reflecting amendments effective April 30, 1996 and April 28, 1998 incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 1998 (File No. 1-8036).

(10) (g) Form of amended and restated agreement between the Company and certain of its executive officers, incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 1998 (File No.1-8036).

(10) (h) Schedule of agreements with executive officers, incorporated herein by reference to the Company's Quarterly Report on Form 10Q for the quarter ended March 31, 1998 (File No.1-8036).

(10) (i) Supplemental Employees' Retirement Plan, incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1989 (File No. 1-8036).

(10) (j) Amendment No. 1 to Supplemental Employees' Retirement Plan, incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1995 (File No. 1-8036).

(10) (k) Amendment No. 2 to Supplemental Employees' Retirement Plan, incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 1995 (File No. 1-8036).

(10) (l) Retirement Plan for Non-Employee Directors of the Company, as amended April 28, 1998, incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 1998 (File No. 1-8036).

(10) (m) Employment Agreement dated May 20, 1991 between the Company and William G. Little, incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1991 (File No. 1-8036).

(10) (n) Non-Qualified Deferred Compensation Plan for Designated Executive Officers and Amendments Nos. 1 and 2 thereto.

(10) (o) Non-qualified Deferred Compensation Plan for Outside Directors and Amendment No. 1 thereto.





Exhibit
Number

(10) (p) Lease Agreement, dated August 31, 1978, between Paco Packaging, Inc. and Nineteenth Lakewood Corp., as amended

by Amendment of Lease, dated November 30, 1978, Second Amendment of Lease, dated August 6, 1979, Third Amendment of Lease, dated July 24, 1980 and Fourth Amendment of Lease, dated August 14, 1980, incorporated by reference to the Exhibits to Paco Pharmaceutical Services, Inc's Registration Statement on Form S-1, Registration No. 33-48754, filed with the Commission.

(10) (q) Fifth Amendment of Lease, dated May 13, 1994, to the Lease Agreement, dated August 31, 1978, between Paco Packaging, Inc. and Nineteenth Lakewood Corp., incorporated by reference to the Exhibits to Paco Pharmaceutical Services, Inc.'s Annual Report on Form 10-K for the year ended March 31, 1994 (File number 0-20324).

(10) (r) Lease Agreement, dated December 9, 1977, between Paco Packaging, Inc. and New Oak Street Corp., as amended by the Amendment to Lease Agreement, dated August 31, 1978, Second Amendment of Lease, dated April 8, 1979 and Third Amendment of Lease, dated November 16, 1983, incorporated by reference to the Exhibits to Paco Pharmaceutical Services, Inc.'s Registration Statement on Form S-1, Registration No. 33-48754, filed with the Commission.

(10) (s) Lease Agreement, dated April 7, 1986, between Northlake Realty Co. Inc. and Paco Packaging, Inc., as amended by Amendment to Lease, dated July 1, 1986, Second Amendment of Lease, dated June 15, 1987 between Paco Packaging and C. P. Lakewood, L. P., Agreement, dated December 29, 1987, and Lease Modification Agreement, dated December 13, 1989, incorporated by reference to the Exhibits to Paco Pharmaceutical Services, Inc.'s Registration Statement on Form S-1, Registration No. 33-48754, filed with the Commission.

(10) (t) Collective Bargaining Agreement, dated December 1, 1997, by and between Paco Pharmaceutical Services, Inc. and Teamster Local 35 (affiliated with the International Brotherhood of Teamsters), incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1997 (File No.1-8036).

(10) (u) 1998 Key Employee Incentive Compensation Plan, dated March 10, 1998, incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1997 (File No.1-8036).

(10) (v) Asset Purchase Agreement Among Collaborative Clinical Research, Inc., GFI Pharmaceutical Services, Inc., and WCE clinical Evaluations and West Pharmaceuticals, Inc. dated December 28, 1998.





Exhibit Number

(11) Not Applicable.

(12) Not Applicable.

(13) Portions of 1998 Annual Report to Shareholders.

(16) Not applicable.

(18) None.

(21) Subsidiaries of the Company.

(22) None.

(23) Consent of Independent Accountants.

(24) Powers of Attorney.

(27) Financial Data Schedules

(99) None.

EXHIBIT A

AMENDED AND RESTATED ARTICLES OF INCORPORATION
OF WEST PHARMACEUTICAL SERVICES, INC.

1. The name of the Corporation is West Pharmaceutical Services, Inc.

2. The location and post office address of the Corporation's registered office in Pennsylvania is c/o Corporation Service Company, 319 Market Street, Harrisburg, PA 17101.

3. The Corporation is incorporated under the Pennsylvania Business Corporation Law and shall have unlimited power to engage in and to do any lawful act concerning any or all lawful business, including manufacturing, processing, research and development, for which corporations may be incorporated under the Pennsylvania Business Corporation Law.

4. The term for which the Corporation is to exist is perpetual.

5. Capital Stock. The aggregate number of shares of capital stock which the Corporation shall have authority to issue is 53,000,000 shares, consisting of (i) 3,000,000 shares of Preferred Stock, par value $.25 per share ("Preferred Stock") and (ii) 50,000,000 shares of Common Stock, par value $.25 per share ("Common Stock").

The following is a statement of the designations, preferences qualifications, limitations, restrictions and the special or relative rights granted to or imposed upon the shares of each such class:

Preferred Stock

(a) Issue in Series. Preferred Stock may be issued from time to time in one or more series, each such series to have the terms stated herein and in the resolution of the board of directors providing for its issue. All shares of any one series of Preferred Stock shall be identical, but shares of different series of Preferred Stock need not rank equally or be identical except insofar as provided by law or hereunder.

(b) Creation of Series. The board of directors shall have authority by resolution to cause to be created one or more series of Preferred Stock, and to determine and fix with respect to each series, prior to the issuance of any shares of the series to which such resolution relates:

(i) The distinctive designation of the series and the number of shares which shall constitute the series, which number may be increased or decreased (but not below the number of shares then outstanding) from time to time by action of the board of directors;

(ii) The dividend rate and the times of payment of dividends on the shares of the series, whether dividends shall be cumulative, and, if so, from what date or dates;

(iii) The price or prices at which, and

the terms and conditions on which, the shares of the series may be redeemed at the option of the Corporation;

(iv) Whether or not the shares of the series shall be entitled to the benefit of a retirement or sinking fund to be applied to the purchase or redemption of such shares and, if so entitled, the annual amount of such fund and the terms and provisions relative to the operation thereof;

(v) Whether or not the shares of the series shall be convertible into, or exchangeable for, shares of any other series of the same or any other class or classes of stock of the Corporation, and if so convertible or exchangeable, the conversion price or prices, or the rates of exchange, and any adjustments thereof, if any, at which such conversion or exchange may be made, and any other terms and conditions of such conversion or exchange;

(vi) The rights of the shares of the series in the event of voluntary or involuntary liquidation, dissolution or winding up of the Corporation;

(vii) Whether or not the shares of the series shall have priority over or parity with or be junior to the shares of any other series or class in any respect or shall be entitled to the benefit of limitations restricting the issuance of shares of any other series or class having priority over or being on a parity with the shares of such series in any respect, or restricting the payment of dividends on, or the making of other distributions in respect of shares of any other series or class ranking junior to the shares of the series as to dividends or assets, or restricting the purchase or redemption of the shares of any such junior series or class, and the terms of any such restrictions;

(viii) Whether the series shall have voting rights, in addition to the voting rights provided by law, and, if so, the terms of such voting rights; and

(ix) Any other preferences qualifications, privileges and other relative or special

rights and limitations of that series.

(c) Dividends. Holders of Preferred Stock shall be entitled to receive, when and as declared by the board of directors, out of funds legally available for the payment thereof, dividends at the rates fixed by the board of directors for the respective series, and no more, before any dividends shall be declared and paid, or set apart for payment, on Common Stock with respect to the same dividend period.

(d) Preference on Liquidation. In the event of the voluntary or involuntary liquidation, dissolution or winding up of the Corporation, holders of each series of Preferred Stock shall be entitled to receive the amount fixed for such series plus, in the case of any series on which dividends shall have been determined by the board of directors to be cumulative, an amount equal to all dividends accumulated and unpaid thereon to the date of final distribution whether or not earned or declared. If the assets of the Corporation are not sufficient to pay such amounts in full, holders of all shares of Preferred Stock shall participate ratably in the distribution of assets in proportion to the full amounts to which they are entitled or in such order or priority, if any, as shall have been fixed in the resolution or resolutions providing for the issuance

of the series of Preferred Stock. Neither the merger nor consolidation of the Corporation into or with any other corporation, nor a sale, transfer or lease of all or part of its assets, shall be deemed a liquidation of the Corporation within the meaning of this paragraph.

(e) Redemption. The Corporation at the option of the board of directors may redeem all or part of the shares of any series of Preferred Stock on the terms and conditions fixed for such series. In case of the redemption of less than all outstanding shares of any series of Preferred Stock, the shares to be redeemed shall be selected by lot or in such other manner as the board of directors determines.

(f) Voting Rights. Except as otherwise required by law or as otherwise provided in any certificate creating any series of Preferred Stock, the holders of such of the series of Preferred Stock, if any, as shall have been granted such power pursuant to any certificate creating any series of Preferred Stock shall, together with the holders of Common Stock, exclusively possess voting power in the election of directors and for all other purposes, and the holders of the other series of Preferred Stock shall have no voting power and shall not be entitled to any notice of any meeting of shareholders.

Series A Junior Participating Preferred Stock

(a) Designation and Amount. There shall be a series of Preferred Stock designated as "Series A Junior Participating Preferred Stock" and the aggregate number of shares constituting such series shall be 50,000.

(b) Dividends and Distributions.

(i) Subject to the prior and superior rights of the holders of any shares of any series of Preferred Stock ranking prior and superior to the shares of Series A Junior Participating Preferred Stock with respect to dividends, the holders of shares of Series A Junior Participating Preferred Stock shall be entitled to receive, when, as and if declared by the board of directors out of funds legally available for the purpose, quarterly dividends payable in cash on March 31, June 30, September 30 and December 31 in each year (each such date being referred to herein as a "Quarterly Dividend Payment Date"), commencing on the first Quarterly Dividend Payment Date after the first issuance of a share or fraction of a share of Series A Junior Participating Preferred Stock, in an amount per share (rounded to the nearest cent) equal to the greater of (a) $10 or (b) subject to the provision for adjustment hereinafter set forth, 1,000 times the aggregate per share amount of all cash dividends, and 1,000 times the aggregate per share amount (payable in kind) of all non-cash dividends or other distributions other than a dividend payable in shares of Common Stock or a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise), declared on the Common Stock since the immediately preceding Quarterly Dividend Payment Date, or, with respect to the first Quarterly Dividend Payment Date, since the first issuance of any share or fraction of a share of Series A Junior Participating Preferred Stock. In the event the Corporation shall at any time after January 16, 1990 (the "Rights Declaration Date") (i) declare any dividend on Common Stock payable in shares of Common Stock, (ii) subdivide the outstanding Common Stock, or (iii) combine the outstanding Common Stock into a smaller number of shares, then in each such case the amount to which holders of shares of Series A Junior Participating Preferred Stock were

entitled immediately prior to such event under clause (b) of the preceding sentence shall be adjusted by multiplying such amount by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(ii) The Corporation shall declare a dividend or distribution on the Series A Junior Participating Preferred Stock as provided in paragraph (i) above immediately after it declares a dividend or distribution on the Common Stock (other than a dividend payable in shares of Common Stock); provided that, in the event no dividend or distribution shall have been declared on the Common Stock during the period between any Quarterly Dividend Payment Date and the next subsequent Quarterly Dividend Payment Date, a dividend of $10 per share on the Series A Junior Participating Preferred Stock shall nevertheless be payable on such subsequent Quarterly Dividend Payment Date.

(iii) Dividends shall begin to accrue and be cumulative on outstanding shares of Series A Junior Participating Preferred Stock from the Quarterly Dividend Payment Date next preceding the date of issue of such shares of Series A Junior Participating Preferred Stock, unless the date of issue of such shares is prior to the record date for the first Quarterly Dividend Payment Date, in which case dividends on such shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Quarterly Dividend Payment Date or is a date after the record date for the determination of holders of shares of Series A Junior Participating Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. The Board of Directors may fix a record date for the determination of holders of shares of Series A Junior participating Preferred Stock entitled to receive payment of a dividend or distribution declared thereon, which record date shall be no more than 30 days prior to the date fixed for the payment thereof.

(c) Voting Rights. The holders of shares of Series A Junior Participating Preferred Stock shall have the following voting rights:

(i) Subject to the provision for adjustment hereinafter set forth, each share of Series A Junior Participating Preferred Stock shall entitle the holder thereof to 1,000 votes on all matters submitted to a vote of the shareholders of the Corporation. In the event the Corporation shall at any time after the Rights Declaration Date (a) declare any dividend on Common Stock payable in shares of Common Stock, (b) subdivide the outstanding Common Stock, or (c) combine the outstanding Common Stock into a smaller number of shares, then in each such case the number of votes per share to which holders of shares of Series A Junior Participating Preferred Stock were entitled immediately prior to such event shall be adjusted by multiplying such number by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(ii) Except as otherwise provided herein or by law, the holders of shares of Series A Junior Participating Preferred Stock and the holders of shares of common Stock shall vote together as one class on all matters submitted to a vote of shareholders of the Corporation.

(iii) (A) If at any time dividends on any Series A Junior Participating Preferred Stock shall be in arrears in an amount equal to six (6) quarterly dividends thereon, the occurrence of such contingency shall mark the beginning of a period (herein called a "default period") which shall extend until such time when all accrued and unpaid dividends for all previous quarterly dividend periods and for the current quarterly dividend period on all shares of Series A Junior Participating Preferred Stock then outstanding shall have been declared and paid or set apart for payment. During each default period, all holders of Preferred Stock (including holders of the Series A Junior Participating Preferred Stock) with dividends in arrears in an amount equal to six (6) quarterly dividends thereon, voting as a class, irrespective of series, shall have the right to elect two (2) directors.

(B) During any default period, such voting right of the holders of Series A Junior Participating Preferred Stock may be exercised initially at a special meeting called pursuant to subparagraph (C) of this paragraph (c)(iii) or at any annual meeting of shareholders, and thereafter at annual meetings of shareholders, provided that neither such voting right nor the right of the holders of any other series of Preferred Stock, if any, to increase, in certain cases, the authorized number of directors shall be exercised unless the holders of ten percent (10)% in number of shares of Preferred Stock outstanding shall be present in person or by proxy. The absence of a quorum of the holders of Common Stock shall not affect the exercise by the holders of Preferred Stock of such voting right. At any meeting at which the holders of Preferred Stock shall exercise such voting right initially during an existing default period, they shall have the right, voting as a class, to elect directors to fill such vacancies, if any, in the board of directors as may then exist up to two (2) directors or, if such right is exercised at an annual meeting, to elect two (2) directors. If the number which may be so elected at any special meeting does not amount to the required number, the holders of the Preferred Stock shall have the right to make such increase in the number of directors as shall be necessary to permit the election by them of the required number. After the holders of the Preferred Stock shall have exercised their right to elect directors in any default period and during the continuance of such period, the number of directors shall not be increased or decreased except by vote of the holders of Preferred Stock as herein provided or pursuant to the rights

of any equity securities ranking senior to or pari passu with the Series A Junior Participating Preferred Stock.

(C) Unless the holders of Preferred Stock shall, during an existing default period, have previously exercised their right to elect directors, the board of directors may order, or any shareholder or shareholders owning in the aggregate not less than ten percent (10%) of the total number of shares of Preferred Stock outstanding, irrespective of series, may request, the calling of a special meeting of the holders of Preferred Stock, which meeting shall thereupon be called by the

President, a Vice-President or the Secretary of the Corporation. Notice of such meeting and of any annual meeting at which holders of Preferred Stock are entitled to vote pursuant to this subparagraph (C) shall be given to each holder of record of Preferred Stock by mailing a copy of such notice to him at his last address as the same appears on the books of the Corporation. Such meeting shall be called for a time not earlier than 20 days and not later than 60 days after such order or request or in default of the calling of such meeting within 60 days after such order or request, such meeting may be called on similar notice by any shareholder or shareholders owning in the aggregate not less than ten percent (10%) of the total number of shares of Preferred Stock outstanding. Notwithstanding the provisions of this subparagraph (C), no such special meeting shall be called during the period within 60 days immediately preceding the date fixed for the next annual meeting of the shareholders.

(D) In any default period, the holders of Common Stock, and other classes of stock of the Corporation if applicable, shall continue to be entitled to elect the whole number of directors until the holders of Preferred Stock shall have exercised their right to elect two (2) directors voting as a class, after the exercise of which right (x) the directors so elected by the holders of Preferred Stock shall continue in office until their successors shall have been elected by such holders or until the expiration of the default period, and (y) any vacancy in the board of directors may (except as provided in subparagraph (B) of this paragraph (c)(iii) be filled by vote of a majority of the remaining directors theretofore elected by the holders of the class of stock which elected the director whose office shall have become vacant. References in this subparagraph (D) to directors elected by the holders of a particular class of stock shall include directors elected by such directors to fill vacancies as provided in clause (y) of the preceding sentence.

(E) Immediately upon the expiration of a default period, (x) the right of the holders of Preferred Stock as a class to elect directors shall cease, (y) the term of any directors elected by the holders of Preferred Stock as a class shall terminate, and (z) the number of directors shall be such number as may be provided for in the Articles of Incorporation or Bylaws irrespective of any increase made pursuant to the provisions of subparagraph (B) of this paragraph (c)(iii) (such number being subject, however, to change thereafter in any manner provided by law or in the Articles of Incorporation or Bylaws). Any vacancies in the board of directors effected by the provisions of clauses (y) and (z) in the preceding sentence may be filled by a majority of the remaining directors.

(iv) Except as set forth herein, holders of Series A Junior participating Preferred Stock shall have no special voting rights and their consent shall not be required (except to the extend they are entitled to vote with holders of Common Stock as set forth herein) for taking any corporate action.

(d) Certain Restrictions

(i) Whenever quarterly dividends or other dividends or distributions payable on the Series A Junior Participating Preferred Stock as provided in paragraph (b) are in arrears, thereafter and until all accrued and unpaid dividends and distributions, whether or not declared, on shares of Series A Junior Participating Preferred Stock

outstanding shall have been paid in full, the Corporation shall not

(A) declare or pay dividends on, make any other distributions on, or redeem or purchase or otherwise acquire for consideration any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Junior Participating Preferred Stock;

(B) declare or pay dividends on or make any other distributions on any shares of stock ranking on a party (either as to dividends or upon liquidation, dissolution or winding up) with the Series A Junior Participating Preferred Stock, except dividends paid ratably on the Series A Junior Participating Preferred Stock and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled;

(C) redeem or purchase or otherwise acquire for consideration shares of any stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series A Junior Participating Preferred Stock, provided that the Corporation may at any time redeem, purchase or otherwise acquire shares of any such parity stock in exchange for shares of any stock

of the Corporation ranking junior (either as to dividends or upon dissolution, liquidation or winding up) to the Series A Junior Participating Preferred Stock; or

(D) purchase or otherwise acquire for consideration any shares of Series A Junior Participating Preferred Stock, or any shares of stock ranking on a parity with the Series A Junior Participating Preferred Stock, except in accordance with a purchase offer made in writing or by publication (as determined by the board of directors) to all holders of such shares upon such terms as the board of directors, after consideration of the respective annual dividend rates and other relative rights and preferences of the respective series and classes, shall determine in good faith will result in fair and equitable treatment among the respective series or classes.

(ii) the Corporation shall not permit any subsidiary of the Corporation to purchase or otherwise acquire for consideration any shares of stock of the Corporation unless the Corporation could, under paragraph (d)(i), purchase or otherwise acquire such shares at such time and in such manner.

(e) Reacquired Shares. Any shares of Series A Junior Participating Preferred Stock purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and cancelled promptly after the acquisition thereof. All such shares shall upon their cancellation become authorized but unissued shares of Preferred Stock and may be reissued as part of a new series of Preferred Stock to be created by resolution or resolutions of the board of directors, subject to the conditions and restrictions on issuance set forth herein.

(f) Liquidation, Dissolution or Winding Up.

(i) Upon any liquidation (voluntary or otherwise), dissolution or winding up of the Corporation, no distribution shall be made to the holders of shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Junior

Participating Preferred Stock unless, prior thereto, the holders of shares of Series A Junior Participating Preferred Stock shall have received $10 per share, plus an amount equal to accrued and unpaid dividends any distribution thereon, whether or not declared, to the date of such payment (the "Series A Liquidation Preference"). Following the payment of the full amount of the Series A Liquidation Preference, no additional distributions shall be made to the holders of shares of Series A Junior Participating Preferred Stock unless, prior thereto, the holders of shares of Common Stock shall have received an amount per share (the "Common Adjustment") equal to the quotient obtained by dividing (a)

the Series A Liquidation Preference by (b) 1,000 (as appropriately adjusted as set forth in paragraph (iii) below to reflect such events as stock splits, stock dividends and recapitalizations with respect to the Common Stock) (such number in clause (b), the AAdjustment Number@). Following the payment of the full amount of the Series A Liquidation Preference and the Common Adjustment in respect of all outstanding shares of Series A Junior participating Preferred Stock and common Stock, respectively, holders of Series A Junior Participating Preferred Stock and holders of shares of Common Stock shall receive their ratable and proportionate share of the remaining assets to be distributed in the ratio of the Adjustment Number to 1 with respect to such Preferred Stock and common Stock, on a per share basis, respectively.

(ii) In the event, however, that there are not sufficient assets available to permit payment in full of the Series A Liquidation Preference and the liquidation preferences of all other series of Preferred Stock, if any, which rank on a parity with the Series A Junior Participating Preferred Stock, then such remaining assets shall be distributed ratably to the holders of such parity shares in proportion to their respective liquidation preferences. In the event, however, that there are not sufficient assets available to permit payment in full of the Common Adjustment, then such remaining assets shall be distributed ratably to the holders of Common Stock.

(iii) In the event the Corporation shall at any time after the Rights Declaration Date (a) declare any dividend on Common Stock payable in shares of Common Stock, (b) subdivide the outstanding Common Stock, or (c) combine the outstanding common Stock into a smaller number of shares, then in each such case the Adjustment Number in effect immediately prior to such event shall be adjusted by multiplying such Adjustment Number by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(g) Consolidation, Merger, etc. In case the Corporation shall enter into any consolidation, merger, combination or other transaction in which the shares of Common Stock are exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case the shares of Series A Junior Participating Preferred Stock shall at the same time be similarly exchanged or changed in an amount per share (subject to the provision for adjustment hereinafter set forth) equal to 1,000 times the aggregate amount of stock, securities, cash and/or any other property (payable in kind), as the case may be, into which or for which each share of Common Stock is

changed or exchanged. In the event the Corporation shall at any time after the Rights Declaration Date (i) declare any dividend on Common Stock payable in shares of Common Stock, (ii) subdivide the outstanding Common Stock, or (iii) combine the outstanding Common Stock into a smaller number of shares, then in each such case the amount set forth in the preceding sentence with respect to the exchange or change of shares of Series A Junior Participating Preferred Stock shall be adjusted by multiplying such amount by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(h) No Redemption. The shares of Series A Junior Participating Preferred Stock shall not be redeemable.

(i) Ranking. The Series A Junior Participating Preferred Stock shall rank junior to all other series of Preferred Stock as to the payment of dividends and the distribution of assets unless the terms of any such series shall provide otherwise.

(j) Amendment. The Articles of Incorporation of the Corporation shall not be further amended in any manner which would materially alter or change the powers, preferences or special rights of the Series A Junior Participating Preferred Stock so as to affect them adversely without the affirmative vote of the holders of a majority or more of the outstanding shares of Series A Junior Participating Preferred Stock, voting separately as a class.

(k) Fractional Shares. Series A Junior Participating Preferred Stock may be issued in fractions of a share which shall entitle the holder, in proportion to such holder's fractional shares, to exercise voting rights, receive dividends participate in distributions and to have the benefit of all other rights of holders of Series A Junior Participating Preferred Stock.

Common Stock

(a) Dividends. Holders of Common Stock shall be entitled to receive such dividends as may be declared by the board of directors, except that the Corporation will not declare, pay or set apart for payment any dividend on shares of Common Stock (other than dividends payable in Common Stock), or directly or indirectly make any distribution on, redeem, purchase or otherwise acquire any such shares, if at the time of such action the Corporation is in default with respect to any dividend due and payable on, or any sinking or purchase fund requirement relating to, any shares of Preferred Stock.

(b) Distribution of Assets. In the event of voluntary or involuntary liquidation, dissolution or winding up of the Corporation, holders of Common Stock shall be entitled to receive pro rata all of the remaining assets of the Corporation available for distribution to its shareholders after all amounts to which the holders of Preferred Stock are entitled have been paid or set aside in cash for payment.

(c) Voting Rights. Except as otherwise required by law or provided in any certificate creating any series of Preferred Stock, the holders of Common Stock shall have the exclusive right to vote in the election of directors and for all other purposes, each such holder being entitled to one

vote for each share thereof held.

6. Vote Required for Certain Significant Transactions

(a) Higher Vote for Certain Significant Transactions. In addition to any affirmative vote required by law or these Articles of Incorporation, and except as otherwise expressly provided in paragraph (b) of this Article 6:

(i) any merger or consolidation of the Corporation or any Subsidiary (as hereinafter defined) with (a) any Related Person (as hereinafter defined), or (b) any other corporation (whether or not itself a Related Person) which is, or after such merger or consolidation would be, an Affiliate (as hereinafter defined) of a Related Person; or

(ii) any sale, lease, exchange, mortgage, pledge, transfer or other disposition(in one transaction or a series of transactions) to or with any Related Person or any Affiliate of any Related Person of any assets of the Corporation or any Subsidiary having an aggregate Fair Market Value (as hereinafter defined) of $1,000,000 or more; or

(iii) the issuance or transfer by the Corporation or any Subsidiary (in one transaction or a series of transactions) of any securities of the Corporation or any Subsidiary to any Related Person or any Affiliate of any Related Person in exchange for cash, securities or other property (or a combination thereof) having an aggregate Fair Market Value of $1,000,000 or more; or

(iv) the purchase by the Corporation or any Subsidiary (in one transaction or a series of transactions within a two year period) of any outstanding shares of capital stock of the Corporation which entitles the holder thereof to vote generally in the election of directors (the "Voting Stock") in exchange for cash, securities or other property (or a combination thereof) having an aggregate Fair Market Value of $1,000,000 or more; or

(v) the adoption of any plan or proposal for the liquidation or dissolution of the Corporation proposed by or on behalf of a Related Person or any Affiliate of any Related Person; or

(vi) any reclassification of securities (including any reverse stock split), or recapitalization of the Corporation, or any merger or consolidation of the Corporation with any of its Subsidiaries or any other transaction (whether or not with or into or otherwise involving a Related Person) which has the effect, directly or indirectly, of increasing the proportionate share of the outstanding shares of any class of equity or convertible securities of the Corporation or any Subsidiary which is directly or indirectly owned by any Related Person or any Affiliate of any Related Person;

shall require the affirmative vote of the holders of at least 80% of the voting power of the then-outstanding shares of voting Stock, voting together as a single class. (For purposes of this Article 6, each share of the Voting Stock shall have the number of votes granted to it pursuant to Article 5 of these Articles of Incorporation). Such affirmative vote shall be required notwithstanding the fact that no vote may be required, or that a lesser percentage may be specified, by law or in any agreement with any national securities exchange or otherwise.

The term ASignificant Transaction@ as used in this Article 6 shall mean any transaction which is referred to in any one or more of paragraphs (i) through (vi) of paragraph (a) of this Article 6.

(b) When Higher Vote is Not Required. The provisions of paragraph (a) of this Article 6 shall not be applicable to any particular Significant Transaction, and such Significant Transaction shall require only such action as is required by law, the Bylaws of the Corporation, and any other provision of these Articles of Incorporation, if all of the conditions specified in either of the following paragraphs (i) and (ii) are met:

(i) The Significant Transaction shall have been approved by a majority of the continuing Directors (as hereinafter defined) or

(ii) All of the following conditions shall have been met:

(A) The aggregate amount of the cash and the Fair Market Value as of the date of the consummation of the Significant Transaction of consideration other than cash to be received per share by holders of Common Stock in such Significant Transaction shall be at least equal to the highest of the following:

(1) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers' fees) paid by the Related Person for any shares of Common Stock acquired by it (a) within the two-year period immediately prior to the first public announcement of the proposal of the significant Transaction (the "Announcement Date"), or (b) in the transaction in which it became a Related Person, whichever is higher; and

(2) the Fair Market Value per share of Common Stock on the Announcement Date or on the date on which the Related Person became a Related Person, whichever is higher; and

(3) the earnings per share of Common Stock for the four full consecutive fiscal quarters immediately preceding the Announcement Date as to which financial results have been published by the Corporation, multiplied by the then highest price/earnings multiple (if any) of such Related Person or any of its Affiliates as customarily computed and reported in the financial community; and

(4) the price per share equal to the Fair Market Value per share of Common Stock determined pursuant to subparagraph (A)(2) of this paragraph (b)(ii), multiplied by a fraction the numerator of which is the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers= fees) paid by the Related Person for any shares of Common Stock acquired by it within the two-year period immediately prior to the Announcement Date and the denominator of which is the Fair Market Value per share of Common Stock on the first day in such two-year period upon which the Related Person acquired any shares of Common Stock.

(B) the consideration to be received by the holders of Common Stock in such Significant Transaction shall be either cash or the same type of consideration used by the Related Person in acquiring the largest portion of

its holdings of Common Stock prior to the first public announcement of the proposed Significant Transaction.

(C) After such Related Person has become a Related Person and prior to the consummation of such Significant Transaction: (1) there shall have been (a) no failure to pay nor reduction in the annual rate of dividends paid on the Common Stock (as such rate may be adjusted from time to time to reflect changes in the Corporation=s capitalization) unless such failure to pay or reduction is approved by a majority of the continuing Directors; and (2) such Related Person shall not have become the beneficial owner of any additional shares of Voting Stock except as part of the transaction which results in such Related Person becoming a Related Person.

(D) after such Related Person has become a Related Person, such Related Person shall not have received the benefit, directly or indirectly (except proportionately as a shareholder of the Corporation), of any loans, advances, guarantees, pledges or other financial assistance or any tax credits or other tax advantages provided by the Corporation, whether in anticipation of or in connection with such Significant Transaction or otherwise.

(E) A proxy or information statement describing the proposed Significant Transaction and complying with the requirements of the Securities Exchange Act of 1934 and the rules and regulations thereunder (or any subsequent provisions replacing such Act, rules or regulations) shall be mailed to public shareholders of the Corporation at least 30 days prior to the consummation of such Significant Transaction (whether or not such proxy or information statement is required to be mailed pursuant to such Act or subsequent provisions).

(c) Certain Definitions. For the purposes of this Article 6:

(i) A "person" shall mean any individual, firm, corporation or other entity.

(ii) "Related Person" shall mean any person (other than the Corporation or any Subsidiary) who or which:

(A) is the beneficial owner, directly or indirectly, of more than 10% of the voting power of the outstanding Voting Stock; or

(B) is an Affiliate of the Corporation and at any time within the two-year period immediately prior to the date in question was the beneficial owner, directly or indirectly, of 10% or more of the voting power of the then-outstanding Voting Stock; or

(C) is an assignee of or has otherwise succeeded to any shares of Voting Stock which were at any time within the two-year period immediately prior to the date in question beneficially owned by any Related Person, if such assignment or succession shall have occurred in the course of a transaction or series of transactions not involving a public offering within the meaning of the Securities Act of 1993.

If two or more person shall at any time be "Related Persons," each Related Person whose involvement in a transaction causes it to be a Significant Transaction shall be treated as: (a) "the Related Person" for purposes of the application of the requirements of paragraph (b) of this Article 6 to such transaction, and (b) "the Related Person in question" for purposes of determining whether a person is a "Continuing Director" with respect to such transaction.

(iii) A person shall be a "beneficial owner" of any Voting Stock:

(A) which such person or any of its Affiliates or Associates (as hereinafter defined) beneficially owns, directly or indirectly; or

(B) which such person or any of its Affiliates or Associates has (1) the right to acquire (whether such right is exercisable immediately or only after the passage of time), pursuant to any agreement, arrangement or understanding or upon the exercise of conversion rights, exchange rights, warrants or options, or otherwise, or (2) the right to vote pursuant to any agreement, arrangement or understanding; or

(C) which is beneficially owned, directly or indirectly, by any other person with which such person or any of its Affiliates or Associates has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting or disposing of any shares of Voting Stock.

(iv) For the purposes of determining whether a person is a Related Person pursuant to paragraph (c)(ii), the number of share of Voting Stock deemed to be outstanding shall include shares deemed owned through application of paragraph (c)(iii) but shall not include any other shares of Voting Stock which may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options, or otherwise.

(v) "Affiliate" or "Associate" shall have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulation under the Securities Exchange Act of 1934, as in effect on May 5, 1983.

(vi) "Subsidiary" means any corporation of which a majority of any class of equity security is owned, directly or indirectly, by the Corporation; provided, however, that for the purposes of the definition of Related Person set forth in paragraph (c)(ii), the term "Subsidiary" shall mean only a corporation of which a majority of each class of equity security is owned, directly or indirectly, by the Corporation.

(vii) "Continuing Director" means any member of the board of directors of the Corporation (the "Board") who (a) was a member of the Board as of May 5, 1983, or (b) is not affiliated with the Related Person and was a member of the Board prior to the time that the Related Person became a Related Person, or (c) is a successor of a Continuing Director who is unaffiliated with the Related Person and is recommended to succeed a Continuing Director by a majority of Continuing Directors then on the Board.

(viii) "Fair Marker Value" means: (a) in the case of stock, the highest closing sale price during the 30-day period immediately preceding the date in question of a share of such stock on the Composite Tape for New York Stock

Exchange--Listed Stocks, or, if such stock is not quoted on the Composite Tape, on the New York Stock Exchange, or, if such stock is not listed on such Exchange, on the principal United States securities exchange registered under the Securities Exchange Act of 1934 on which such stock is listed, or, if such stock is not listed on any such exchange, the highest closing bid quotation with respect to a share of such stock during the 30-day period preceding the date in question on the National Association of Securities Deals, Inc. Automated Quotations System or any system then in use, or if no such quotations are available, the fair market value on the date in question of a share of such stock as determined by the Board in good faith; and (b) in the case of property other than cash or stock, the fair market value of such property on the date in question as determined by the Board in good faith.

(ix) In the event of any Significant Transaction in which the Corporation survives, the phrase "consideration other than cash to be received" as used in subparagraph (A) of paragraph (b)(ii) of this Article 6 shall include the shares of Common Stock, and/or the shares of any other class of outstanding Voting Stock retained by the holders of such shares.

(x) The Continuing Directors of the Corporation shall have the power and duty to determine for the purposes of this Article 6, on the basis of information known to them after reasonable inquiry, (a) whether a person is a Related Person, (b) the number of shares of Voting Stock beneficially owned by any person, (c) whether a person is an Affiliate or Associate of another, and (d) whether the assets which are the subject of any Significant Transaction have, or the consideration to be received for the issuance or transfer of securities by the Corporation or any Subsidiary in any Significant Transaction has an aggregate Fair Market Value of $1,000,000 or more.

(d) No Effect on Fiduciary Obligations of Related Persons. Nothing contained in this Article 6 shall be construed to relieve any Related Person from any fiduciary obligation imposed by law.

7. Evaluation of Certain Proposals by the Board of Directors. The board of directors of the Corporation, when evaluating any proposal from another party to (a) make a tender offer for securities of the Corporation, (b) merge or consolidate the Corporation with another corporation, (c) purchase or otherwise acquire substantially all of the properties or assets of the Corporation, (d) engage in any transaction of the sort specified in paragraph (a) of Article 6 of these Articles of Incorporation, or (e) engage in any other transaction having a similar effect upon the properties, operations or control of the Corporation, shall, in connection with the exercise of its judgment in determining what is the best interests of the Corporation and its shareholders, give due consideration to the following:

(i) the character, integrity, business philosophy and financial status of the other party or parties to the transaction;

(ii) the consideration to be received by the Corporation or its shareholders in connection with such transaction, as compared to: (a) the current market price or value of the Corporation's properties or securities; (b) the estimated future value of the Corporation, its properties or securities; and (c) such other measures of the

value of the Corporation, its properties or securities as the directors may deem appropriate.

(iii) the projected social, legal and economic effects of the proposed action or transaction upon the Corporation, its employees, suppliers and customers and the communities in which the Corporation does business;

(iv) the general desirability of the Corporation's continuing as an independent entity; and

(v) such other factors as the board of directors may deem relevant.

8. Directors

(a) Number, Election and Term. The number of the directors of the Corporation shall be fixed from time to time by or pursuant to the Bylaws of the Corporation. The directors shall be classified with respect to the time for which they severally hold into three classes, as nearly their equal in number as possible, as shall be provided in the manner specified in the bylaws of the Corporation. At the annual meeting of shareholders held in 1990, one class shall be originally elected for a term expiring at the annual meeting of shareholders to be held in 1991, another class shall be originally elected for a term expiring at the annual meeting of shareholders to be held in 1992, and another class shall be originally elected for a term expiring at the annual meeting of shareholders to be held in 1993, with the members of each class to hold office until their successors are elected and qualified. At each succeeding annual meeting of the shareholders of the Corporation, the successors of the class of directors whose term expires at that meeting shall, subject to paragraph (c) of this Article 8, be elected by plurality vote of all votes cast at such meeting to hold office for a term expiring at the annual meeting of shareholders held in the third year following the year of their election.

(b) Vacancies. Vacancies in the board of directors, including vacancies resulting from an increase in the number of directors, shall be filled only by a majority of the directors then in office, though less than a quorum, and each person so elected shall be a director to serve for the balance of the unexpired term and until his successor is duly elected and qualified.

(c) Cumulative Voting in Certain Circumstances

(i) Except as and to the extent otherwise provided in this paragraph (c) shareholders of the Corporation shall not be entitled to cumulative voting rights in any election of directors of the Corporation.

(ii) There shall be cumulative voting in any election of directors of the Corporation on or after the occurrence of both of the following events:

(A) the public announcement (which, for purposes of this definition, shall include, without limitation, a report filed pursuant to Section 13(d) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), by the Corporation or a 40% Shareholder that a 40% Shareholder has become such.

and

(B) such 40% Shareholder makes, or in any

way participates in, directly or indirectly, any "solicitation" of "proxies" (as such terms are defined or used in Regulation 14A under the Exchange Act) or becomes a "participant" in any "election contest" (as such terms are defined or used in Rule 14a-11 of the Exchange Act) with respect to the Corporation; seeks to advise or influence any person (within the meaning of Section 13(d)(3) of the Exchange Act) with respect to the voting of any securities of the Corporation: or executes any written consent in lieu of a meeting of holders of the Voting Stock.

"40% Shareholder" shall mean any Person who or which, together with all Affiliates and Associate of such Person, shall be the Beneficial Owner of 40% or more of the Voting Stock but shall not include (i) the Corporation, (ii) any wholly owned Subsidiary, (iii) any employee benefit plan of the Corporation or of any Subsidiary, or (iv) any Person holding securities of the Corporation for or pursuant to the terms of any such plan.

Notwithstanding the foregoing, no Person shall become a "40% Shareholder" as the result of an acquisition of Common Stock by the Corporation which, by reducing the number of shares outstanding, increases the proportionate number of shares beneficially owned by such Person to 40% or more of the Voting Stock; provided, however, that if a Person who would otherwise be a 40% Shareholder but for the provisions of this sentence shall, after such share purchases by the Corporation, become the Beneficial Owner of any additional Voting Stock then such Person shall be deemed to be a "40% Shareholder."

(ii) Certain Definitions. For purposes of this Article 8:

"Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in rule 12b-2 of the General Rules and Regulations under the Exchange Act as in effect on May 3, 1990.

A Person shall be deemed the "Beneficial Owner" of and shall be deemed to "beneficially own" any securities:

(A) which such Person or any such Persons's affiliates or Associates beneficially owns, directly or indirectly:

(B) which such Person or any of such Person's Affiliates or Associates has (A) the right to acquire (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding (whether or not in writing), or upon the exercise of conversion rights, exchange rights, rights (other than the Rights granted pursuant to the Flip-In Rights Agreement and Flip-Over-Rights Agreement between the Corporation and American Stock Transfer & Trust Company, dated as of January 16, 1990), warrants or options, or otherwise or (B) the right to vote pursuant to any agreement, arrangement or understanding; provided, however, that a Person shall not be deemed the Beneficial Owner of, or to beneficially own, securities tendered pursuant to a tender or exchange offer made by or on behalf of such Person or any of such Person's Affiliates or Associates until such tendered securities are accepted for purchase or exchange; or

(C) which are beneficially owned, directly or indirectly, by any other Person with which such Person or any of such Person's Affiliates or Associates has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting or disposing of any securities of the Corporation.

"Person" shall mean any individual, firm, corporation or other entity, and shall include any successor (by merger or otherwise) of such entity.

"Subsidiary" shall mean any corporation or other entity of which a majority of the voting power of the voting equity securities or equity interest is owned, directly or indirectly, by the Corporation.

"Voting Stock" means Common Stock and any other securities of the Corporation entitled to vote generally for the election of directors or any security convertible into or exchangeable for or exercisable for the purchase of Common Stock or other securities of the Corporation entitled to vote generally for the election of directors.

9. Vote Required for Amendment of Articles 6, 7, 8 or 9. Any provision in these Articles of Incorporation or in the Bylaws of the Corporation to the contrary notwithstanding, no provisions of Articles 6, 7, 8 or 9 of these Articles shall be altered, amended, supplemented or repealed by the shareholders of the Corporation, and no provision of the Bylaws or of these Articles of Incorporation inconsistent with such provisions shall be adopted by the shareholders of the Corporation, except by the affirmative vote of the holders of at least 80% of the outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, considered for this purpose as one class.

Front Side of Certificate of Stock

Picture of Scientist
in early laboratory scene
FOUNDED IN 1923 BY HERMAN O. WEST

Number Shares

W_____

COMMON STOCK
INCORPORATED UNDER THE LAWS
OF THE COMMONWEALTH OF
PENNSYLVANIA

COMMON STOCK
CUSIP 955306 10 5

WEST PHARMACEUTICAL SERVICES, INC.

This certifies that

SEE REVERSE
FOR CERTAIN
DEFINITIONS

is the owner of

FULLY PAID AND NON-ASSESSABLE SHARES OF THE COMMON STOCK OF THE PAR VALUE OF $.25 PER SHARE OF

West Pharmaceutical Services, Inc. transferable on the books of the corporation by the holder hereof in person or by duly authorized attorney upon surrender of this certificate properly endorsed. This certificate and the shares represented hereby are issued and shall be held subject to all the provisions of (1) the Articles of Incorporation and all amendments thereto and (2) any statement on the reverse side of this certificate.

This certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.
Witness the facsimile seal of the corporation and the facsimile signatures of its duly authorized officers.

Dated:

John R. Gailey
Secretary

Picture of
Company Seal

William G. Little
Chairman of the Board

COUNTERSIGNED AND REGISTERED:
AMERICAN STOCK TRANSFER & TRUST COMPANY
(NEW YORK, N.Y.)
BY TRANSFER AGENT
AND REGISTRAR

AUTHORIZED SIGNATURE

Back side of Certificate of Stock Page 2

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

| | |
|---|---|
| TEN COM - as tenants in common | UNIF GIFT MIN ACT --Custodian -- |
| TEN ENT - as tenants by the entireties | (Cust) (Minor) under Uniform Gifts to Minors Act_____ (State) |
| JT TEN - as joint tenants with right of survivorship and not as tenants in common | |

Additional abbreviations may also be used though not in the above list.

For value received, _____hereby sell, assign and transfer unto

PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF ASSIGNEE_____

_____
(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

_____
_____
_____

of the capital stock represented by the within Certificate, and do hereby irrevocably constitute and appoint
_____ Attorney to transfer the said stock on the books of the within named Corporation with full power of substitution in the premises.

Dated_____

_____
NOTICE: The signature to this agreement must correspond with the name as written upon the face of the certificate in every particular, without alteration or enlargement or any change whatever.

This certificate also evidences and entitles the holder hereof to certain Flip-In Rights as set forth in a Flip-In Rights Agreement between The West Company, Incorporated and American Stock Transfer & Trust Company, as Right Agent, dated as of January 16,



1990 (the "Rights Agreement"), the terms of which are hereby incorporated herein by reference and a copy of which is on file at the principal executive offices of West Pharmaceutical Services, Inc..

Under certain circumstances , as set forth in the Rights Agreement, such Flip-In Rights will be evidenced by separate certificates and will no longer be evidenced by this certificate. The Company will mail to the holder of this certificate a copy of the Rights Agreement, as in effect on the date of mailing, without charge promptly following receipt of a written request therefor.

Under certain circumstances, Flip-In Rights beneficially owned by Acquiring Persons or Associates or Affiliates thereof (as defined in the Rights Agreement) and any subsequent holder of such Flip-In Rights may become null and void.

This certificate also evidences and entitles the holder hereof to certain Flip-Over Rights as set forth in a Flip-Over Rights Agreement between The West Company, Incorporated, and American Stock Transfer & Trust Company, as Rights Agent, dated as of January 16, 1990 (the "Rights Agreement"), the terms of which are hereby incorporated herein by reference and a copy of which is on file at the principal executive offices of the Company.

Under certain circumstances, as set forth in the Rights Agreement, such Flip-Over Rights will be evidenced by separate certificates and will no longer be evidenced by this certificate. The Company will mail to the holder of this certificate a copy of the Rights Agreement, as in effect on the date of mailing, without charge promptly following receipt of a written request therefor.

Exhibit 10 (e)

# West Pharmaceutical Services, Inc.
## Executive Incentive Bonus Plan

The Incentive Bonus Plan is based on the following concepts:

* Excellent service to our customers will create shareholder value.
* Employees must share in the Company's success.
* Earnings per share (EPS) is the measurement of success for the total corporation.

Here's how the plan works:

TARGET BONUS

The target bonus is a specific percentage of your base salary (in effect on December 31 of the prior year) and represents the amount of bonus you will receive if 100% of all performance factors is achieved.

PERFORMANCE FACTORS

There are two performance factors which are used to calculate bonuses:

* 75% of the bonus calculation (referred to as the "EPS Portion") will depend on achievement of the earnings-per-share (EPS) target contained in the Company s business plan for the bonus year.

* 25% of the bonus calculation will be based on the board of directors' evaluation of:

    1. Our success in growing revenues from West's current businesses

    2. Our success in growing West's revenues through new business opportunities (acquisitions, mergers, licensing agreements, etc.)

The EPS Portion of your bonus is tied directly to the percentage achievement of the EPS target. Thus, for example, if the Company achieves 110% of budgeted EPS results, you will receive 110% of your Bonus Portion. Of course, this means that your EPS Portion will be less than 100% if EPS results fall short of budget. There is no "maximum" payout opportunity, but no bonus at all will be paid if EPS does not equal at least 89% of the EPS target.

ILLUSTRATION OF BONUS CALCULATION

An executive earning $120,000, whose target bonus opportunity is 30%, would have his/her bonus calculated as follows if the Company achieves an 101% of budgeted EPS and the Board determines that management has achieved 100% for revenue growth success:

| | Target | | | Bonus | | %Achieved | | Bonus% | | | Bonus$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EPS | 75% | x Bonus | = | Opp. | x | (from scale) | = | Earned | x Salary | = | Earned |
| Rev. Growth | 25% | x Target Bonus | = | Bonus Opp. | x | %Achieved | = | Earned | x Salary | = | Bonus$ Earned |
| EPS | 75% | x 30% | = | 22.5% | x | 101% | = | 22.73% | x 120,000 | = | $27,276 |
| Rev. Growth | 25% | x 30% | = | 7.5% | x | 100% | = | 7.5% | x 120,000 | = | $9,000 |
| | | | | Total Bonus Earned | | | | 30.4% | | = | $36,276 |

BONUS AND INCENTIVE SHARES

You will receive a portion of your annual bonus in shares of the Company's common stock. Here's how this program works:

* Your total bonus award will be calculated applying appropriate tax deductions. 75% of that after-tax amount will be paid in cash (check) and 25% will be paid in shares of the Company s common stock (referred to as Bonus Shares ) based on the fair market value of the shares at the time of award.

* A number of restricted shares (referred to as "Incentive Shares") equal to 25% of the Bonus Shares will also be issued to you at that time.

* The Bonus Shares and Incentive will be deposited into an account in your name with a brokerage firm selected by the Company. You will receive dividends from Bonus Shares and Incentive Shares, which will be automatically reinvested in additional shares of stock.

* The Incentive Shares will vest (i.e., will be yours to keep) at the end of four years from the date of award, so long as you do not sell or transfer your Bonus Shares during that period.

* If you sell the Bonus Shares or leave the Company for any reason other than disability, retirement or death, the Incentive Shares awarded to you will be forfeited.

* If your employment terminates due to death, retirement or disability, the restrictions will lapse and you will be entitled to receive a portion of the Incentive Shares according to the following schedule:

  25% with at least one but less than two years continuous ownership of the Bonus Shares.

  50% with at least two but less than three years continuous ownership of the Bonus Shares.

  75% with at least three but less than four years continuous ownership of the Bonus Shares.

Ownership records will be reviewed annually to verify continuous ownership.

STOCK OWNERSHIP GUIDELINE

Your personal stock ownership guideline is_____% of your base salary and is expected to be achieved in 5-7 years from the year an individual becomes eligible to participate in the Incentive Bonus Plan.

MONITORING OUR PROGRESS

Our progress in achieving the EPS target will be communicated throughout the year, and your manager will review your individual objectives on a quarterly basis.

Use your TQM skills to lead the organization in overachieving our business objectives. You will share in the reward when we succeed.

ELIGIBILITY

Eligibility and the amount and type of awards under this plan are solely at the discretion of management and are not guaranteed under any circumstances. Participants must be active employees on December 31, 1999 to be eligible for bonus payment consideration.

Exhibit 10 (n)

THE WEST COMPANY, INCORPORATED

NON-QUALIFIED DEFERRED COMPENSATION PLAN

FOR

DESIGNATED EXECUTIVE OFFICERS

ADOPTED AUGUST 30, 1994
REFLECTING AMENDMENTS
EFFECTIVE ON MARCH 7, 1995 AND APRIL 28, 1998

# THE WEST COMPANY
# NON-QUALIFIED DEFERRED COMPENSATION
# PLAN FOR DESIGNATED EXECUTIVE OFFICERS

The West Company (the "Company") hereby adopts this Plan to permit designated Executive Officers of the Company to defer receipt of a specified portion of their annual compensation:

1. Eligible Officers: Employees of the Company or its subsidiaries are eligible to make the election set forth in this Plan if they are: (i) employed in the United Sates as an Executive Officer of the company or any of its subsidiaries, and (ii) designated as an eligible Executive Officer by the Compensation Committee.

2. Deferrable Compensation: an eligible Executive Officer may elect to defer any whole percentage of (i) his annual base salary, (ii) cash bonus, or (iii) both ( Compensation ).

3. Election to Defer:

   a) An eligible Executive Officer who desires to defer payment of any portion of his Compensation in any calendar year shall notify the Company s Secretary in writing on or before December 15 of the prior year, stating how much of his Compensation shall be deferred. an election so made shall be irrevocable and shall apply to each calendar year thereafter until the Executive Officer shall, on or before any December 15, notify the Company's Secretary in writing that a different election shall apply to the following calendar years, which election shall likewise continue

in effect until similarly changed. For 1994 only, an eligible Executive Officer may elect to defer compensation earned after the date the Executive Officer notifies the Company s Secretary in writing of the amount of his compensation he elects to defer.

b) notwithstanding Section 3(a) above, if an eligible Executive Officer is hired by the company during a calendar year, the Executive Officer may elect to participate in the Plan by notifying the Company's Secretary in writing before the Executive Officer performs any services for the Company how much of his Compensation shall be deferred. An election so made shall be irrevocable during that calendar year and shall apply to each calendar year thereafter until the Executive Officer changes his election in accordance with the procedure set forth in Section 3(a) above.

c) An eligible Executive Officer who elects to defer Compensation to the Plan during a calendar year shall be deemed to have waived his right to participate in The West Company Savings Plan for that year and, accordingly, shall be ineligible to participate in the Savings Plan.

4. Matching Contributions: The Company will contribute to the Plan an amount equal to 50% of the first 6% of base salary an Executive Officer elects to defer. matching contributions shall not be made for deferrals of base salary in excess of 6% or any portion of a cash bonus deferred by an Executive Officer.

5. Investment of Deferred Compensation Accounts:

a) Allocations: The Company shall establish an "A" Account and a "B" Account for each Executive Officer contributing to the Plan. an Executive Officer's Compensation deferred pursuant to Paragraph 3 during a month shall be allocated to his A Account as of the last day of the payroll period to which they relate. company matching contributions made pursuant to Paragraph 4 during a month shall be allocated to his "B" Account as of the last day of the payroll period to which they relate.

b) Investment: Each Executive Officer shall direct the investment of his "A" Account and "B" Account among the Investment Funds offered under the Plan by complying with administrative procedures established by the Company. An Executive Officer's election shall specify the whole percentage of his "A" Account and B Account to be invested in an Investment Fund. an Executive Officer s election shall remain in effect until a new election is made. an Executive Officer may change an election of Investment Funds or transfer existing Account balances among Investment Funds once per month by complying with the administrative procedures established by the company. The Company shall establish procedures to review the investment elections made by an Executive Officer and shall retain the authority to override any investment election if it determines, in its sole discretion, that such an override is in the Company s best interests.

c) Investment Funds. An Executive Officer may invest amounts credited to his "A" Account and "B" Account among the Investment Funds selected by the company. The Company shall make available to each Executive Officer literature summarizing the investment characteristics of each Investment Fund.

d) Valuation of Participant Accounts. Any increase or decrease in the fair market value of an Investment Fund shall be computed and credited to or deducted from the Accounts of all Executive Officers who invested in the Investment Fund in accordance with policies and procedures established by the Company.

e) Indemnity. By electing to defer Compensation pursuant to the Plan, each Executive Officer hereby recognizes and agrees that the Company and any other individual responsible for administering the Plan (including the Company's Secretary or any trustee responsible for holding assets under the Plan) (collectively, the "Administrators') are in no way responsible for the investment performance of the Executive Officer's Account.

6. Vesting:

a) Regular Vesting: An Executive Officer shall always be 100% vested in the Compensation deferred pursuant to Paragraph 3. An Executive Officer shall be 40% vested in matching contribution made on his behalf under Paragraph 4 after two years of employment with the company or any of its subsidiaries. An Executive Officer s vested interest in such matching contributions will increase by 20% per year of employment, so that he is 100% vested after five years of employment with the Company or any of its subsidiaries. A "year of employment" will be credited to an Executive Officer for each 12 month period, beginning on his date of hire by the Company or any of its subsidiaries (and each anniversary thereof), during which he is continuously employed by the company or any of its subsidiaries.

b)

1) Notwithstanding Paragraph 6(a) above, an Executive Officer shall immediately be 100% vested in matching contributions made pursuant to Paragraph 4 after a Change in Control, as defined below.

ii) A "Change in Control" shall mean a change in control of a nature that would be required to be reported in response to Item 1 of the Current Report on Form 8-K as in effect on April 28, 1998 pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Act"), provided, that, without limitation, a Change in Control shall be deemed to have occurred if:

a) any "Person" (as such term is used in Sections 13(d) and 14(d) of the Act), other than:

(1) the Company,

(2) any Person who on the date hereof is a director or officer of the Company, or

(3) a trustee or fiduciary holding securities under an employee benefit plan of the Company,

b) is or becomes the "beneficial owner," (as defined in Rule 13-d3 under the Act), directly or indirectly, of securities of the Company

representing more than 50% of the combined voting power of the Company's then outstanding securities; or

c) during any period of two consecutive years during the term of this Agreement, individuals who at the beginning of such period constitute the board of directors of the Company cease for any reason to constitute at least a majority thereof, unless the election of each director who was not a director at the beginning of such period has been approved in advance by directors representing at least two-thirds of the directors then in office who were directors at the beginning of the period; or

d) the shareholders of the Company approve: (i) a plan of complete liquidation of the Company; or (ii) an agreement for the sale or disposition of all or substantially all of the Company's assets; or (iii) a merger, consolidation, or reorganization of the Company with or involving any other corporation, other than a merger, consolidation, or reorganization that would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity), at least fifty percent (50%) of the combined voting power of the voting securities of the Company (or the surviving entity, or an entity which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) outstanding immediately after such merger, consolidation, or reorganization.

7. Payment of Deferred Compensation:

a) Distribution Event: an Executive Officer s Accounts (or relevant portion thereof) shall be distributed as soon as reasonably feasible after the appropriate Valuation Date following a Distribution Event. The following events, and no others, shall constitute Distribution Events:

i) For allocations to an Executive Officer's "A" Account and "B" Account, the termination of his employment with the Company and all of its subsidiaries for any reason, including retirement, death or disability;

ii) For allocations to an Executive Officer's "A" Account during each calendar year, the fifth anniversary of the end of that year unless the Executive Officer elects (by informing the Company s Secretary) before the fourth anniversary of the end of that year to defer the distribution

to a later, specified date (in which case the distribution shall be made on the date specified by the Executive Officer); or

iii) For allocations to an Executive Officer's "A" Account, the determination by the company

Committee that the Executive Officer has incurred a hardship. For purposes of this Paragraph, a "Hardship" is a financial burden of the general type described in Section 10.2 of The West Company Savings Plan that cannot reasonably be relieved through use of the Executive Officer s personal assets. To apply for a Hardship distribution, an Executive Officer must submit a written application to the Company's Secretary indicating (i) the nature of the hardship, (ii) the amount the Executive Officer needed to alleviate the hardship, and (iii) the Account from which a distribution, if approved, shall be made. The Compensation Committee shall have complete and unfettered discretion to approve or deny, for any or no reason, any application for a hardship distribution submitted by an Executive Officer.

Amounts allocated to an Executive Officer s B Account shall not be available for distribution under Paragraphs &(a)(ii) and (iii).

b) Valuing Accounts for Distributions: The value of an Executive Officer s "A" Account and "B" Account shall be determined as of the effective date of a distribution from the Plan (the "Valuation Date"), which shall be a date selected by the Company within a administratively reasonable time period following a Distribution Event. The relevant portion of an Executive Officer's Account shall then be distributed in accordance with this Paragraph 7.

c) Form of Distribution: Except as otherwise provided, all distributions from the Plan shall be made in a cash lump sum. For amounts payable upon termination of employment pursuant to Paragraph 7(a)(i), an Executive Officer may receive the distribution in a lump sum or in five equal annual installments. If an installment distribution is elected, the first installment shall be paid on the January 15 immediately following the Executive's termination from employment, and the others on January 15 of the second, third, fourth and fifth years following such termination. The Executive Officer shall continue to direct the investment of any amount remaining in his Account and the second to fifth installments shall be adjusted to take into account any earnings or losses.

At the time the Executive Officer elects to defer Compensation pursuant to Paragraph 3, he shall elect whether a distribution pursuant to Paragraph 7(a)(i) shall be made in a cash lump sum or in five equal annual installments. This election shall continue in effect until changed by the Executive Officer, provided that any such change shall be effective only if the Executive Officer submits appropriate instructions, in accordance with administrative procedures established by the Company, by December 15 of the year prior to the year in the Executive Officer becomes entitled to a distribution.

8. Designation of Beneficiary: If a Executive Officer dies prior to receiving the entire balance of his Account, any balance remaining in his Account shall be paid in a lump sum to the Executive Officer s designated beneficiary, or if the Executive Officer has not designated a beneficiary in writing to the company s Secretary, to his estate. Any designation of beneficiary may be revoked or modified at any time by the Executive Officer.

9. Unsecured Obligation of Company: The Company's obligations t establish and maintain Accounts for each eligible electing Executive Officer and to make payments of deferred compensation to him under this Plan shall be the general unsecured obligations of the Company. the Company shall be under no obligation to establish any separate fund, purchase any annuity contract, or in any other way make special provision or specifically earmark any funds for the payment of any amounts called for under this Plan, nor shall this Plan or any actions taken under or pursuant to this Plan be construed to create a trust of any kind, or a fiduciary relationship between the Company and any eligible Executive Officer, his designated beneficiary, executors or administrators, or any other person or entity. If the Company chooses to establish such a fund or purchase such an annuity contract or make any other arrangement to provide for the payment of any amounts called for under this Plan, such fund contract or arrangement shall remain part of the general assets of the Company, and no person claiming benefits under this Plan shall have any right, title, or interest in or to any such fund, contract or arrangement.

10. Withholding of Taxes: The rights of a Executive Officer (and his beneficiaries) to payments under this plan shall be subject to the Company s obligations at any time to withhold from such payments for any income or other tax on such payments.

11. Assignability: No portion of a Executive Officer's Account may be assigned or transferred in any manner, nor shall any Account be subject to anticipation or to voluntary or involuntary alienation.

12. Amendments and Termination: This Plan may be amended by a Committee of the Board of Directors consisting only of Directors not eligible to defer compensation under this Plan. This Plan may be terminated at any time by the Board of Directors. No amendment or termination may adversely affect a Executive Officer's Account existing on the date such amendment or termination is made, nor any election previously made under the Plan as to compensation for the calendar year in which the amendment or termination occurs.

13. Effective Date: The Plan shall be effective with respect to Executive Officer s Compensation earnedafter August 30,1994. Certified True and Correct Copy of the Plan as Amended Through April 28, 1998.

[CORPORATE SEAL] THE WEST COMPANY, INCORPORATED

By: _____
John R. Gailey III, Secretary

Exhibit 10 (o)

THE WEST COMPANY, INCORPORATED

NON-QUALIFIED DEFERRED COMPENSATION PLAN

FOR

OUTSIDE DIRECTORS

ADOPTED APRIL 23, 1990
REFLECTING AMENDMENT
EFFECTIVE ON APRIL 28, 1998

# THE WEST COMPANY, INCORPORATED
# NON-QUALIFIED DEFERRED COMPENSATION PLAN
# FOR OUTSIDE DIRECTORS

The West Company (the "Company") hereby adopts this Plan to defer receipt of all or a portion of the Directors' Fees payable to its eligible directors:

1. Eligible Directors. Directors of the Company eligible to make the election set forth in this Plan shall be those Directors who are not officers or employees of the Company or any of its subsidiaries.

2. Deferrable Compensation. An eligible Director may elect to defer all or any part or none of the compensation payable to him by the Company for services rendered as a director ("Directors' Fees").

3. Election to Defer. An eligible Director who desires to defer payment of his Directors' Fees in any calendar year shall notify the Company's Secretary in writing on or before December 15 of the prior year, stating how much of his Directors' Fees shall be deferred. An election so made shall be irrevocable and shall apply to each calendar year thereafter until the Director shall, on or before any December 15, notify the Company s Secretary in writing that a different election shall apply to the following calendar years, which election shall likewise continue in effect until similarly changed.

4. Non-Deferred Compensation. Any Directors Fees that are not deferred under this Plan shall be paid in accordance with normal Company policy.

5. Deferred Compensation Accounts.

(a) Credits. At the time that a Director makes an election to defer pursuant to Paragraph 3 above, he shall also indicate whether the amount he chooses to defer shall be credited to an A Account or to a "B" Account, as described below. The Company shall then establish such an Account for that Director.

(i) "A' Account. If a Director elects an A Account, his account shall be credited on the last business day of each calendar quarter with the amount of his Directors' Fees earned during that quarter but deferred pursuant to Paragraph 3.

(ii) "B" Account. If a Director elects a "B" Account, his account shall be credited on the last business day of each calendar quarter with a number of shares equal to that number (including fractions) obtained by dividing the amount of his Directors' Fees earned during that quarter but deferred pursuant to Paragraph 3, by the fair market value of the Company's common stock ("Stock Equivalents"). Fair market value shall be equal to the mean between the high and low prices at which such shares were traded on the New York Stock Exchange ("NYSE") on the last business day of such calendar quarter, or if no sales were quoted on such date, on the most recent preceding date on which sales were quoted.

(b) Earnings. In addition, the Company shall credit the indicated Account as follows:

(i) "A" Account. As of January 1, April 1, July 1, and October 1 of each year, the Company shall credit, as earnings, to each A Account established on behalf of a Director, an amount equal to a percentage of the balance in each such A Account at the end of the preceding calendar quarter, determined without regard to any addition made to such A Account as of the last business day of that calendar quarter. Such percentage shall be equal to one-fourth of the prime rate of interest at Fidelity Bank in effect on the last day of such quarter.

(ii) "B" Account. As of January 1, April 1, July 1, and October 1 of each year, the Company shall credit, as earnings, to each "B" Account, an amount equal to the cash dividends paid during the preceding calendar quarter with respect to that number of shares of its common stock equal to the number of Stock Equivalents in the "B" Account on the relevant dividend record dates. The amount so credited shall then be converted into Stock Equivalents in the manner described earlier using the last day of such preceding calendar quarter as the valuation date.

In the event of any change in the common stock of the Company by reason of any stock dividend, recapitalization, reorganization, merger, consolidation, split-up, combination or exchange of shares, or rights offering to purchase common stock at a price substantially below fair market value, or of any similar change affecting the common stock, the value and attributes of each Stock Equivalent shall be appropriately adjusted consistent with such change to the same extent as if such Stock Equivalents were, instead, issued and outstanding shares of common stock of the Company.

(c) (i) In the event of a Change in Control (as defined herein), the full value of any Director's "B" Account shall be credited to an "A" Account for that Director. The value of the B Account shall be determined using the Fair Market Value (as defined in Paragraph 5(a)(ii) hereof) of the Company's common stock on the day before the effective date of the Change in Control.

(ii) A "Change in Control" shall mean a change in control of a nature that would be required to be reported in response to Item 1 of the Current Report on Form 8-K as in effect on April 28, 1998 pursuant to Section 13 or 15(d) of the

Securities Exchange Act of 1934, as amended (the "Act"), provided, that, without limitation, a Change in Control shall be deemed to have occurred if:

(A) any "Person" (as such term is used in Sections 13(d) and 14(d) of the Act), other than:

(1) the Company,

(2) any Person who on the date hereof is a director or officer of the Company, or

(3) a trustee or fiduciary holding securities under an employee benefit plan of the Company,is or becomes the "beneficial owner," (as defined in Rule 13-d3 under the Act), directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities; or

(B) during any period of two consecutive years during the term of this Agreement, individuals who at the beginning of such period constitute the board of directors of the Company cease for any reason to constitute at least a majority thereof, unless the election of each director who was not a director at the beginning of such period has been approved in advance by directors representing at least two-thirds of the directors then in office who were directors at the beginning of the period; or

(C) the shareholders of the Company approve: (A) a plan of complete liquidation of the Company; or (B) an agreement for the sale or disposition of all or substantially all of the Company's assets; or (C) a merger, consolidation, or reorganization of the Company with or involving any other corporation, other than a merger, consolidation, or reorganization that would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity), at least fifty percent (50%) of the combined voting power of the voting securities of the Company (or the surviving entity, or an entity which as a result of such transaction owns the Company or all or substantially all of the Company s assets either directly or through one or more subsidiaries) outstanding immediately after such merger, consolidation, or reorganization.

6. Payment of Deferred Compensation. The balance in a Director's Account shall be determined on the first day of the calendar quarter following the calendar quarter in which he ceases to be a Director of the Company, whether by reason of death, resignation, removal, failure of re-election, or otherwise ("Termination Date"). The balance in a Director's "A" Account shall be the dollar amount credited to such Account as of the Termination Date. The balance in a Director's "B" Account shall be the dollar amount that would be derived if shares of common stock of the Company equal in number to the Stock Equivalents credited to such Account as of Termination Date were sold at fair market value.

The balance in a Director's Account as determined in

the preceding paragraph shall be paid to him in cash in a lump sum payable during the month following the Termination Date, provided that an election to receive a lump sum is made no later than at the time he makes his election to defer pursuant to Paragraph 3 above.

If no election to receive a lump sum as described in the preceding paragraph is made, a Director shall receive the balance in his Account in five equal installments, the first on the January 15 immediately following the Termination Date, and the others on January 15 of the second, third, fourth and fifth years following the Termination Date. The second to fifth installments shall be increased by earnings that would have been credited to the remaining balance if it had been held in an "A" Account during the year.

7. Designation of Beneficiary. If a Director dies prior to receiving the entire balance of his Account, any balance remaining in his Account shall be paid in a lump sum to the Director's designated beneficiary, or if the Director has not designated a beneficiary in writing to the Company's Secretary, to his estate. Any designation of beneficiary may be revoked or modified at any time by the Director.

8. Unsecured Obligation of Company. The Company's obligations to establish and maintain Accounts for each eligible electing Director and to make payments of deferred compensation to him under this Plan shall be the general unsecured obligations of the Company. The Company shall be under no obligation to establish any separate fund, purchase any annuity contract, or in any other way make special provision or specifically earmark any funds for the payment of any amounts called for under this Plan, nor shall this Plan or any actions taken under or pursuant to this Plan be construed to create a trust of any kind, or a fiduciary relationship between the Company and any eligible Director, his designated beneficiary, executors or administrators, or any other person or entity. If the Company chooses to establish such a fund or purchase such an annuity contract or make any other arrangement to provide for the payment of any amounts called for under this Plan, such fund contract or arrangement shall remain part of the general assets of the Company, and no person claiming benefits under this Plan shall have any right, title, or interest in or to any such fund, contract or arrangement.

9. Withholding of Taxes. The rights of a Director to payments under this Plan shall be subject to the Company's obligations at any time to withhold from such payments for any income or other tax on such payments.

10. Assignability. No portion of a Director's Account may be assigned or transferred in any manner, nor shall any Account be subject to anticipation or to voluntary or involuntary alienation.

11. Amendments and Termination. This Plan may be amended by a Committee of the Board of Directors consisting only of Directors not eligible to defer compensation under this Plan. This Plan may be terminated at any time by the Board of Directors. No amendment or termination may adversely affect a Director's Account existing on the date such amendment or termination is made, nor any election previously made under the Plan as to compensation for the calendar year in which the amendment or termination occurs.

12. Effective Date. The Plan shall be effective with respect to Director s Fees payable by the Company after December 31, 1984.

* * * *

Certified True and Correct Copy of the Plan as Amended Through April 28, 1998.

[CORPORATE SEAL] THE WEST COMPANY, INCORPORATED

Date: October 19, 1998 By: John R. Gailey III
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John R. Gailey III
Vice President, General Counsel and Secretary

Exhibit 10 (v)

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ASSET PURCHASE AGREEMENT

Among

COLLABORATIVE CLINICAL RESEARCH, INC.,
GFI PHARMACEUTICAL SERVICES, INC., and
COLLABORATIVE HOLDINGS, INC.

and

THE WEST COMPANY, INCORPORATED

DATED: December 21, 1998

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# ASSET PURCHASE AGREEMENT

THIS ASSET PURCHASE AGREEMENT (the "Agreement") is made this 21st day of December, 1998, by and among THE WEST COMPANY, INCORPORATED, a Pennsylvania corporation (the "Buyer"), and COLLABORATIVE CLINICAL RESEARCH, INC., an Ohio corporation, ("Collaborative"), GFI PHARMACEUTICAL SERVICES, INC., an Indiana corporation and a wholly-owned subsidiary of Collaborative ("GFI"), and COLLABORATIVE HOLDINGS, INC., an Ohio corporation and a wholly-owned subsidiary of Collaborative ("CHI") (Collaborative, GFI, and CHI being each sometimes individually referred to herein as a "Seller" and being collectively referred to as the "Sellers"; GFI and CHI are sometimes collectively referred to herein as the "Selling Subsidiaries").

## RECITALS

A. The Sellers are engaged in various businesses, including the business of providing clinical research and "over-the-counter" drug testing and related services (such business, as heretofore conducted by Collaborative and the Selling Subsidiaries, being collectively referred to herein as the "Clinical Business"). The Sellers also engage in activities other than the Clinical Business.

B. The Sellers desire to sell, and Buyer desires to purchase, substantially all of the assets of the Sellers relating to or used in the Clinical Business for the consideration and on the terms set forth in this Agreement.

C. Buyer is not assuming any liabilities or obligations of or relating to any Seller or the Business except as expressly provided in this Agreement, and the parties do not intend in any way to effectuate a merger or consolidation.

## AGREEMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, each intending to be legally bound, hereby agree as follows:

1. DEFINITIONS; GENERAL PROVISIONS.

1.1 For purposes of this Agreement and the Exhibits and Schedules attached hereto, the following terms shall have the

meanings specified or referred to below in this Section 1:

"ACQUIRED ASSETS" - As defined in Exhibit A.

"ACQUISITION PROPOSAL" - As defined in Section 5.6(a).

"ASSIGNED CONTRACT" - Any Contract which is designated as an "Assigned Contract" in Exhibit A and assigned to Buyer by Seller.

"ASSIGNMENT AND ASSUMPTION AGREEMENT" - As defined in Section 2.6(b)(ii)

"ASSUMED LIABILITIES" - As defined in Exhibit B.

"BASE AMOUNT" - As defined in Section 2.3(a).

"BREACH" - A "BREACH" of a representation, warranty, covenant, obligation or other provision of this Agreement or any Related Agreement will be deemed to have occurred if there is or has been (a) any inaccuracy in or breach of, or any failure to perform or comply with, such representation, warranty, covenant, obligation or other provision, or (b) any claim or other occurrence or circumstance that is or was inconsistent with such representation, warranty, covenant, obligation or other provision, and the term "Breach" means any such inaccuracy, breach, failure, claim, occurrence, or circumstance.

"BUYER" - As defined in the heading of this Agreement.

"CHI" - As defined in the heading of this Agreement.

"CHI FACILITY" - The laboratory and related facilities leased by and operated by the WCE division of CHI and situate at 6963 Hillsdale Court, Building 46250, Indianapolis, Indiana 32796.

"CLINICAL BUSINESS" - As defined in Paragraph A of the Recitals.

"CLOSING" - As defined in Section 2.7.

"CLOSING CASH PAYMENT" - As defined as Section 2.3(d)(i).

"CLOSING DATE" - The date and time as of which the Closing actually takes place.

"CLOSING DATE NET WORKING CAPITAL" - The Net Working Capital as of the Closing Date, as determined by reference to the Final Closing Date Balance Sheet.

"CODE" - The Internal Revenue Code of 1986, as amended, or any successor law, and any regulations issued by the IRS pursuant to the Internal Revenue Code of 1986, as amended, or any successor law.

"COLLABORATIVE" - As defined in the heading of this Agreement.

"COLLABORATIVE BOARD" - The Board of Directors of Collaborative.

"COLLABORATIVE PREMISES" - Collectively the office space leased by Collaborative and situate in the Tower Building, 20600 Chagrin Boulevard, Suite 1050, Cleveland, Ohio 44122.

"CONFIDENTIALLY AGREEMENT" - The confidentiality agreement dated as of July 31, 1998, among the Buyer and the Sellers.

"CONSENT" - Any approval, consent, ratification, waiver, or other authorization (including any Governmental Authorization).

"CONTEMPLATED TRANSACTIONS" - All of the transactions described in this Agreement and each of the Related Agreements.

"CONTRACT" - Any agreement, contract, obligation, promise, undertaking, letter of intent, or memorandum of understanding (whether written or oral and whether express or implied) that is legally binding.

"CURRENT ASSETS" - At any applicable time, all assets included in the Acquired Assets which, in accordance with GAAP, should be classified as current assets of Sellers (after eliminating inter-company items).

"CURRENT LIABILITIES" - At any applicable time, all liabilities included in the Assumed Liabilities which, in accordance with GAAP, should be classified as current liabilities of Sellers.

"DAMAGES" - As defined in Section 10.2.

"DATATRAK" - DataTRAK, Inc., an Ohio corporation and wholly-owned subsidiary of Collaborative.

"EMPLOYEE BENEFIT PLANS" - All "Plans" (as defined in ERISA 3(3)) of which Seller is or was a "Plan Sponsor" or to

which Seller otherwise contributes or has contributed or in which Seller otherwise participates or has participated.

"ENCUMBRANCE" - Any charge, claim, community property interest, condition, equitable interest, lien, option, pledge, security interest, right of first refusal or restriction of any kind.

"ENVIRONMENTAL, HEALTH AND SAFETY LIABILITIES" - Any Damages, Liabilities, or other responsibility arising from or under any Environmental Law or Occupational Safety and Health Law.

"ENVIRONMENTAL LAWS" - All Legal Requirements (including rules, regulations, codes, plans, injunctions, judgments, Orders, policies, decrees, rulings and charges thereunder) concerning pollution or protection of the environment, including laws relating to emissions, discharges, Releases, or threatened Releases of pollutants, contaminants, or Hazardous Materials into ambient air, surface water, groundwater, or lands or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or

handling of Hazardous Materials, including, but not limited to, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. '' 9601 et seq., the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. '' 1001 et seq., the Resource Conservation and Recovery Act of 1976, 42 C.S.C. '' 6901 et seq., each as amended from time to time.

"ERISA" - The Employee Retirement Income Security Act of 1974 or any successor law, and regulations and rules issued pursuant thereto or to any successor law.

"ESCROW AGREEMENT" - The Escrow Agreement among Buyer, Sellers, and Escrow Holder, the form of which is attached hereto as Exhibit C.

"ESCROW DEPOSIT" - As defined in Section 2.3(d)(ii).

"ESCROW HOLDER" - An independent third party jointly selected by the Buyer and the Sellers prior to the Closing Date to serve as the escrow holder pursuant to the Escrow Agreement.

"ESTIMATED CLOSING DATE NET WORKING CAPITAL" - As defined in Section 2.3(b).

"ESTIMATED PURCHASE PRICE" - As defined in Section 2.3(a).

"EXCLUDED ASSETS" - As defined in Exhibit D.

"EXCLUDED LIABILITIES" - As defined in Section 2.2.

"EXPENSE FEE" - As defined in Section 9.3.

"FACILITIES" - Any real property, leaseholds, or other interests currently owned or operated by any Seller and used in connection with the Clinical Business, and any buildings, plants, structures or equipment currently owned, leased or operated by any Sellers and used in connection with the Clinical Business or which otherwise comprise a part of the Clinical Business (including, but not limited to, the Leased Properties).

"FDA" - The United States Food and Drug Administration, together with any department thereof.

"FINAL CLOSING DATE STATEMENT" - As defined in Section 2.4(a).

"FINANCIAL STATEMENTS" - Collectively, the Prior Financial Statements and the Interim Financial Statements.

"GAAP" - At any particular time, generally accepted accounting principles as in effect in the United States at such time.

"GFI" - As defined in the heading of this Agreement.

"GFI FACILITY" - Collectively, the clinical and laboratory testing facility leased by GFI and situate in the Saint Mary's Medical Center, 800 Saint Mary's Drive, Evansville, Indiana 47714.

"GOVERNMENTAL AUTHORIZATION" - Any Consent, license or

permit issued, granted or given by or under the authority of any Governmental Body or pursuant to any Legal Requirement.

"GOVERNMENTAL BODY" - Any federal, state, local, municipal, foreign or other governmental or quasi-governmental entity or authority of any nature (including, without limitation, the FDA).

"HAZARDOUS MATERIALS" - Any pollutants, contaminants, toxic or hazardous or extremely hazardous substances, materials, wastes, constituents, compounds, chemicals, natural or man-made elements or forces (including, but not limited to, petroleum or any byproducts or fractions thereof, any form of natural gas,

Bevill Amendment materials, lead, asbestos, and asbestos-containing materials, building construction materials and debris, polychlorinated biphenyls ("PCBs") and PCB-containing equipment, radon and other radioactive elements, ionizing radiation, electromagnetic field radiation and other non-ionizing radiation, sonic forces and other natural forces, infectious, carcinogenic, mutagenic, or etiologic agents, pesticides, defoliants, explosives, flammables, corrosives, and urea formaldehyde foam insulation) that is now or has heretofore been regulated by or may now form the basis for Liabilities under, any Environmental Laws, whether or not listed or classified in any Environmental Laws.

"HSR ACT" - The Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

"INDEMNIFIED PERSONS" - As defined in Section 10.2.

"INTELLECTUAL PROPERTY ASSETS" - As defined in Section 3.19.

"INTERIM BALANCE SHEET" - As defined in Section 3.5(a).

"INTERIM FINANCIAL STATEMENTS" - As defined in Section 3.3(a)(ii).

"IRS" - The Internal Revenue Service.

"KNOWLEDGE" - An individual will be deemed to have "Knowledge" of a particular fact or matter if:

(a) such individual is aware of such fact or other matter; or

(b) a prudent individual could be expected to discover or otherwise become aware of such fact or other matter in the course of conducting a reasonably comprehensive investigation concerning the existence of such fact or other matter.

A Seller will be deemed to have "Knowledge" of a particular fact or other matter if any of the following Persons has, or at any time had, Knowledge of such fact or other matter: (1) any individual who, as of the date hereof and during any period hereafter through and including the Closing Date, is serving as a director or officer of any Seller; or (2) any member of Sellers' management identified on Schedule A hereto.

"LAB SERVICE CONTRACT" - Any Contract to which any

Seller is a party relating to laboratory and related services utilized in connection with clinical research studies conducted.

"LEASED PROPERTIES" and "LEASED PROPERTY" - Collectively or individually, as appropriate, the Collaborative Premises, the GFI Facility, and the CHI Facility.

"LEASES" and "LEASE" - Collectively or individually, as appropriate, the leases relating to the Leased Properties and more particularly described in EXHIBIT A.

"LEGAL REQUIREMENT" - Any federal, state, local, municipal, foreign, international, multi-national, or other law, ordinance, regulation, statute or treaty (including, without limitation, rules and regulations promulgated by the FDA).

"LIABILITIES" - Any debts, obligations, or liabilities of any nature (including, but not limited to, any unknown, undisclosed, unaccrued, unasserted, contingent, or conditional debt, obligation, or liability), regardless of whether such debts, obligations, or liabilities would be required to be disclosed on a balance sheet prepared in accordance with GAAP.

"MARKS" - As defined in Section 3.19(a).

"MATERIAL ADVERSE EFFECT" - A material adverse effect upon the financial condition of any Seller or the Clinical Business.

"NET WORKING CAPITAL" - As at any applicable time, (i) Current Assets minus (ii) Current Liabilities.

"NON-COMPETITION AGREEMENT" - As defined in Section 2.6(a)(i).

"OCCUPATIONAL SAFETY AND HEALTH LAW" - Any Legal Requirement designed to provide safe and healthful working conditions, and to reduce occupational safety and health hazards, and any program, whether governmental or private, designed to provide safe and healthful working conditions.

"ORDER" - Any award, decision, injunction, judgment, order, ruling, subpoena, or verdict entered, issued, made, or rendered by any court, administrative agency, or other Governmental Body or by any arbitrator.

"ORDINARY COURSE OF CLINICAL BUSINESS" - An action taken by a Person will be deemed to have been taken in the "Ordinary Course of Clinical Business" only if:

(a) such action is consistent with the past practices of such Person and is taken in the ordinary course of the normal operations of such Person;

(b) such action is not required to be authorized by the board of directors of such Person (or by any Person or group of Persons exercising similar authority), and does not require any other separate or special authorization; and

(c) such action is similar in nature and magnitude to actions customarily taken, without any separate or special authorization, in the ordinary course of the operations of other Persons that are engaged in the same type or line of business as such Person.

"PATENTS" - As defined in Section 3.19(a)(ii).

"PERSON" - Any individual, corporation, general or limited partnership, limited liability company, joint venture, estate, trust, association, organization, or other entity or Governmental Body.

"PRIOR FINANCIAL STATEMENTS" - As defined in Section 3.3(a)(i).

"PROCEEDING" - Any action, arbitration, audit, hearing, investigation, litigation, or suit (whether civil, criminal, administrative, investigative or informal) commenced, brought, conducted, or heard by or before, or otherwise involving, any Governmental Body or arbitrator.

"PURCHASE PRICE" - As defined in Section 2.3(a).

"RELATED AGREEMENTS" - All agreements, documents, certificates and instruments to be delivered pursuant to this Agreement or the Contemplated Transactions, including, without limitation, the Assignment and Assumption Agreement, the Escrow Agreement, the Non-Competition Agreement, the Sublease Agreement, and the Seller Agreements.

"RELATED PERSON" - With respect to a particular individual shall mean:

(a) each other member of such individual's family;

(b) any Person that is directly or indirectly controlled by any one or more members of such individual's family;

(c) any Person in which members of such individual's family hold (individually or in the aggregate) a material interest; and

(d) any Person with respect to which one or more members of such individual's family serves as a director, officer, partner, or trustee (or in a similar capacity).

With respect to a specified Person other than an individual shall mean:

(a) any Person that directly or indirectly controls, is directly or indirectly controlled by, or is directly or indirectly under common control with such specified Person;

(b) each Person that serves as a director, officer, partner, or trustee of such specified Person (or in a similar capacity); and

(c) any Person in which specified Person holds a material interest.

"RELEASE" - Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, ejecting, escaping, dumping or other dissemination.

"REPRESENTATIVE" - With respect to a particular Person, any director, officer, employee, agent, consultant, advisor, or other representative of such Person, including legal counsel, accountants and financial advisors.

"SEC" - The Securities Exchange Commission, or any successor agency.

"SELLERS" and "SELLER" - As defined in the heading of this Agreement.

"SELLER AGREEMENTS" - As defined in Section 2.6(a)(ii).

"SELLING SUBSIDIARIES" - As defined in the heading of this Agreement.

"SITE CONTRACTS" - Collectively, any Contract to which any Seller is a party with hospitals, physicians, clinics, and other sites, pursuant to which such sites conduct clinical studies for and on behalf of such Seller.

"SPONSOR" - Collectively, each pharmaceutical company, biotechnology company, and contract research organization which is a party to the Sponsor Contracts.

"SPONSOR CONTRACTS" - Collectively, any Contract to which any Seller is a party with a pharmaceutical company, biotechnology company, and contract research organization, pursuant to which such Seller has agreed to provide, or cause to be provided, clinical studies for and on behalf of such company or organization.

"SUBLEASE AGREEMENT" - As defined in Section 2.6(a)(ix).

"SUPERIOR PROPOSAL" - As defined in Section 5.6(b).

"SUPPLEMENTAL CLOSING" - As defined in Section 2.4(c).

"TAX" - Any tax, levy, assessment, tariff, duty, deficiency or other fee, and any related charge or amount imposed, assessed or collected by or under the authority of any Governmental Body.

"TAX ALLOCATION" - The manner in which the Purchase Price is allocated among the Acquired Assets pursuant to Section 2.7.

"TAX RETURN" - Any return, report, form or other document or information filed with or submitted to, or required to be filed with or submitted to, any Governmental Body in connection with the determination, assessment, collection, or payment of any Tax.

"TERMINATION FEE" - As defined in Section 9.3.

"THREATENED" - A Proceeding, claim, dispute or other matter will be deemed to have been "Threatened" if any demand or statement has been made (orally or in writing) or any notice has been given (orally or in writing), or if any other event has occurred or any other circumstances exist, which could reasonably be expected to result in such a Proceeding, claim, dispute or other matter.

"34 ACT" - The Securities Exchange Act of 1934, as amended, and all rules and regulations promulgated thereunder.

"THRESHOLD AMOUNT" - As defined in Section 10.5(b).

"UNCOLLECTED RECEIVABLES" - As defined in Section 2.5.

"WARN" - The Worker Adjustment and Retraining Notification Act (29 U.S.C. '' 2101 et seq.) and the regulations adopted pursuant thereto.

1.2 General Provisions; Incorporation of Recitals.

(a) Unless expressly provided otherwise in this Agreement or the Related Agreements, or unless the context requires otherwise:

(i) all capitalized terms used in the Related Agreements that are defined in this Agreement shall have the respective meanings assigned to them herein;

(ii) all accounting terms used in this Agreement and in the Related Agreements shall have the meanings given to them in accordance with GAAP;

(iii) the singular shall mean the plural, the plural shall mean the singular, and the use of any gender shall include all genders; and all references to any particular party defined herein shall be deemed to refer to each and every Person defined herein as such party individually, and to all of them, collectively, jointly and severally, as though each were named wherever the applicable defined term is used;

(iv) all references to "Sections" shall be deemed to refer to the provision of this Agreement and all references to "Schedules" and "Exhibits" shall be deemed to refer to the schedules and exhibits annexed to this Agreement, as appropriate;

(v) all references to time herein shall mean Eastern Standard Time or Eastern Daylight Time, as then in effect; and

(vi) all references to sections, subsections, paragraphs or other provisions of any Legal Requirement that consists of a law, ordinance, regulation, statute or treaty, shall be deemed to include successor, amended, renumbered and replacement provisions thereof.

(vii) the word "including" shall not limit the preceding words or terms.

(b) The recitals set forth above (including, without limitation, the defined terms set forth therein) are hereby incorporated by reference into this Agreement and made a part hereof as if set forth in their entirety in this Section 1.2(b).

## 2. PURCHASE AND SALE OF ASSETS; CLOSING

2.1 Acquired Assets. On and subject to the terms and conditions of this Agreement, Buyer agrees to purchase from Sellers, and Sellers agree to sell, transfer, convey and deliver to Buyer, all of the Acquired Assets at the Closing for the consideration specified in Section 2.3 and also in consideration of the covenants of Buyer set forth herein. Sellers shall specifically retain, and the Acquired Assets shall not include, any of the Excluded Assets.

2.2 Assumption of Liabilities; Excluded Liabilities. On and subject to the terms and conditions of this Agreement, Buyer agrees to assume and become responsible for all of the Assumed Liabilities at the Closing. Notwithstanding anything in this Agreement or any of the Exhibits or Schedules attached hereto to the contrary, Buyer will not assume or have any responsibility for or with respect to, or purchase the Acquired Assets subject to, any Liabilities of any nature whatsoever (collectively, the "Excluded Liabilities") which are not expressly included within the definition of "Assumed Liabilities."

2.3 Purchase Price Amount; Estimated Purchase Price.

(a) Subject to adjustment as provided in Section 2.5 and the other provisions of this Section 2.3, the purchase price for the Acquired Assets shall be an amount equal to (i) Fifteen Million Dollars ($15,000,000) (the "Base Amount") PLUS (ii) the Closing Date Net Working Capital (if positive) MINUS (iii) the Closing Date Net Working Capital (if negative) (the amount calculated pursuant to the foregoing being referred to herein as the "Purchase Price").

(b) The parties hereto recognize and acknowledge that they will be unable to calculate the Closing Date Net Working Capital until after the Closing in accordance with the provisions of Section 2.4. Accordingly, the parties hereto have agreed to calculate the Purchase Price on the Closing Date based upon an estimate of the Closing Date Net Working Capital (the "Estimated Closing Date Net Working Capital"). The parties hereto shall mutually agree upon the Estimated Closing Date Net Working Capital within fifteen (15) days prior to the Closing Date based upon and determined by reference to the financial statements of the Sellers as of the date on which the Estimated Closing Date Net Working Capital is determined, and such other information which Buyer may require in connection therewith. The parties hereto shall set forth their agreement with respect to the Estimated Closing Date Net Working Capital in a written instrument signed by them and which shall be attached to and become a part of this Agreement.

(c) At the Closing and for purposes thereof, the Purchase Price shall be estimated in an amount equal to (i) the Base Amount PLUS (ii) the Estimated Closing Date Net Working Capital (if positive) MINUS (iii) the Estimated Closing Date Net Working Capital (if negative) (the amount calculated pursuant to the foregoing being referred to herein as the "Estimated Purchase

Price").

(d) The Estimated Purchase Price shall be payable as follows:

(i) an amount equal to the Estimated Purchase Price LESS the Escrow Deposit (the "Closing Cash Payment") shall be paid by the Buyer to the Sellers at the Closing by means of wire transfer of immediately available funds to an account or accounts designated by the Sellers, in writing, at least three (3) business days prior to the Closing Date.

(ii) the sum of One Million Dollars ($1,000,000) (the "Escrow Deposit") shall be paid by the Buyer to the Escrow Holder at the Closing by means of wire transfer of immediately available funds to an account designed by the Escrow Agent, in writing, at least three (3) business days prior to the Closing Date, to be held in escrow by the Escrow Holder pursuant to the Escrow Agreement for (A) the payment of any sums due to the Buyer under Sections 2.4(c)(ii) and 2.5 hereof, and (B) the payment and satisfaction of indemnity claims of the Buyer hereunder after the Closing, all in accordance with and subject to the provisions of the Escrow Agreement.

2.4 Final Closing Date Balance Sheet; Calculation of Closing Date Net Working Capital.

(a) As soon as practicable, but in no event later than sixty (60) days after the Closing Date, Buyer will prepare and deliver to Sellers a statement of Acquired Assets and Assumed Liabilities as of the Closing Date setting forth Buyer's calculation of the Closing Date Net Working Capital by reference thereto (such statement of Acquired Assets and Assumed Liabilities, including Buyer's calculation of Closing Date Net Working Capital, being referred to as the "Final Closing Date Statement"). The Final Closing Date Statement shall be prepared in a manner consistent with the preparation of the Financial Statement (provided that the Financial Statements have been prepared in accordance with GAAP consistently applied).

(b) Upon the completion of the Final Closing Date Statement, a copy thereof shall be delivered to Sellers. Sellers shall have the right, for a period of fifteen (15) days following their receipt thereof, to review the Final Closing Date Statement to determine whether the Final Closing Date Statement was prepared in accordance with the provisions hereof. If, following such review, Sellers determine that the Final Closing Date Statement was not prepared in accordance with the provisions hereof and that Buyer's calculation of Closing Date Net Working Capital is in error as a result thereof, Sellers shall so notify Buyer. For a period of fifteen (15) days following the receipt of such notice, Buyer and Sellers shall attempt to resolve any such dispute with respect to the Final Closing Date Statement. If, at the expiration of such fifteen (15) day period, Buyer and Sellers are not able to resolve such dispute, within the three (3) day period immediately following the expiration of such fifteen (15) day period, the Buyer and Sellers shall promptly submit to the Pittsburgh, Pennsylvania office of any "big five" firm of independent, certified public accountants recommended by the Pennsylvania Institute of Certified Public Accountants (provided that such accountants do not then serve as accountants to Buyer or Seller), which firm shall resolve all matters in dispute with respect to the Final Closing Date Balance Sheet within the fifteen (15) day period immediately following such submission and whose determination shall be final, binding and

conclusive upon Buyer and Sellers. The fees of any such independent, certified public accounting firm shall be borne equally by Buyer and Sellers.

(c) At a supplemental closing to be held within the later of ninety (90) days after the Closing Date or ten (10) days after the final determination of the Final Closing Date Statement and calculation of the Closing Date Net Working Capital pursuant to Section 2.4(b) (the "Supplemental Closing"), payment shall be made from Buyer to Sellers or Sellers to Buyer, as appropriate, to take into account any difference between the Estimated Purchase Price (based upon the Estimated Closing Date Net Working Capital) and the Purchase Price (based upon the actual Closing Date Net Working Capital). Such difference, if any, will be paid as follows:

(i) If the Purchase Price EXCEEDS the Estimated Purchase Price, at the Supplemental Closing, Sellers will be entitled to receive from Buyer an amount equal to such excess, which shall be paid by Buyer by means of wire transfer of immediately available funds to an account or accounts designated by Seller in writing.

(ii) If the Estimated Purchase Price EXCEEDS the Purchase Price, Buyer will be entitled to receive from the Escrow Holder funds from the Escrow Deposit in an amount equal to such excess, which amount shall be paid by Escrow Holder pursuant to the terms of the Escrow Agreement at the Supplemental Closing by means of wire transfer of immediately available funds to an account or accounts designated by Buyer in writing. If the amount by which the Estimated Purchase Price EXCEEDS the Purchase Price is greater than the Escrow Deposit, Sellers will pay to Buyer an amount equal to such excess which shall be paid by Sellers at the Supplemental Closing by means of wire transfer of immediately available funds to an account or accounts designated by Buyer in writing.

2.5 Purchase Price Adjustment for Uncollected Receivables. Notwithstanding anything contained herein to the contrary, to the extent that all or any portion of the accounts receivable of Sellers included in the Acquired Assets (net of any reserve therefor reflected in the Final Closing Date Balance Sheet), including both billed and unbilled accounts receivable, are not collected in full and in cash by the Buyer in the ordinary course of its business and using the Buyer's customary collection practices (without resort to legal proceedings), within one hundred eighty (180) days after the Closing Date (collectively, the "Uncollected Receivables") there shall be a dollar-for-dollar reduction in the Purchase Price in an amount equal to the aggregate amount of the Uncollected Receivables. Any adjustment to the Purchase Price pursuant to this Section 2.5 shall be paid in the manner provided by Section 2.4(c)(ii). Following the satisfaction by the Sellers of all of their obligations under this Section 2.5, the Buyer shall, if requested by the Sellers, assign and transfer (without recourse, representation, or warranty) to Sellers all of Buyer's right, title, and interest in, to, and under the Uncollected Receivables, pursuant to a written instrument of assignment reasonably satisfactory to Buyer and Sellers; PROVIDED, HOWEVER, Sellers shall not disrupt the Clinical Business conducted by Buyer in connection with any effort by Sellers to collect the Uncollected Receivables following such assignment and transfer thereof. The parties further agree that if the Buyer collects in cash an aggregate amount in respect of billed and unbilled accounts receivable of the Sellers included in the Acquired Assets (net of any reserve therefor reflected in the Final Closing Date Balance Sheet) which is in excess of such billed and unbilled accounts receivable reflected in the Final Closing Date

Balance Sheet (net of the aforesaid reserve) as of the date which is one hundred eighty (180) days after the Closing Date, the Purchase Price shall be increased, dollar-for-dollar, by an amount equal to such excess (such Purchase Price increase to be paid in the manner provided by the provisions of Section 2.4(c)(i)).

2.6 Closing Deliveries. At the Closing:

(a) Sellers will deliver, or cause to be delivered, to Buyer:

(i) a non-competition agreement(s) in the form of EXHIBIT F executed by each Seller, DataTRAK and Dr. Jeffrey A. Green (the "Non-Competition Agreement");

(ii) The agreements in the form of EXHIBITS G1 and G2 executed by Collaborative and DataTRAK, respectively (the "Seller Agreements");

(iii) any other Related Agreements to which any Seller is a party;

(iv) a bill of sale and such assignments and other instruments of sale, transfer, conveyance and assignment (including certificates of title and an assignment to Buyer of all of Seller's rights in, to and under the Lease) regarding the Acquired Assets as Buyer and its counsel may request;

(v) a certificate executed by Sellers to the effect that each of Sellers' representations and warranties in this Agreement and in each Related Agreement to which Sellers (or any of them) are parties was accurate in all respects as of the date of this Agreement and is accurate in all respects as of the Closing Date as if made on the Closing Date, which certificate shall be in the form of EXHIBIT H hereto;

(vi) estoppel certificates from the landlord under each Lease, in form and substance satisfactory to Buyer;

(vii) for each Leased Property subject to Encumbrance against any of the Landlord's interest therein, satisfactory evidence that the Lease pertaining thereto is subject to a non-disturbance and attornment agreement in favor of the applicable Seller thereunder (and any assignee of such Seller), which non-disturbance and attornment agreement shall be satisfactory, in form and substance, to Buyer;

(viii) the Assignment and Assumption executed by Sellers;

(ix) a sublease agreement (the "Sublease Agreement") executed by Collaborative, pursuant to which Collaborative shall sublease that portion of the Collaborative Premises which Collaborative and the Buyer deem reasonably necessary in order for the Buyer to conduct

the Clinical Business thereat, which Sublease Agreement shall be satisfactory, in form and substance, to Collaborative and the Buyer and shall incorporate those terms set forth on SCHEDULE 2.6(a)(ix); and

(x) all other certificates, instruments and documents to be delivered by Sellers (or any of them) pursuant to this Agreement or any of the Related Agreements.

(b) Buyer will deliver, or cause to be delivered, to Sellers:

(i) the Closing Cash Payment;

(ii) an assignment, delegation and assumption agreement (the "Assumption Agreement") in the form of EXHIBIT I hereto;

(iii) the Non-Competition Agreement executed on behalf of Buyer;

(iv) the Services Agreement executed on behalf of Buyer;

(v) the Sublease Agreement; and

(vi) a certificate executed by Buyer to the effect that each of Buyer's representations and warranties in this Agreement and in each Related Agreement to which Buyer is a party was accurate in all respects as of the date of this Agreement and is accurate in all respects as of the Closing Date as if made on the Closing Date, which certificate shall be in the form of EXHIBIT J hereto.

2.7 Closing. The purchase and sale (the "Closing") provided for in this Agreement will take place at the offices of Stevens & Lee, One Glenhardie Corporate Center, 1275 Drummers Lane, Wayne, Pennsylvania 19087, at 10:00 A.M., within five (5) business days after the conditions set forth in Sections 7.7 and 8.5 have been satisfied, on or at such other earlier time and place as the parties may mutually agree upon in writing.

2.8 Allocation of the Purchase Price. The Purchase Price shall be allocated among the Acquired Assets and the Assumed Liabilities in accordance with EXHIBIT K attached hereto.

As soon as practicable after the Supplemental Closing, but in any event not later than thirty (30) days after the Supplemental Closing, the Sellers and Buyer shall make any and all appropriate adjustments to the Tax Allocation by reason of any adjustment to the Purchase Price under Section 2.4(c). It is understood and agreed that the Tax Allocation shall be prepared pursuant to and an in accordance with the provisions of Section 1060 of the Code and Buyer shall prepare Form 8594 under Section 1060 of the Code relating to the Contemplated Transactions based upon the final Tax Allocation prepared pursuant hereto. The Tax Allocation shall, for tax purposes, be binding on Sellers and Buyer, and Sellers and Buyer shall file their respective Tax Returns in accordance with such Tax Allocation and shall not take any position inconsistent with the Tax Allocation.

3. REPRESENTATIONS AND WARRANTIES OF SELLERS

Sellers hereby jointly and severally represent and warrant to Buyer as follows:

3.1 Organization and Good Standing. Each Seller is a corporation duly organized, validly existing, and in good standing under the laws of its jurisdiction of incorporation (as set forth on SCHEDULE 3.1), with full corporate power and authority to conduct the Clinical Business as it is now being conducted, to own or use the properties and assets that it purports to own or use, and to perform all its obligations under all Assigned Contracts. Each Seller is duly qualified to do business as a foreign corporation and is in good standing under the laws of each state or other jurisdiction in which the failure to be so qualified and in good standing could reasonably be expected to have a Material Adverse Effect.

3.2 Authority; No Conflict.

(a) Subject to approval by the shareholders of Collaborative contemplated by Section 8.5, this Agreement constitutes the legal, valid, and binding obligation of Sellers, enforceable against Sellers in accordance with its terms. Subject to approval by the shareholders of Collaborative contemplated by Section 8.5, upon the execution and delivery by Sellers of the Related Agreements to which Sellers (or any of them) are parties, the Related Agreements will constitute the legal, valid, and binding obligations of Sellers, enforceable against Sellers in accordance with their respective terms. Sellers have the requisite right, power, authority, and capacity to execute and deliver this Agreement and such Related Agreements and to perform their obligations under this Agreement and such Related Agreements.

(b) Except for those Consents set forth in

SCHEDULE 3.2(b), neither the execution and delivery of this Agreement or the Related Agreements to which Sellers (or any of them) are parties nor the consummation or performance of any of the Contemplated Transactions will, directly or indirectly (with or without notice or lapse of time):

(i) contravene, conflict with, or result in a violation of any provision of the articles of incorporation, code of regulations, or other organizational documents of Sellers;

(ii) contravene, conflict with, or result in a violation of, or give any Governmental Body or other Person the right to challenge any of the Contemplated Transactions or to exercise any remedy or obtain any relief under, any Legal Requirement or any Order to which Sellers or any of the Acquired Assets may be subject;

(iii) contravene, conflict with, or result in a violation of any of the terms or requirements of, or give any Governmental Body the right to revoke, withdraw, suspend, cancel, terminate, or modify, any Governmental Authorization that is held by any Seller or that otherwise relates to the Clinical Business or any of the Acquired Assets or the Leased Property;

(iv) cause any of the Acquired Assets to be reassessed or revalued by any taxing authority or other Governmental Body;

(v) contravene, conflict with, or result in a violation or breach of any provision of, or give any Person the right to declare a default or exercise any remedy under, or to accelerate the maturity or performance of, or

to cancel, terminate, or modify, any Assigned Contract; or

(vi) except pursuant to any Contract to which the Buyer is a party, result in the imposition or creation of any Encumbrance upon or with respect to any of the Acquired Assets.

Except for those Consents set forth in SCHEDULE 3.2(b), Seller is not, and will not be, required to give any notice to or obtain any Consent from any Person (including parties to the Assigned Contracts) in connection with the execution and delivery of this Agreement or any of the Related Agreements or the consummation or performance of any of the Contemplated Transactions.

3.3 Financial Statements; Accounts Receivable.

(a) SCHEDULE 3.3 includes the following:

(i) Audited consolidated and consolidating balance sheets of Collaborative and its subsidiaries (including the Selling Subsidiaries) as at the close of each of the years December 31, 1995, December 31, 1996, and December 31, 1997, inclusive, and the related consolidated and consolidating statements of income, changes in stockholders' equity, and cash flow of collaborative and its subsidiaries (including the Selling Subsidiaries) for each of the fiscal years then ended, all on a comparative basis, together with the notes thereto and the report thereon of Seller's Accountant (the "Prior Financial Statements"); and

(ii) a consolidated and consolidating balance sheet of Collaborative and its subsidiaries as at September 30, 1998, and the related internally prepared consolidated and consolidating statements of income, changes in stockholders' equity and cash flow for the nine (9) month period then ended (which, together with any financial statements delivered pursuant to Section 5.11, shall be collectively referred to as the "Interim Financial Statements").

(b) The Financial Statements fairly present, in all material respects, the financial condition and the results of operations, changes in stockholders' equity, and cash flow of Collaborative and its subsidiaries as at the respective dates of and for the periods referred to in such Financial Statements, all in accordance with GAAP, subject, in the case of interim financial statements, to normal year-end adjustments (the effect of which will not, individually or in the aggregate, be materially adverse), and the Financial Statements reflect the consistent application of such accounting principles throughout the periods involved. Except to the extent provided otherwise in such Financial Statements, (i) adequate provision was made in the Financial Statements for doubtful accounts or other receivables; (ii) sales were stated in the Financial Statements net of discounts, returns and allowances; and (iii) all Taxes due or paid were timely reflected in the Financial Statements and all Taxes not yet due and payable were accrued or otherwise provided for therein. At the respective dates of each of the Financial Statements, Sellers had no Liability required to be reflected or disclosed in the Financial Statements under GAAP which was not so reflected or disclosed. No provision in the Financial Statements as of and for the periods covered by such Financial Statements was necessary, under GAAP, for Liability on account of warranties or with respect to the Clinical Business. Any significant items of income or expense which were unusual or of a nonrecurring nature were separately disclosed in the Financial Statements.

(c) All of the Accounts Receivable of Sellers

included in the Acquired Assets represent amounts receivable for services actually provided, have arisen from bona-fide

transactions in the Ordinary Course of Business, are not subject to any counterclaims or offsets, and have been billed or are billable, as appropriate, in accordance with the terms of the Assigned Contract applicable thereto.

3.4 Books and Records. The books of account, minute books, stock record books, and other records of each Seller, all of which have been made available to Buyer, are complete and correct in all material respects.

3.5 Title To Assets; Encumbrances.

(a) Sellers have or will have and convey to Buyer at the Closing, good and merchantable title to, or a valid leasehold interest in, all of the properties and assets (other than the Excluded Assets) used or usable by Sellers in the Clinical Business or shown on the balance sheet of Sellers dated as of September 30, 1998, which comprises a portion of the Interim Financial Statements (the "INTERIM BALANCE SHEET"), or acquired after the date thereof, free and clear of all Encumbrances, except for (i) the Assumed Liabilities, and (ii) properties and assets disposed of in the Ordinary Course of Clinical Business since the date of the Interim Balance Sheet. Without limiting the generality of the foregoing, Sellers have, and will convey to Buyer at the Closing, good and merchantable title to all of the Acquired Assets, free and clear of any Encumbrance or restriction on transfer of any nature, other than the Assumed Liabilities.

(b) SCHEDULE 3.5(b) contains a complete and accurate list of all Facilities at which any Seller currently conducts the Clinical Business. To the best of the Sellers' Knowledge, all Facilities currently used by Sellers lie wholly within the boundaries of the real property owned or leased by Seller and do not encroach upon the property of, or otherwise conflict with the property rights of, any other Person. The use and operation of such Facilities are in compliance with all applicable Legal Requirements, Orders, Consents and Governmental Authorizations. To the best of the Sellers' Knowledge, there are no existing, pending, or Threatened (i) requests, applications or proceedings to alter or restrict the zoning or other use restrictions applicable to any such Facilities, (ii) condemnation proceedings that would affect any of such Facilities in any way, or (iii) public improvements that would result in any charge or Taxes being levied or assessed against, or would result in the creation of any Encumbrance upon, any of such Facilities.

(c) DataTRAK has no right, title or interest in any of the Acquired Assets.

3.6 Condition and Sufficiency of Assets.

(a) Except as set forth in SCHEDULE 3.6, (i) the machinery, equipment, tools, supplies and other tangible personal property included in the Acquired Assets are in good operating condition and repair, ordinary wear and tear excepted and (ii) none of such machinery, equipment, tools, supplies and other tangible personal property included in the Acquired Assets is in need of maintenance or repairs except for ordinary, routine maintenance and repairs that are not material in nature or cost.

(b) To the best of the Sellers' Knowledge, all buildings, structures and other improvements and fixtures which comprise the Facilities (i) are free of any structural or engineering defects, (ii) are in good repair and condition, ordinary wear and tear excepted, and (iii) are free from any latent defects and (iv) suitable for their intended use.

3.7 No Undisclosed Liabilities. Except as set forth in SCHEDULE 3.7 or any other SCHEDULE hereto, Sellers have no Liabilities of any nature with respect to the Clinical Business except for Liabilities reflected or reserved against in the Interim Balance Sheet and current Liabilities incurred in the Ordinary Course of Business since the date thereof; provided, however, notwithstanding the foregoing or the meaning ascribed to the term Liability herein, Liabilities of the Sellers which are expressly described in or expressly covered by the provisions of any other representation and warranty contained in this Section 3 or as otherwise disclosed in the applicable Schedule thereto, or which are not required to be disclosed in such other representation or warranty (or the applicable Schedule thereto) by reason of materiality qualifiers therein, need not be disclosed in SCHEDULE 3.7 solely by reason of the representation and warranty in this Section 3.7.

3.8 Taxes.

(a) Sellers have filed or caused to be filed on a timely basis all Tax Returns that are or were required to be filed by or with respect to Sellers, either separately or as a member of a group of corporations, pursuant to applicable Legal Requirements for all periods prior to the Closing Date. Sellers have paid, or made provision for the payment of, all Taxes that have or may have become due pursuant to those Tax Returns or otherwise, or pursuant to any assessment received by Sellers, except such Taxes, if any, as are listed in SCHEDULE 3.8 and are being contested in good faith and as to which adequate reserves (determined in accordance with GAAP) have been provided in the Interim Balance Sheet.

(b) The charges, accruals, and reserves with respect to Taxes on the books of Sellers are adequate (determined in accordance with GAAP) and are at least equal to Sellers

liability for Taxes. There exists no proposed tax assessment against Seller to Seller Knowledge except as disclosed in SCHEDULE 3.8. All Taxes that Seller is or was required by Legal Requirements to withhold or collect have been duly withheld or collected and, to the extent required, have been paid to the proper Governmental Body or other Person.

(c) All Tax Returns filed by Sellers (or that include Sellers on a consolidated basis) are true, correct, and complete in all material respects.

(d) No audit or examination by any Tax authority is pending with respect to or relating to any Taxes and no Seller has received any notice from any Tax authority of (i) any pending or Threatened claim for any Tax deficiency, (ii) intention to examine or audit any Tax Return for any period, or (iii) intention to reassess any of the Acquired Assets for Tax purposes.

3.9 No Material Adverse Change. Since the date of the Interim Balance Sheet, there has not been any material adverse change in the operations, properties, assets, Liabilities, or financial condition of Sellers relating to the

Clinical Business or any material adverse change in the Clinical Business taken as a whole, and no event, condition or circumstance exists that could reasonably be expected to result in such a material adverse change.

3.10 Employee Benefits.

(a) SCHEDULE 3.10 lists each Employee Benefit Plan that any Seller maintains or to which any Seller contributes with respect to any employee of the Clinical Business. All contributions (including all employer contributions and employee salary reduction contributions) which are due have been paid to each such Employee Benefit Plan and all contributions for any period ending on or before the Closing Date which are not yet due have been paid to each such Employee Benefit Plan or accrued in accordance with the past custom and practice of Seller.

(b) Sellers do not contribute to, never have contributed to, and never has been required to contribute to any Multiemployer Plan (as defined in ERISA ' 3(37)(A)) or have any Liability (including withdrawal Liability) under any Multiemployer Plan.

(c) Except as set forth on SCHEDULE 3.10, no Seller maintains or contributes to any bonus, deferred compensation, incentive, severance, termination, or other compensation plan or arrangement, for the benefit of any employee

of Seller.

3.11 Compliance With Legal Requirements; Governmental Authorizations.

(a) Except as set forth in SCHEDULE 3.11(a):

(i) Each Seller is, and at all times since December 31, 1995 has been, in full compliance with each Legal Requirement that is or was applicable to it or to the conduct or operation of its Clinical Business or the ownership or use of any of the Acquired Assets or the Facilities;

(ii) no event has occurred or circumstance exists that (with or without notice or lapse of time) (A) may constitute or result in a violation by Seller of, or a failure on the part of any Seller to comply with, any Legal Requirement, or (B) may give rise to any obligation on the part of Seller to undertake, or to bear all or any portion of the cost of, any remedial action of any nature;

(iii) Sellers have not received, at any time since December 31, 1995, any notice or other communication (whether oral or written) from any Governmental Body or any other Person regarding (A) any actual, alleged, or potential violation of, or failure to comply with, any Legal Requirement, or (B) any actual, alleged, or potential obligation on the part of Seller to undertake, or to bear all or any portion of the cost of, any remedial action of any nature; and

(iv) Sellers have timely filed any and all reports, forms, and documents required to be filed by them under and pursuant to the 34 Act.

(b) SCHEDULE 3.11(b) contains a complete and

accurate list of each Governmental Authorization that is held by any Seller or that otherwise relates to the Clinical Business, or to any of the Acquired Assets or the Facilities. Each Governmental Authorization listed or required to be listed in Schedule 3.12 is valid and in full force and effect. Except as set forth in SCHEDULE 3.11(b):

(i) each Seller is, and at all times has been, in full compliance with all of the terms and requirements of each Governmental Authorization identified or required to be identified in SCHEDULE 3.11(b); and

(ii) no event has occurred or circumstance exists that may (with or without notice or lapse of time) (A) constitute or result directly or indirectly in a violation of or a failure to comply with any term or requirement of any Governmental Authorizations listed or required to be listed in SCHEDULE 3.11(b), or (B) result directly or indirectly in the revocation, withdrawal, suspension, cancellation, or termination of, or any modification to, any Governmental Authorization listed or required to be listed in SCHEDULE 3.11(b).

The Governmental Authorizations listed in SCHEDULE 3.11(b) collectively constitute all of the Governmental Authorizations necessary to permit Sellers to lawfully conduct and operate the Clinical Business in the manner it currently conducts and operates such Clinical Business and to permit Sellers to own and use the Acquired Assets and to use the Facilities in the manner in which they currently own and use such assets.

3.12 Legal Proceedings; Orders.

(a) Except as set forth in SCHEDULE 3.12, there is no pending Proceeding:

(i) that has been commenced by or against Seller or that otherwise relates to or may affect the Clinical Business or any of the Acquired Assets or the Facilities; or

(ii) that challenges, or that may have the effect of preventing, delaying, making illegal, or otherwise interfering with, any of the Contemplated Transactions or the Related Transactions.

To the Knowledge of Sellers, (1) no such Proceeding has been Threatened, and (2) no event has occurred or circumstance exists that could reasonably be expected to give rise to or serve as a basis for the commencement of any such Proceeding. The Proceedings listed in SCHEDULE 3.12 will not have a material adverse effect on the Clinical Business of any Seller or the Acquired Assets or the Facilities.

(b) Except as set forth in SCHEDULE 3.12:

(i) there is no Order to which any of the Sellers, or any of the Acquired Assets or the Facilities is subject; and

(ii) each Seller is in full compliance with

all of the terms and requirements of each Order set forth in SCHEDULE 3.12.

(c) SCHEDULE 3.12 sets forth a complete and accurate summary and current status of all pending and Threatened workers' compensation claims by any current or former employees of Seller.

3.13 Absence of Certain Changes and Events. Since the date of the Interim Balance Sheet, each Seller has conducted the Clinical Business only in the Ordinary Course of Business. Without limiting the generality of the foregoing sentence, since the date of the Interim Balance Sheet, there has not been, with respect to the Clinical Business, any of the following except as set forth on Schedule 3.13 (or any supplement thereto delivered pursuant to Section 7.10):

(i) amendment to the certificate of incorporation, bylaws or other organizational documents of Seller;

(ii) payment or increase by any Seller of any bonuses, salaries, or other compensation to any director, officer, or (except in the Ordinary Course of Clinical Business) employee or entry into any employment, severance, or similar Contract with any director, officer, or employee;

(iii) payment by Seller of the personal expenses of any shareholder, director, officer or employee;

(iv) adoption of, or increase in the payments to or benefits under, any Employee Benefit Plan for or with any employees of any Seller;

(v) damage to or destruction or loss of any asset or property of any Seller, whether or not covered by insurance, materially and adversely affecting the properties, assets, Clinical Business or financial condition of Seller, taken as a whole;

(vi) ^ termination of, or receipt of notice of termination of (i) any license, distributorship, sales representative, joint venture, credit, or similar agreement, or (ii) any Contract or transaction which are individually or in the aggregate material to the Clinical Business;

(vii) sale, lease, or other disposition of any asset or property of Seller or mortgage, pledge, or

imposition of any Encumbrance on any of the Acquired Assets, including the sale, lease, or other disposition of any of the Intellectual Property Assets;

(viii) cancellation or waiver of any claims or rights material to the conduct of the Clinical Business or any cancellation or waiver of any debts or claims affecting the Clinical Business;

(ix) material change in the accounting methods used by any Seller; or

(x) agreement, whether oral or written, by Seller to do any of the foregoing.

3.14 Contracts; No Defaults.

(a) SCHEDULE 3.14 contains (except as provided in clause (iii) below) a complete and accurate list, and Sellers have made available to Buyer true and complete copies, of all Contracts in effect as of the date hereof with respect to the Clinical Business or the Acquired Assets including the following:

(i) each Lab Service Contract;

(ii) each Sponsor Contract;

(iii) a list of all Site Contracts (to be delivered no later than five (5) business days before Closing);

(iv) to the extent not included under clauses (i) through (iii) above, each Contract that involves performance of services or delivery of goods or materials by Seller relating to the Clinical Business;

(v) to the extent not included under clauses (i) through (iii) above, each Contract that involves performance of services or delivery of goods or materials to Seller relating to the Clinical Business;

(vi) each Contract relating to the Clinical Business that was not entered into in the Ordinary Course of Business and that involves expenditures or receipts of Seller;

(vii) each lease, rental or occupancy agreement, license, installment and conditional sale agreement, and other Contract affecting the ownership of, leasing of, title to, use of, or any leasehold or other interest in, any real or personal property (including the Leases);

(viii) each joint venture, partnership, and other Contract (however named) involving a sharing of profits, losses, costs, or liabilities by Seller with any other Person;

(ix) each Contract containing covenants that in any way purport to restrict Seller's business activity or limit the freedom of Seller to engage in any line of business or to compete with any Person;

(x) each Contract entered into other than in the Ordinary Course of Business that contains or provides for an express undertaking by Seller to be responsible for consequential damages;

(xi) each Contract for capital expenditures in excess of Five Thousand Dollars ($5,000);

(xii) each written warranty, guaranty, and or other similar undertaking extended by Seller other than in the Ordinary Course of Business; and

(xiii) each amendment, supplement, and modification (whether oral or written) in respect of any of

the foregoing.

SCHEDULE 3.14 also sets forth the details concerning such Contracts which are specified in such SCHEDULE 3.14, including the parties to the Contracts and the amount of the remaining commitment of Seller under the Contracts.

(b) Except as set forth in SCHEDULE 3.14:

(i) Sellers do not have and cannot acquire any rights under, and Sellers do not have and cannot become subject to any Liability under, any Contract that relates to the Clinical Business or any of the Acquired Assets;

(ii) each Contract identified or required to be identified in SCHEDULE 3.14 is in full force and effect and is valid and enforceable against such Seller in accordance with its terms;

(iii) to the best of the Sellers' Knowledge, each Contract identified or required to be identified in SCHEDULE 3.14 is enforceable against the other party thereto in accordance with its terms;

(iv) each Seller is and at all times has been in full compliance with all applicable terms and requirements of each Contract under which Seller has or had any Liability or by which Seller or any of the Acquired Assets is or was bound;

(v) each other Person that has or had any Liability under any Contract under which any Seller has or had any rights is, and at all times has been, in full compliance with all applicable terms and requirements of such Contract; and

(vi) no event has occurred or circumstance exists that (with or without notice or lapse of time) may contravene, conflict with, or result in a violation or breach of, or give any Seller or other Person the right to declare a default or exercise any remedy under, or to accelerate the maturity or performance of, or to cancel, terminate, or modify, any Contract involving any Seller or the Clinical Business or any of the Acquired Assets.

3.15 Insurance.

(a) Sellers have made available to Buyer:

(i) true and complete copies of all current policies of insurance to which Seller is a party or under which any Seller is or has been covered at any time within the three (3) years preceding the date of this Agreement relating to the Clinical Business or the Acquired Assets; and

(ii) true and complete copies of all pending applications for policies of insurance relating to the Clinical Business or the Acquired Assets.

(b) SCHEDULE 3.15 describes:

(i) any self-insurance arrangement by or affecting any Seller, including any reserves established thereunder;

(ii) any Contract or arrangement, other than a policy of insurance, for the transfer or sharing of any risk by any Seller; and

(iii) all obligations of any Seller to provide coverage to third parties (for example, under leases or service agreements).

(c) Except as set forth in SCHEDULE 3.15:

(i) All policies to which any Seller is a party or that provide coverage to any Seller:

(A) are valid, outstanding, enforceable, and are in full force and effort;

(B) taken together, to the best of the Sellers' Knowledge, provide adequate insurance coverage for the assets and the operations of any Seller for all risks normally insured against by a Person carrying on the same business or businesses as the Sellers; and

(C) are sufficient for compliance with all Legal Requirements and Contracts to which any Sellers are a party or by which any Seller is bound.

3.16 Environmental Matters. Except as set forth in SCHEDULE 3.16:

(a) Each Seller is, and at all times prior to the date hereof has been, in compliance in all material aspects with, and has not been and is not in violation of or liable under, any applicable Environmental Law. No Seller has any reasonable basis to expect, nor has any Seller received, any actual or Threatened order, notice, or other communication from (i) any Governmental Body or other Person, or (ii) the current or prior owner or operator of any Facilities, of any actual or potential violation or failure to comply with in any material respect any Environmental Law, or of any actual or Threatened obligation to undertake or bear the cost of any Environmental, Health, and Safety Liabilities with respect to any of the Facilities or any Acquired Assets, or with respect to any property or Facility at or to which Hazardous Materials were generated, manufactured, refined, transferred, imported, used, or processed by any Seller, or any other Person for whose conduct any Seller is or may be held responsible, or from which Hazardous Materials have been transported, treated, stored, handled, transferred, disposed, recycled, or received.

(b) There are no pending or, to the Knowledge of Sellers, Threatened claims or Encumbrances resulting from any Environmental, Health, and Safety Liabilities or arising under or pursuant to any Environmental Law, with respect to or affecting any of the Facilities or any Acquired Asset.

(c) No Seller has Knowledge of any basis to expect, nor has any of them received, any Order, notice, communication, inquiry, warning, citation, summons, directive, or

any other indication that relates to any alleged, actual, or potential violation or failure by any Seller to comply in any material respect with any Environmental Law, or of any alleged, actual, or potential obligation of any Seller to undertake or bear the cost of any Environmental, Health, and Safety Liabilities with respect to any of the Facilities or any of the Acquired Assets, or with respect to any property or facility to which Hazardous Materials generated, manufactured, refined, transferred, imported, used, or processed by any Seller, or any other Person for whose conduct any Seller is or may be held responsible, have been transported, treated, stored, handled, transferred, disposed, recycled, or received.

(d) To the best of the Sellers' Knowledge, no Seller nor any other Person for whose conduct any Seller is or may be held responsible, has any Environmental, Health, and Safety Liabilities with respect to the Facilities or any of the Acquired Assets, at any property geologically or hydrologically adjoining the Facilities.

(e) There are no Hazardous Materials present on or in the Facilities in violation of any applicable Environmental Law, including any Hazardous Materials contained in barrels, above or underground storage tanks, landfills, land deposits, dumps, equipment (whether moveable or fixed) or other containers, either temporary or permanent, and deposited or located in land, water, swamps, or any other part of the Facilities or such adjoining property, or incorporated into any structure therein or thereon. No Seller, nor any other Person for whose conduct any Seller is or may be held responsible, or to the Knowledge of any Seller, any other Person, has permitted or conducted, or is aware of, any hazardous activity conducted with respect to Hazardous Materials at the Facilities or any of the Acquired Assets, except in full compliance with all applicable Environmental Laws.

(f) There has been no Release or, to the Knowledge of any Seller, threat of Release, of any Hazardous Materials at or from the Facilities or, to the best of Sellers' Knowledge at any other locations where any Hazardous Materials were generated, manufactured, refined, transferred, produced, imported, used, or processed from or by the Facilities, or from or by any of the Acquired Assets, or to the Knowledge of Sellers any geologically or hydrologically adjoining property, whether by any Seller or any other Person.

(g) Each Seller has made available to Buyer true and complete copies and results of any reports, studies, analyses, tests, or monitoring possessed or initiated by such Seller pertaining to Hazardous Materials or hazardous activities

in, on, or under the Facilities, or concerning compliance by such Seller or any other Person for whose conduct such Seller is or may be held responsible with Environmental Laws.

3.17 Employees.

(a) SCHEDULE 3.17 contains a complete and accurate list of the following information for each employee of Sellers engaged in the Clinical Business, including each employee on leave of absence or layoff status: employer; name; job title; current compensation paid or payable and any change in compensation since the date of the Interim Balance Sheet; vacation accrued; and service credited for purposes of vesting and eligibility to participate under any Employee Benefit Plan.

(b) To the best of the Sellers' Knowledge, no Seller has received any verbal or written indication that any director, officer, or other employee of any Seller engaged in the

Clinical Business will terminate his or her employment with such Seller prior to the Closing (whether as a result of the Contemplated Transactions or otherwise).

3.18 Labor Disputes; Compliance. Except as disclosed in SCHEDULE 3.18, none of the Sellers is a party to any collective bargaining or other labor Contract, and there has not been, there is not presently pending or existing, and to Sellers' Knowledge there is not Threatened any strike, slowdown, picketing, work stoppage, labor arbitration or proceeding in respect of the grievance of any employee, application or complaint filed by an employee or union with the National Labor Relations Board or any comparable Governmental Body, organizational activity, or other labor dispute against or affecting any Seller with respect to the Clinical Business, and no application for certification of a collective bargaining agent is pending or to any Sellers' Knowledge is Threatened; to any Sellers' Knowledge, no event has occurred or circumstance exist that could provide the basis for any work stoppage or other labor dispute. Except as disclosed in SCHEDULE 3.18, each Seller has complied in all respects with all Legal Requirements relating to employment, equal employment opportunity, nondiscrimination, immigration, wages, hours, benefits, collective bargaining, the payment of social security and similar taxes, occupational safety and health, and plant closing (including WARN). No Seller is liable for the payment of any Taxes, fines, penalties, or other amounts, however designated, for failure to comply with any of the foregoing Legal Requirements.

3.19 Intellectual Property.

(a) Intellectual Property Assets - The term "Intellectual Property Assets" includes:

(i) corporate names (and any derivation thereof), fictitious business names, trade names, registered and unregistered trademarks, service marks, and applications (collectively, "Marks");

(ii) all patents and patent applications (collectively, "Patents"); and

(iii) all know-how, trade secrets, confidential information, software, technical information, processes, technology, plans, drawings, and blue prints (collectively, "Trade Secrets");

owned or used by any Seller, or licensed by any Seller as licensee or licensor, and, in any case, used in the Clinical Business.

(b) AGREEMENTS - SCHEDULE 3.19 contains a complete and accurate list and summary description of all Intellectual Property Assets pertaining to the Clinical Business and any Contracts relating to such Intellectual Property Assets to which any Seller is a party or by which any Seller is bound. There are no outstanding and, to Sellers' Knowledge, no Threatened disputes or disagreements with respect to any such Contract.

(c) Know-How Necessary for the Clinical Business - The Intellectual Property Assets described in SCHEDULE 3.19 are all Intellectual Property Assets necessary for the operation of the Clinical Business as currently conducted. Sellers are the owner of all right, title, and interest in and to each of the Intellectual Property Assets, free and clear of all Encumbrances, and has the right to use without payment to a third party all of

the Intellectual Property Assets.

3.20 Relationships With Related Persons. No Related Person of Seller has any interest in the Clinical Business or any of the Assigned Contracts or any of the other Acquired Assets. Except as described in SCHEDULE 3.20, to the best of the Sellers' Knowledge, no Related Person of Seller owns of record or as a beneficial owner, an equity interest or any other financial or profit interest in any Person that has (a) business dealings or a material financial interest in any transaction with any Seller, or (b) engages in competition with Sellers with respect to the Clinical Business in any market presently served by Seller. Except as set forth in SCHEDULE 3.20, no Related Person of any Seller is a party to any Contract with, or has any claim or right against, Seller.

3.21 Brokers or Finders. Sellers and their agents have incurred no obligation or Liability, contingent or otherwise, for brokerage or finders' fees or agents' commissions or other similar payment in connection with this Agreement or the Contemplated Transactions for which Buyer will have any Liability.

3.22 Disclosure.

(a) No representation or warranty of Sellers in this Agreement or any Related Agreement and no statement in any of the Schedules omits to state a material fact necessary to make the statements herein or therein, in light of the circumstances in which they were made, not misleading.

(b) Except as described on SCHEDULE 3.22, there is no fact known to Sellers that has specific application to Sellers (other than general economic or industry conditions) and that materially adversely affects or, as far as Sellers can reasonably foresee, materially threatens, the Clinical Business or the Acquired Assets, or the financial condition, or results of operations or prospects relating to the Clinical Business or the Acquired Assets that has not been set forth in this Agreement or the Schedules to this Agreement.

## 4. REPRESENTATIONS AND WARRANTIES OF BUYER

Buyer represents and warrants to Sellers as follows:

4.1 Organization and Good Standing. Buyer is a corporation duly organized, validly existing, and in good standing under the laws of the Commonwealth of Pennsylvania.

4.2 Authority; No Conflict.

(a) This Agreement constitutes the legal, valid, and binding obligation of Buyer, enforceable against Buyer in accordance with its terms. Upon the execution and delivery by Buyer of the Related Agreements to which Buyer is a party, the Related Agreements to which Buyer is a party will constitute the legal, valid, and binding obligations of Buyer, enforceable against Buyer in accordance with their respective terms. Buyer has the absolute and unrestricted right, power, and authority to execute and deliver this Agreement and the Related Agreements to which Buyer is a party and to perform its obligations under this Agreement and the Related Agreements to which Buyer is a party.

(b) Neither the execution and delivery by Buyer

of this Agreement or the Related Agreements to which Buyer is a party nor the consummation or performance of any of the

Contemplated Transactions by Buyer will give any Person the right to prevent, delay, or otherwise interfere with any of the Contemplated Transactions pursuant to:

(i) any provision of Buyer's certificate of incorporation, bylaws or other organizational documents;

(ii) any Legal Requirement or order to which Buyer may be subject; or

(iii) any Contract to which Buyer is a party or by which Buyer may be bound.

Except for the Consents identified in Section 7, Buyer is not and will not be required to obtain any Consent from any Person in connection with the execution and delivery of this Agreement or the Related Agreements to which Buyer is a party or the consummation or performance of any of the Contemplated Transactions.

4.3 Certain Proceedings. There is no pending Proceeding that has been commenced against Buyer and that challenges, or may have the effect of preventing, delaying, making illegal, or otherwise interfering with, any of the Contemplated Transactions. To Buyer's Knowledge, no such Proceeding has been Threatened.

4.4 Brokers or Finders. Buyer and its officers and agents have incurred no obligation or liability, contingent or otherwise, for brokerage or finders' fees or agents' commissions or other similar payment in connection with this Agreement or any of the Contemplated Transactions for which Sellers will have any Liability.

5. COVENANTS OF SELLERS PRIOR TO AND FOLLOWING CLOSING DATE

5.1 Access and Investigation. Between the date of this Agreement and the Closing Date, Sellers will, and will cause their Representatives to, (a) afford to Buyer and its Representatives full and free access (subject to reasonable advance notice from Buyer to authorized personnel designated by the Sellers from time to time, which may be verbal) to Collaborative's senior executive management, Seller's Accountant and counsel, as well as access to Sellers' properties, Contracts, books and records, and other documents and data, (b) furnish Buyer and Buyer's Representatives with copies of all such Contracts (other than Site Contracts), books and records, and other existing documents and data as Buyer may reasonably request, (c) provide the Buyer and Buyer's Representatives with

access to all Site Contracts, and (d) furnish Buyer and Buyer's Representatives with such additional financial, operating, and other data and information as Buyer may reasonably request; provided, however, that Buyer and its Representative will, in connection with the performance of such investigation, use commercially reasonable efforts to avoid materially interfering with the day-to-day operations of the Clinical Business. Any and all information furnished by the Sellers to or otherwise obtained

by the Buyer pursuant to this Section 5.1 shall, pending the closing, remain subject to the provisions of the Confidentiality Agreement and the provisions of Section 11.3.

5.2 Operation of the Clinical Business of Sellers. Between the date of this Agreement and the Closing Date, unless otherwise agreed in writing by Buyer, Sellers will:

(i) conduct the Clinical Business only in the Ordinary Course of Business;

(ii) use commercially reasonable efforts to preserve intact the current business organization of Sellers with respect to the Clinical Business, keep available the services of the current officers, employees, and agents of Sellers, and maintain the relations and good will with suppliers, customers, landlords, creditors, employees, agents, and others having business relationships with Sellers;

(iii) cooperate with Buyer on all transitional matters, and in communications and dealings with third parties be supportive of Buyer and the Contemplated Transactions;

(iv) confer with Buyer from time to time as reasonably requested by the Buyer concerning operational matters of a material nature; and

(v) as and when reasonably requested by the Buyer from time to time, otherwise report periodically to Buyer concerning the status and operation of the Clinical Business.

5.3 Negative Covenant. Except as otherwise expressly permitted by this Agreement, between the date of this Agreement and the Closing Date, Sellers will not, without the prior written consent of Buyer, take any affirmative action, or fail to take any reasonable action within their control, as a result of which any of the changes or events listed in Section 3.13 is likely to occur.

5.4 Required Approvals. As promptly as practicable after the date of this Agreement, Sellers will make all filings required by Legal Requirements to be made by them in order to consummate the Contemplated Transactions. Between the date of this Agreement and the Closing Date, Sellers will reasonably (a) cooperate with Buyer with respect to all filings that Buyer elects to make or is required by Legal Requirements to make in connection with the Contemplated Transactions (including any filing under the HSR Act), and (b) cooperate with Buyer in obtaining all Consents that may be required to complete the Contemplated Transactions.

5.5 Notification. Between the date of this Agreement and the Closing Date, Sellers will promptly notify Buyer in writing if Sellers become aware of any fact or condition that causes or constitutes a Breach of any of Sellers' representations and warranties in any material respect as of the date of this Agreement, or if Sellers become aware of the occurrence after the date of this Agreement of any fact or condition that would (except as expressly contemplated by this Agreement) cause or constitute a Breach of any such representation or warranty in any material respect had such representation or warranty been made as of the time of occurrence or discovery of such fact or condition. Should any fact or condition require any change in the Schedules to this Agreement if the Schedules were dated the date of the

occurrence or discovery of any such fact or condition, Sellers will promptly deliver to Buyer a supplement to the appropriate Schedule specifying such change. During the same period, Sellers will promptly notify Buyer of the occurrence of any Breach of any covenants of Sellers in this Agreement or of the occurrence of any event that may reasonably make the satisfaction of the conditions in Section 7 impossible or unlikely. Delivery of such notification or supplement will be for information purposes only and will not modify in any respect any representation, warranty, covenant, obligation or condition or other provision contained in this Agreement or in any Related Agreement.

5.6 No Negotiation.

(a) From the date hereof until the Closing Date or the earlier termination of this Agreement pursuant to Section 9, Sellers will not, nor will they cause or permit any of their respective Representatives to, directly or indirectly solicit, initiate, or encourage any inquiries or proposals from, discuss or negotiate with, provide any nonpublic information to, or consider the merits of any inquiries or proposals from, any Person (other than Buyer) relating to any transaction involving the sale of the Clinical Business or the Acquired Assets (an "Acquisition Proposal"); provided, however, that nothing contained in this Section 5.6 or any other provision hereof shall prohibit Collaborative or the Collaborative Board from engaging in negotiations or soliciting proposals concerning a possible transaction involving DataTRAK or the Excluded Assets, including a possible sale, merger or other transaction not involving the Clinical Business or the Acquired Assets; provided further that nothing contained in this Section 5.6 or any other provision hereof shall prohibit Collaborative or the Collaborative Board from (i) taking and disclosing to Collaborative's shareholders a position with respect to a tender or exchange offer by a third party pursuant to Rules 14d-9 and 14e-2 promulgated under the 34 Act, or (ii) making such disclosure to Collaborative's shareholders as, in the good faith judgment of the Collaborative Board, after receiving advice from outside counsel, is required under applicable law, provided that Collaborative may not, except as permitted by Section 5.6(b), withdraw or modify, or propose to withdraw or modify, its position with respect to the Contemplated Transactions or approve or recommend, or propose to approve or recommend any Acquisition Proposal, or enter into any agreement with respect to any Acquisition Proposal. Collaborative will immediately cease any existing activities, discussions or negotiations with any parties conducted heretofore with respect to any Acquisition Proposal.

(b) Notwithstanding the foregoing, prior to the Closing Date, Collaborative may respond to an unsolicited request for information concerning Collaborative from any corporation, partnership, person or other entity or group pursuant to appropriate confidentiality agreements, and may negotiate and participate in discussions and negotiations with such entity or group concerning an Acquisition Proposal if such entity or group has submitted a bona fide written proposal to Collaborative relating to any such transaction which the Collaborative Board determines in good faith, after receiving advice from its legal counsel and consulting with its financial advisors, represents a superior transaction to the Contemplated Transaction (a "Superior Proposal"). Collaborative will promptly notify Buyer of the existence of any proposal or inquiry received by Collaborative, the identity of the party making such proposal or inquiry, and the terms (both initial and modified) of any such proposal or inquiry (an will disclose any written materials delivered in connection therewith) and Collaborative will keep Buyer reasonably informed of the status (including amendments or proposed amendments) of any such proposal or inquiry.

Collaborative will promptly provide to Buyer any material non-public information regarding Collaborative provided to any other party which was not previously provided to Buyer. At any time following notification to Buyer of Collaborative's intent to do so (which notification shall include the identity of the bidder and the material terms and conditions of the proposal) and if Collaborative has otherwise complied with the terms of this Section 5.6(b), the Collaborative Board may withdraw or modify its approval or recommendation of the Contemplated Transactions and may enter into an agreement with respect to a Superior Proposal, provided it shall concurrently with entering into such agreement pay or cause to be paid to Buyer the Termination Fee

and the Expense Fee. If Collaborative shall have notified Buyer of its intent to enter into an agreement with respect to a Superior Proposal in compliance with the preceding sentence and has otherwise complied with such sentence, Collaborative may enter into an agreement with respect to such Superior Proposal.

5.7 Best Efforts. Between the date of this Agreement and the Closing Date, Sellers will use their reasonable best efforts to cause the conditions in Sections 7 and 8 to be satisfied.

5.8 HSR Act Filing. Seller agrees to pay one-half (1/2) of the filing fees associated with any filings made by Buyer under the HSR Act in connection with the Contemplated Transactions.

5.9 Labor Matters.

(a) Sellers shall terminate all of their employees (other than employees who are parties to employment agreements included in the Assigned Contracts) as of the Closing Date and shall take all actions which are necessary or appropriate in connection therewith. Without limiting the generality of the foregoing, Sellers shall provide appropriate and compliant advance notices of termination pursuant to and in accordance with all provisions of (i) WARN and all other state and local plant closing laws (if and to the extent applicable), and (ii) all other Legal Requirements. In this regard, Sellers will identify all such notification requirements to Buyer and coordinate the content and timing of such notices with Buyer.

(b) Except as otherwise provided in Section 5.9(d), Sellers shall liquidate and pay or make adequate provision for all Liabilities accrued through the Closing Date for compensation, including salary, wages, bonuses, overtime premiums, and vacation benefits, with respect to employees of Sellers, provided that payments to such employees for accrued vacation benefits shall be paid directly to such employees at or prior to Closing.

(c) Sellers shall make available to the Buyer all personnel information to allow Buyer to evaluate Sellers' employees engaged in the Clinical Business in connection with Buyer's decision of which employees of Sellers are to be hired as Buyer's employees following the Closing.

(d) Subject to Buyer's satisfactory review of the employees identified on SCHEDULE 5.9(d), pursuant to and in accordance with the Buyer's standard and customary pre-employment review and screening practices, the Buyer covenants and agrees to

(i) offer employment to those employees of Sellers identified on SCHEDULE 5.9(d) immediately after the Closing and (ii) assume (as part of the Assumed Liabilities) those severance obligations of such employees described on Schedule 5.9(d) in connection therewith. The Sellers shall provide the Buyer with reasonable assurances prior to the Closing that such employees will accept Buyer's offer of employment herein described.

5.10 Subsequent Financial Statements. As soon as practicable after the end of each month during the period from the date of this Agreement until the Closing Date, and in no event later than twenty-five (25) days after the end of each such month, Sellers will prepare and promptly deliver to Buyer copies of an unaudited balance sheet and related unaudited income and cash flow statements for Sellers relating to the Clinical Business, the Acquired Assets, and the Assumed Liabilities for the month then ended. All financial statements delivered pursuant to this Section 5.10 will, when delivered, comply in all respects with, and otherwise be subject to, the representations and warranties set forth herein including those set forth in Section 3.3.

5.11 Excluded Liabilities. Sellers shall pay, perform or discharge, or cause to be paid, performed or discharged, when due all Excluded Liabilities in the Ordinary Course of Business.

5.12 Voting of Shares. Concurrently with the execution and delivery of this Agreement, the Sellers shall cause all members of the Collaborative Board and Collaborative's executive management who own shares of Collaborative common stock to deliver a letter to the Buyer in the form of EXHIBIT L attached hereto.

5.13 Collaborative Shareholder Approvals. Collaborative agrees to take, in accordance with applicable law, applicable stock exchange rules, its Articles of Incorporation and its Code of Regulations, all action necessary to convene, and shall hold, an appropriate meeting of shareholders of Collaborative to consider and vote upon the approval of the Contemplated Transactions and any other matters required to be approved by Collaborative's shareholders for consummation of the Contemplated Transactions as promptly as practicable after this Agreement is executed. Unless the Collaborative Board, after having consulted with and considered the written advice of outside counsel, has determined in good faith that it is otherwise required in order to discharge properly the directors' fiduciary duties in accordance with the Ohio General Corporation law, the Collaborative Board shall recommend such approval, and Collaborative shall take all reasonable lawful action to solicit such approval by its shareholders.

## 6. COVENANTS OF BUYER PRIOR TO CLOSING DATE

6.1 Approvals of Governmental Bodies. As promptly as practicable after the date of this Agreement, Buyer will, and will cause each of its Related Persons to, make all filings required by Legal Requirements to be made by them to consummate the Contemplated Transactions. Between the date of this Agreement and the Closing Date, Buyer will, and will cause each Related Person of Buyer to, (a) cooperate with Sellers with respect to all filings that Sellers are required by Legal Requirements to make in connection with the Contemplated Transactions, and (b) cooperate with Sellers in obtaining all Consents identified in SCHEDULE 3.2(b); provided that Buyer shall in no event be required to dispose of or make any change in any portion of its business or to incur any other significant burden to obtain a Governmental Authorization.

6.2 Best Efforts. Except as set forth in the proviso to Section 6.1, between the date of this Agreement and the Closing Date, Buyer shall use its best efforts to cause the conditions in Sections 8.1, 8.2, 8.4 and 8.5 to be satisfied.

## 7. CONDITIONS PRECEDENT TO BUYER'S OBLIGATION TO CLOSE

Buyer's obligation to purchase the Acquired Assets and assume the Assumed Liabilities and to take the other actions required to be taken by Buyer at the Closing is subject to the satisfaction, at or prior to the Closing, of each of the following conditions (any of which may be waived by Buyer, in whole or in part):

7.1 Accuracy of Representations. All of Sellers' representations and warranties in this Agreement and any Related Agreement (considered collectively), and each of these representations and warranties (considered individually), must have been accurate in all material respects as of the date of this Agreement, and must be accurate in all material respects as of the Closing Date as if made on the Closing Date, without giving effect to any supplement to any Schedule made after the date of this Agreement.

7.2 Sellers' Performance.

(a) All of the covenants and obligations that Sellers are required to perform or to comply with pursuant to this Agreement at or prior to the Closing (considered collectively), and each of these covenants and obligations (considered individually), must have been duly performed and complied with in all material respects.

(b) Sellers must have delivered, or caused to be delivered, each of the documents required to be delivered pursuant to Section 2.6 and each of the other covenants and obligations in Sections 5.4, 5.6 and 5.7 must have been performed and complied with in all respects.

7.3 Consents. Each of the Consents identified in SCHEDULE 3.2(b) must have been obtained and must be in full force and effect (including the consents of the lessors to Sellers' assignment of the Leases to Buyer hereunder).

7.4 ADDITIONAL DOCUMENTS. Sellers shall have caused the following documents to be delivered to Buyer:

(a) an opinion of Calfee, Halter $Griswold LLP, addressed to Buyer and dated the Closing Date, in the form of EXHIBIT M hereto; and

(b) such other documents as Buyer may reasonably request for the purpose of (i) enabling its counsel to provide the opinion referred to in Section 8.4(a), (ii) evidencing the accuracy of any of Sellers' representations and warranties, (iii) evidencing the performance by Sellers of, or the compliance by Sellers with, any covenant or obligation required to be performed or complied with by Sellers, (iv) evidencing the satisfaction of any condition referred to in this Section 7, or (v) otherwise facilitating the consummation or performance of any of the Contemplated Transactions.

7.5 No Proceedings. Since the date of this Agreement, there must not have been commenced or Threatened

against Buyer, or against any Person affiliated with Buyer, any Proceeding (a) involving any challenge to, or seeking damages or other relief in connection with, any of the Contemplated Transactions, or (b) that may have the effect of preventing, delaying, making illegal, or otherwise interfering with any of the Contemplated Transactions.

7.6 No Prohibition. Neither the consummation nor the performance of any of the Contemplated Transactions will, directly or indirectly (with or without notice or lapse of time), contravene, or conflict with, or result in a violation of, or cause Buyer or any Person affiliated with Buyer to suffer any adverse consequence under, any applicable Legal Requirement or Order.

7.7 HSR Act. Any waiting period applicable to the Contemplated Transactions under the HSR Act shall have been terminated or shall have expired.

7.8 Bulk Sales. Sellers shall have furnished to Buyer satisfactory evidence that Sellers have complied with all bulk sales, bulk clearance, and related Legal Requirements in connection with the sale of the Acquired Assets.

7.9 No Material Adverse Change. Since the date of this Agreement, there shall have been no material adverse change in the operations, properties, assets, Liabilities, or financial condition of the Sellers relating to the Clinical Business or any material adverse change in the Clinical Business taken as a whole, and no event, condition or circumstance shall exist that could reasonably be expected to result in such a material adverse change.

7.10 Supplement to Schedule 3.13. Because the parties anticipate changes will be necessary to SCHEDULE 3.13 by reason of clause (vi) of Section 3.13 and the operation of the Clinical Business pending the Closing, the Sellers shall have delivered to the Buyer prior to the Closing a supplement to SCHEDULE 3.13 to reflect matters required to be disclosed to the Buyer under clause (vi) of Section 3.13 by reason of the Sellers' operation of the Clinical Business pending the Closing, as aforesaid.

7.11 Delivery of Site Contracts. Not less than five (5) business days prior to the Closing Date, the Sellers shall have delivered to the Buyer true, correct and complete copies of all Site Contract then in effect, which shall be subject to the review and approval of the Buyer.

## 8. CONDITIONS PRECEDENT TO SELLERS' OBLIGATION TO CLOSE

Sellers' obligation to sell the Acquired Assets and to take the other actions required to be taken by Sellers at the Closing is subject to the satisfaction, at or prior to the Closing, of each of the following conditions (any of which may be waived by Sellers, in whole or in part):

8.1 Accuracy of Representations. All of Buyer's representations and warranties in this Agreement (considered collectively), and each of those representations and warranties (considered individually), must have been accurate in all material respects as of the date of this Agreement and must be accurate in all material respects as of the Closing Date as if made on the Closing Date.

8.2 Buyer's Performance.

(a) All of the covenants and obligations that Buyer is required to perform or to comply with pursuant to this Agreement at or prior to the Closing (considered collectively),

and each of these covenants and obligations (considered individually), must have been performed and complied with in all material respects.

(b) Buyer must have delivered each of the documents required to be delivered by Buyer pursuant to Section 2.6 and must have made, or caused to have been made, the Closing Cash Payments.

8.3 Consents. Each of the Consents identified in SCHEDULE 3.2(b) must have been obtained and must be in full force and effect.

8.4 Additional Documents. Buyer must have caused the following documents to be delivered to Sellers:

(a) an opinion of in-house counsel to Buyer, dated the Closing Date, in the form of EXHIBIT M; and

(b) such other documents as Sellers may reasonably request for the purpose of (i) enabling their counsel to provide the opinion referred to in Section 7.4(a), (ii) evidencing the accuracy of any representation or warranty of Buyer, (iii) evidencing the performance by Buyer of, or the compliance by Buyer with, any covenant or obligation required to be performed or complied with by Buyer, (iv) evidencing the satisfaction of any condition referred to in this Section 8, or (v) otherwise facilitating the consummation of any of the Contemplated Transactions.

8.5 Shareholder Approval. This Agreement and the Contemplated Transactions shall have been approved by the affirmative vote of the shareholders of Collaborative in accordance with applicable law. The Sellers may terminate and cancel this Agreement without liability to the Buyer if such shareholder approval is not obtained and the Sellers have not otherwise breached any provision of this Agreement by providing written notice thereof to the Buyer by no later than April 30, 1999. Failure by the Sellers to furnish any such written notice to the Buyer pursuant to this Section 8.5 shall constitute a waiver by the Sellers of the condition contained herein.

8.6 No Injunction. There must not be in effect any Legal Requirement or any injunction or other Order that prohibits the sale of the Acquired Assets by Sellers to Buyer.

## 9. TERMINATION

9.1 Termination Events. This Agreement may, by

notice given prior to or at the Closing, be terminated:

(a) by either Buyer or Sellers if a material Breach of any provision of this Agreement has been committed by the other party and such Breach has not been waived or cured to the reasonable satisfaction of the non-breaching party within fifteen (15) days following the breaching party's receipt of

written notice of such Breach from the non-breaching party;

(b) by Buyer if any of the conditions in Section 7 has not been satisfied as of the Closing Date or if satisfaction of such a condition is or becomes impossible (other than through the failure of Buyer to comply with its obligations under this Agreement) and Buyer has not waived such condition on or before the Closing Date;

(c) by Sellers, if any of the conditions in Section 8 has not been satisfied as of the Closing Date or if satisfaction of such a condition is or becomes impossible (other than through the failure of Sellers to comply with their obligations under this Agreement) and Sellers have not waived such condition on or before the Closing Date;

(d) by mutual consent of Buyer and Sellers;

(e) by the Sellers if a Superior Proposal is accepted in accordance with Section 5.6(b); provided that, the Sellers shall not be permitted to terminate this Agreement pursuant to this Section 9.1(e) unless the Sellers have provided the Buyer with written notification thereof that includes the identity of the Person making such Acquisition Proposal and a description of the material terms of such Acquisition Proposal in accordance with Section 5.6 and the Sellers' intent to so terminate this Agreement; provided, further, such right of termination shall be expressly conditioned upon payment by the Sellers to the Buyer of the Termination Fee and Expense Fee in the manner provided by Section 9.3; or

(f) by either Buyer or Sellers if the Closing has not occurred (other than through the failure of any party seeking to terminate this Agreement to comply fully with its obligations under this Agreement) on or before April 30, 1999, or such later date as the parties may agree upon.

9.2 Effect of Termination. Each party's right of termination under Section 9.1 is in addition to any other rights it may have under this Agreement or otherwise, and the exercise of a right of termination will not be an election of remedies or relieve any party hereto of liability for any Breach of this Agreement. Subject to the provisions of the immediately preceding sentence, if this Agreement is terminated pursuant to Section 9.1, all further obligations of the parties under this Agreement will terminate, except that the obligations in Sections 9.3, 11.1 and 11.3 will survive.

9.3 Termination Fee; Expense Fee. Notwithstanding anything contained herein to the contrary, if this Agreement is terminated by the Sellers pursuant to the provisions of Section 9.1(e), the Sellers shall promptly, but in no event later than one (1) business day after the date on which such right to terminate is exercised, pay to Buyer a fee of One Million Dollars ($1,000,000) (the "Termination Fee") and shall also reimburse Buyer for all reasonable out-of-pocket expenses and fees payable by it or its affiliates up to the maximum aggregate amount of Two Hundred Thousand Dollars ($200,000) (collectively, the "Expenses") (including, without limitation, fees and expenses of all counsel, printers, banks, accountants, and investment banking firms, and their respective agents) (the "Expense Fee") related to the Contemplated Transactions, such amount to be paid in cash in the immediately available funds by wire transfer to an account designated by Buyer.

10. INDEMNIFICATION; REMEDIES

10.1 Survival. Subject to the limitations set forth in Section 10.5, all representations, warranties, covenants, and obligations in this Agreement, the Schedules to this Agreement, and the Related Agreement will survive the Closing. The right to indemnification, reimbursement, or other remedy based on such representations, warranties, covenants, and obligations will not be affected by any investigation conducted with respect to, or any Knowledge acquired (or capable of being acquired) about the accuracy or inaccuracy of or compliance with, any such representation, warranty, covenant, or obligation. The waiver of any condition based on the accuracy of any representation or warranty, or on the performance of or compliance with any covenant or obligation, will not affect the right to indemnification, reimbursement, or other remedy based on such representations, warranties, covenants, and obligations.

10.2 Indemnification and Reimbursement by Sellers. Sellers, jointly and severally, shall indemnify and hold harmless Buyer and its Representatives, stockholders, controlling persons, and affiliates (collectively, the "Indemnified Persons"), and will reimburse the Indemnified Persons, for any loss, Liability, claim, damage and expense (including costs of investigation and defense and reasonable attorneys' fees), whether or not involving a third-party claim (collectively, "Damages"), arising from or in connection with any of the following:

(a) any Breach of any representation or warranty made by Sellers in this Agreement, the Schedules to this Agreement, the certificate delivered pursuant to Section 2.6(a)(v), or any other Related Agreements delivered by Sellers pursuant to or in connection with this Agreement;

(b) any Breach by any Seller of any covenant or obligation of any Seller in this Agreement or any Related Agreement;

(c) the Excluded Liabilities;

(d) any Environmental, Health and Safety Liabilities arising out of or relating to (i) the ownership, operation or condition at any time on or prior to the Closing Date of any of the Facilities or any other properties or assets in which any Seller has or had an interest; (ii) any Hazardous Materials or other contaminants that were present at such Facilities or such other properties or assets at any time on or prior to the Closing Date; (iii) any Hazardous Materials or other contaminants, wherever located, that were, or were allegedly, generated, transported, stored, treated, Released or otherwise handled or any hazardous activities that were, or were allegedly, conducted by any Seller or by any other Person for whose conduct they are or may be held responsible; and (iv) any bodily injury (including illness, disability and death), personal injury, and property damage or other damage of or to any Person, in any way arising from or allegedly arising from any hazardous activity conducted or allegedly conducted with respect to such Facilities or the operations of any Seller prior to the Closing Date or from Hazardous Material that was present on or before the Closing Date on or at such Facilities or that was Released or allegedly Released at any time on or prior to the Closing Date by any Seller or its predecessors;

(e) any claim by any Person for brokerage or finder's fees or commissions or similar payments based upon any agreement or understanding alleged to have been made by any such Person with any Seller (or any Person acting on such Seller's

behalf) in connection with any of the Contemplated Transactions; or

(f) without limiting the generality of Section 10.2(c), any failure by the Sellers to comply with all bulk sales, bulk clearance, and related legal requirements in connection with the sale of the Acquired Assets or the Contemplated Transactions.

10.3 Indemnification and Reimbursement by Buyer. Buyer shall indemnify and hold harmless Sellers, and will reimburse Sellers, for any Damages arising from or in connection with any of the following:

(a) any Breach of any representation or warranty made by Buyer in this Agreement or in any Related Agreement delivered by Buyer pursuant to or in connection with this Agreement;

(b) any Breach by Buyer of any covenant or obligation of Buyer in this Agreement or any Related Agreement; or

(c) any claim by any Person for brokerage or finder's fees or commissions or similar payments based upon any agreement or understanding alleged to have been made by such Person with Buyer (or any Person acting on its behalf) in connection with any of the Contemplated Transactions.

10.4 Procedure for Indemnification - Third Party Claims.

(a) Promptly after receipt by an indemnified party under Section 10.2 or 10.3 of notice of the commencement of any Proceeding against it, such indemnified party shall, if a claim is to be made against an indemnifying party under such Section, give notice to the indemnifying party of the commencement of such claim, but the failure to notify the indemnifying party will not relieve the indemnifying party of any liability that it may have to any indemnified party, except to the extent that the indemnifying party demonstrates that the defense of such action is materially prejudiced by the indemnifying party's failure to give such notice.

(b) If any Proceeding referred to in Section 10.4(a) is brought against an indemnified party and it gives notice to the indemnifying party of the commencement of such Proceeding, the indemnifying party shall be entitled to participate in such Proceeding and, if (i) the indemnifying party acknowledges in writing to the indemnified party, without qualification or limitation, its obligation to indemnify the indemnified party for all Damages arising from such Proceeding and (ii) provides the indemnified party with satisfactory assurances that it has the financial ability to fully indemnify the indemnified party for such Damages, the indemnifying party shall assume the defense of such Proceeding with counsel reasonably satisfactory to the indemnified party. If notice is given to an indemnifying party of the commencement of any Proceeding and the indemnifying party does not, within ten days after the indemnified party's notice is given, give notice to the indemnified party of its election to assume the defense of such Proceeding, the indemnifying party will be bound by any determination made in such Proceeding or any compromise or settlement effected by the indemnified party.

(c) Notwithstanding the foregoing, if an indemnified party determines in good faith that there is a reasonable probability that a Proceeding may adversely affect it or its Related Persons other than as a result of monetary damages for which it would be entitled to indemnification under this Agreement, or if an indemnified party reasonably believes that it may not receive the indemnification to which it may be entitled from the indemnifying party, the indemnified party may, by notice to the indemnifying party, assume the exclusive right to defend, compromise, or settle such Proceeding, but the indemnifying party will not be bound by any determination of a Proceeding so defended or any compromise or settlement effected without its consent (which may not be unreasonably withheld).

10.5 Limitation of Claims.

(a) Except as set forth below, there shall be no liability under or with respect to any of the warranties or representations of Sellers or Buyer in or under this Agreement or in any Schedule hereto, unless a claim for indemnity is given by the party seeking indemnification within the six (6) month period immediately following the Closing Date, except for Damages arising as a result of, or in connection with, or with respect to the following, with respect to which there shall be no limitation as to the time period within which an indemnity claim must be made by Buyer hereunder: (i) the Excluded Liabilities; or (ii) the Breach of any agreements or covenants of any Seller hereunder.

(b) The maximum aggregate amount recoverable by Buyer from Sellers pursuant to this Section 10 arising by reason or Breach of a representation or warranty of Sellers hereunder shall be limited to the sum of One Million Dollars ($1,000,000); provided, however, (i) the Buyer shall be entitled to indemnification hereunder only when the aggregate of all such claims exceeds One Hundred Thousand Dollars ($100,000) (the "Threshold Amount"), and (ii) all such claims shall be recoverable by the Buyer after the Threshold Amount of claims has been reached.

(c) The maximum amount recoverable by Sellers from Buyer pursuant to this Section 10 arising by reason or Breach of a representation or warranty of Buyer hereunder shall be limited to the sum of One Million Dollars ($1,000,000); provided, however, (i) the Sellers shall be entitled to indemnification hereunder only when the aggregate of all such claims exceed the Threshold Amount, and (ii) all such claims shall be recoverable by the Sellers after the Threshold Amount has been reached.

(d) Anything to the contrary set forth in this Section 10 notwithstanding, the provisions of this Section 10 shall not apply to any Damages relating to, or arising out of, or in connection with, the fraud of any party hereto.

11. GENERAL PROVISIONS

11.1 Expenses. Except as otherwise expressly provided in this Agreement, each party to this Agreement will bear its respective expenses incurred in connection with the preparation, execution, and performance of this Agreement and the Contemplated Transactions, including all fees and expenses of agents, representatives, counsel, and accountants.

11.2 Public Announcements. Any public announcement or similar publicity with respect to this Agreement or the Contemplated Transactions will be issued, if at all, at such time and in such manner as Buyer and Sellers mutually determine. Unless consented to by Buyer in advance or required by Legal Requirements, prior to the Closing the Sellers shall keep this Agreement strictly confidential and may not make any disclosure of this Agreement to any Person. Sellers and Buyer will consult with each other concerning the means by which Seller's employees, customers, and suppliers and others having dealings with Seller will be informed of the Contemplated Transactions, and both the Sellers and the Buyer will have the right to be present for any such communication. The Buyer acknowledges that the Sellers intend to issue a press release with respect to the Contemplated Transactions following the execution of this Agreement and that the form of such press release will be subject to the prior approval of the Buyer.

11.3 Confidentiality. Between the date of this Agreement and the Closing Date, Buyer and Sellers will maintain in confidence, and will cause the Related Persons and Representatives of Buyer and Sellers to maintain in confidence any confidential or proprietary written, oral, or other information obtained from the other party or such parties' Related Persons or Representatives in connection with this Agreement or the Contemplated Transactions, unless (a) such information is already known to such party or to others not bound by a duty of confidentiality or such information becomes publicly available through no fault of such party, (b) the use of such information is necessary or appropriate in making any filing or obtaining any consent or approval required for the consummation of the Contemplated Transactions, or (c) the furnishing or use of such information is required by or necessary or appropriate in connection with a Legal Requirement or Proceeding. Without limiting the generality of the foregoing, if the Contemplated Transactions are not completed, the Buyer agrees to make no use whatsoever of any of the confidential information made available to it by the Sellers including, without limitation, customer lists, Sponsor Contracts, or Site Contracts and each party will

return or destroy as much of such written information as the other party may reasonably request.

11.4 Notices. All notices, consents, waivers, and other communications under this Agreement must be in writing and will be deemed to have been duly given when (a) delivered by hand (with written confirmation of receipt), (b) sent by telecopier (with written confirmation of receipt), provided that a copy is also mailed to such party, or (c) when received by the addressee, if sent by a nationally recognized overnight delivery service (receipt requested) or by mailing, certified mail (return receipt requested), in each case to the appropriate addresses and telecopier numbers set forth below (or to such other addresses and telecopier numbers as a party may designate by notice to the other parties):

Sellers: Collaborative Clinical Research, Inc.
20600 Chagrin Boulevard, Suite 1050
Cleveland, Ohio 44122

Attn: Mr. Jeffrey A. Green, Chief

Executive Officer
Telecopy No.: (216) 491-3888

with a copy to: Calfee, Halter & Griswold LLP

1400 McDonald Investment Center

800 Superior Avenue
Cleveland, Ohio 44114-2688

Attn: Thomas F. McKee, Esquire
Telecopy No.: (216) 241-0816

Buyer: The West Company, Incorporated
101 Gordon Drive

Lionville, Pennsylvania 19341-0645

Attn: Mr. Michael A. Anderson, Vice President, Strategic Planning & New Clinical Business Development
Telecopy No.: (610) 594-3010

with a copy to: The West Company, Incorporated
101 Gordon Drive
Lionville, Pennsylvania 19341-0645

Attn: John R. Gailey, III, Esquire
Telecopy No.: (610) 594-3013

11.5 Jurisdiction; Service of Process. Any action or proceeding seeking to enforce any provision of, or based on any right arising out of, this Agreement may be brought against any of the parties in the courts of the Commonwealth of Pennsylvania, County of Philadelphia, or, if it has or can acquire jurisdiction, in the United States District Court for the Eastern District of Pennsylvania, and each of the parties consents to the jurisdiction of such courts (and of the appropriate appellate courts) in any such action or proceeding and waives any objection to venue laid therein.

11.6 Further Assurances. The parties agree (a) to furnish upon request to each other such further information, (b) to execute and deliver to each other such other documents, and (c) to do such other acts and things, all as the other party may reasonably request for the purpose of carrying out the intent of this Agreement and the Related Agreements and the documents referred to in this Agreement and the Related Agreements. Without limiting the foregoing, Sellers shall assist Buyer in obtaining all permits, licenses, approvals and other Governmental Authorizations which may be necessary or appropriate in connection with the Contemplated Transactions.

11.7 Waiver. The rights and remedies of the parties to this Agreement are cumulative and not alternative. Neither the failure nor any delay by any party in exercising any right, power, or privilege under this Agreement or the documents referred to in this Agreement will operate as a waiver of such right, power, or privilege, and no single or partial exercise of any such right, power, or privilege will preclude any other or further exercise of such right, power, or privilege or the exercise of any other right, power, or privilege.

11.8 Entire Agreement and Modification. Except as otherwise provided by the last sentence of Section 5.1, this Agreement supersedes all prior agreements between the parties with respect to its subject matter and constitutes (along with the Related Agreements) a complete and exclusive statement of the terms of the agreement between the parties with respect to its and their subject matter. This Agreement may not be amended except by a written agreement executed by the party to be charged

with the amendment.

11.9 Schedules.

(a) The disclosures in the Schedules to this Agreement, and those in any supplements thereto, relate only to the representations and warranties in the Section of the Agreement to which they expressly relate and not to any other representation or warranty in this Agreement.

(b) In the event of any inconsistency between the statements in the body of this Agreement and those in the Schedules (other than an exception expressly set forth in a Schedule with respect to a specifically identified representation or warranty), the statements in the body of this Agreement will control.

11.10 Assignments, Successors, and No Third-Party Rights. Neither party may assign any of its rights under this Agreement without the prior consent of the other parties, except that Buyer (a) may assign any of its rights under this Agreement to any affiliate of Buyer (but such assignment will not relieve Buyer of any of its obligations under this Agreement), (b) shall have the right to require Sellers to transfer and convey at the Closing any of the Acquired Assets specified by Buyer to one or more affiliates of Buyer, and (c) assign or pledge all of its rights hereunder to the financial institutions providing financing to Buyer, as security for Buyer's obligations to such institutions. Subject to the preceding sentence, this Agreement will apply to, be binding in all respects upon, and inure to the benefit of the successors and permitted assigns of the parties. Nothing expressed or referred to in this Agreement will be construed to give any Person other than the parties to this Agreement any legal or equitable right, remedy, or claim under or with respect to this Agreement or any provision of this Agreement. This Agreement and all of its provisions and conditions are for the sole and exclusive benefit of the parties to this Agreement and their successors and assigns.

11.11 Severability. If any provision of this Agreement is held invalid or unenforceable by any court of competent jurisdiction, the other provisions of this Agreement will remain in full force and effect. Any provision of this Agreement held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

11.12 Section Headings. The headings of Sections in this Agreement are provided for convenience only and will not affect its construction or interpretation.

11.13 Time of Essence. With regard to all dates and time periods set forth or referred to in this Agreement, time is

of the essence.

11.14 Governing Law. This Agreement will be governed by and construed under the laws of the Commonwealth of Pennsylvania without regard to conflicts of laws principles.

11.15 Counterparts. This Agreement may be executed in one or more counterparts, each of which will be deemed to be an

original copy of this Agreement and all of which, when taken together, will be deemed to constitute one and the same agreement.

11.16 Use of Name. Buyer will acquire all rights to each corporate name and tradename of each Seller, and any variations and derivations thereof. Accordingly, each Seller will change its name and cause all of their Related Persons, if any, which are not individuals to change their names immediately after the Closing to names that are not similar to such Seller's corporate name, tradename, or any derivation thereof.

11.17 Records Retention. For a period of two (2) years after the Closing Date or until the sale, merger, or liquidation (at least forty-five (45) days' advance written notice of which shall have been furnished by the Sellers to the Buyer), whichever first occurs, Sellers shall afford Buyer access to, and Sellers shall retain and shall not destroy, all of its books, records, Government Authorizations, reports, data, materials, and documents which are not included in the Acquired Assets but which relate to the Clinical Business as conducted prior to the Closing Date.

11.18 Joinder by DataTRAK. Except as otherwise expressly permitted under and pursuant to the Non-Competition Agreement to which DataTRAK is a party, DataTRAK has also executed and delivered this Agreement at the request of Collaborative for the purpose of joining in the provisions of this Agreement to evidence its agreement to transfer and convey to the Buyer, at the Closing, any right, title or interest that DataTRAK may have in or to any of the Acquired Assets and to execute and deliver any and all agreements, documents and instruments reasonably requested by the Buyer in connection therewith.

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

COLLABORATIVE CLINICAL RESEARCH, INC., an Ohio corporation

By_____

Name:
Title:

Attest:_____

Name:
Title:

GFI PHARMACEUTICAL SERVICES, INC., an Indiana corporation

By_____
Name:
Title:

Attest:_____
Name:
Title:

(SIGNATURE LINES CONTINUED ON NEXT PAGE)

CHI COLLABORATIVE HOLDINGS, an Ohio corporation

By_____
Name:

Title:

Attest:_____
Name:
Title:

DATATRAK, INC., an Ohio corporation

By_____
Name:
Title:

Attest:_____
Name:
Title:

("Sellers")

THE WEST COMPANY, INCORPORATED, a Pennsylvania corporation

By_____
Name:
Title:

Attest:_____

Name:
Title:

("Buyer")

EXHIBIT A

THE ACQUIRED ASSETS

The "ACQUIRED ASSETS" to be purchased by Buyer and sold, conveyed, assigned, transferred and delivered on the Closing Date to Buyer by Sellers shall include all right, title and interest in and to all of the assets, rights, privileges, and interests of Sellers used by the Sellers in connection with the Clinical Business, of whatever nature and wherever located, other than the "EXCLUDED ASSETS", including without limitation all of the following:

1. Account Receivable. All accounts receivable and other amounts owed or otherwise payable to any Seller that exist as of the Closing Date.

2. Tangible Personal Property. All items of machinery, equipment, trade fixtures, furnishings, motor vehicles, furniture, and other tangible personal property, including such items as are referred to on EXHIBIT A-2 (but with such additions thereto and deletions therefrom in the Ordinary Course of Clinical Business as may be contemplated or permitted by this Agreement).

3. Assigned Contracts. All of Sellers' rights and interests as of the Closing Date under or relating to the "ASSIGNED CONTRACTS" (as defined below).

4. Claims, Prepayments, Deposits, Etc. All claims, deposits, prepayments, prepaid expenses, refunds, causes of action, chooses in action, rights of recovery, rights of setoff and rights of recoupment.

5. Books and Records. All books, records, ledgers, files, documents, correspondence, lists (including, without limitation, sponsor lists, provider lists, site lists, and prospect lists), plats, architectural plans, drawings, specifications, studies, reports, computer software, systems, procedures manuals, and related materials used in the Acquired Assets.

6. Advertising. All advertising and promotional materials, market research, business plans and projections, artwork, masters, tapes, mats and other similar items pertaining to the Acquired Assets.

7. Permits and Licenses. All transferable

approvals, permits, licenses, orders, registrations, certificates, variances and other Governmental Authorizations.

8. Intellectual Property Assets. Intellectual Property Assets pertaining to the Clinical Business (including, without limitation, the names "Collaborative Clinical Research," GFI Pharmaceutical Services," and "[CHI/WCE] Clinical Evaluations" and any derivations thereof).

The "Assigned Contracts" shall be comprised of the agreements and other instruments identified on SCHEDULE A attached to this EXHIBIT A; PROVIDED, HOWEVER, that if the Consent of any Person is required in order to permit the assignment to Buyer of any such agreement or other instrument, and if such Consent is not obtained on or before the Closing Date, then Buyer may elect, on the Closing Date, either (i) to include such agreement or other instrument among the "Assigned Contracts," or (ii) to exclude such agreement or other instrument from the "Assigned Contracts."

SCHEDULE A

[This SCHEDULE A shall be prepared by Sellers and include, among other things, Employment Agreements being assigned to Buyer (Richard J. Kasmer, William Stigelman, Wade Lange, Gregory A. Folz, Herbert L. Hugill, and David Hirsch), the Leases, the Lab Testing Contracts, the Site Contracts, and the Sponsor Contracts.]

EXHIBIT B

ASSUMED LIABILITIES

The liabilities to be assumed by Buyer pursuant to the Agreement or otherwise in connection with the transactions described therein shall consist only of the following Liabilities (the "Assumed Liabilities") in connection with the operation of the Clinical Business:

1. Assigned Contracts. All obligations of Seller under the Assigned Contracts which are to be performed after, and relate to the period after, the Closing Date (to the extent that the existence of such obligations is ascertainable solely by reference to the written provisions of the Assigned Contracts as disclosed to Buyer before the Closing Date or the descriptions of any oral Assigned Contracts set forth in SCHEDULE 3.14), but specifically excluding any obligations to be performed prior to the Closing and any obligations relating to breaches, defaults or non-performance under any of the Assigned Contracts occurring or commencing prior to the Closing Date.

2. Accrued Expenses; Trade Payables. All accrued expenses and accounts payable of Sellers as of the Closing Date that were incurred in the Ordinary Course of Clinical Business, a list and description (including amounts) of which is attached as EXHIBIT B-2 hereof.

3. Scheduled Severance Obligations. Those severance obligations described on SCHEDULE 5.9(d) for and with respect to those employees of Sellers hired by the Buyer pursuant to Section 5.9(d).

EXHIBIT E

EXCLUDED ASSETS

The Acquired Assets shall not include, and Sellers shall specifically retain, all of the following (the "Excluded Assets"):

1. Cash; Cash Equivalents. All cash and cash equivalents (including marketable equity services and short-term investments) of Sellers as of the Closing Date.

2. Corporate Charters, Etc. The corporate charter, qualifications to conduct business as foreign corporations, arrangements with registered agents relating to foreign qualifications, taxpayer and other identification numbers, seals, minute books, stock transfer books and other documents relating to the organization, maintenance and existence of Seller as a corporation.

3. Rights Under This Agreement. All of the rights of the Sellers under this Agreement or under any Related Agreement between Sellers on the one hand and the Buyer on the other hand entered into on or after the date of this Agreement.

4. Non-Clinical Business Assets. All of the assets, rights, privileges, and interests of Sellers not used in connection with the Clinical Business.

5. DataTRAK. The capital stock of DataTRAK owned by Collaborative.

6. Tax Records. The Sellers' tax returns and related corporate records.

7. Privileged Information. All information protected by the Sellers' attorney-client or attorney work product privilege.

8. Third-Party Claims. Claims and similar rights of any Seller against third parties which are not related to the Clinical Business.

9. Shared Assets. [TO BE COVERED IN SELLER AGREEMENTS].

EXHIBIT G-1

The Sellers and the Buyer shall in good faith use their joint best efforts to negotiate a mutually satisfactory Services Agreement prior to the Closing, pursuant to which the parties shall share with one another certain assets and/or services which relate to both the Clinical Business and other businesses of the Sellers and DataTRAK (including, by way of example but not limitation, accounting, payroll and telephone systems). The execution and delivery of the Services Agreement shall be a condition precedent to the parties' obligation to complete the Contemplated Transactions.

Exhibit G-2

Seller Agreement required by EXHIBIT G-2 shall be in substantially the following form.

December 21, 1998

The West Company, Incorporated

101 Gordon Drive
Lionville, Pennsylvania 19341

Attention: Mr. Michael Anderson

Dear Mr. Anderson:

On December 21, 1998, The West Company, Incorporated ("Buyer"), Collaborative Clinical Research, Inc. ("Collaborative"), GFI Pharmaceutical Services, Inc. ("GFI"), and Collaborative Holdings, Inc. ("CHI") (Collaborative, GFI and CHI being collectively referred to herein as the "Sellers") entered into an Asset Purchase Agreement (the "Purchase Agreement"). Pursuant to the terms of the Purchase Agreement, the Sellers agreed to sell and the Buyer agreed to purchase substantially all of the assets of the Sellers relating to the Clinical Business

(as defined in the Purchase Agreement). DataTRAK, Inc. ("DataTRAK") is engaged in, among other things, the business of developing and providing software, technology and related electronic data handling services (as more fully described on Exhibit "A" on the Non-Competition Agreement to be executed by the Sellers and DataTRAK pursuant to the Purchase Agreement).

In connection with the transactions described in the Purchase Agreement and as a material inducement for the Buyer to complete such transactions, DataTRAK covenants and agrees to make the services and the products of DataTRAK's electronic data capture business available to the Buyer on royalty, fee and other material terms which are no less favorable than those terms offered to other non-affiliated customers (excluding, however,

arrangements made by DataTRAK with any members of any Consortium described in Section 1(c) of the above mentioned Non-Competition Agreement.

DataTRAK has executed this letter intending to be legally bound.

DATATRAK, INC.

By_____
Name:
Title:

Exhibit 13

## FINANCIAL REVIEW

West Pharmaceutical Services (the Company) applies value-added services to the process of bringing new drug therapies and healthcare products to global markets. West s technologies include the design and manufacture of packaging components for pharmaceutical, healthcare and consumer products (device product development); research and development of drug delivery systems; and contract laboratory services and other services that support the manufacturing, filling and packaging of pharmaceutical, healthcare and consumer products (contract services).

The following is management's discussion and analysis of the Company's operating results for the three years ended December 31, 1998 and its financial position as of year-end 1998. The information should be read in conjunction with the financial statements and accompanying notes appearing elsewhere in this report.

## RESULTS OF OPERATIONS

The Company's 1998 net income was $6.7 million, or $.41 per share. Net income includes a charge of $28.2 million related to in-process research and development associated with the 1998 acquisition of DanBioSyst UK Ltd. (DanBioSyst) and a $2.5 million net restructuring charge to income in the third quarter of 1998 related to staff reductions. In 1997, net income was $44.4 million, or $2.69 per share, and includes a $7.9 million net tax benefit associated mainly with the tax reorganization of the Company s German subsidiaries. The 1996 net income of $16.4 million, or $1.00 per share, reflects a $15 million net charge to income in the first quarter of 1996 related to a restructuring plan. Excluding the in-process research and development charge in 1998, the tax benefit in 1997 and restructuring charges in 1998 and 1996, the Company s 1998 net income was $37.4 million, or $2.28 per share, which compares with 1997 net income of $36.5 million, or $2.21 per share, and 1996 net income of $31.3 million, or $1.91 per share.

During 1996 and 1997, the Company implemented a major restructuring plan. The plan included downsizing or closing manufacturing facilities. Three manufacturing facilities in Argentina, Puerto Rico and Germany were closed and the machinery business was sold. Facilities in Brazil and Pennsylvania were downsized and a development facility in Colorado was closed. An approximate 5% reduction in the workforce was completed. The total restructuring charge was $21.5 million, approximately $7.3 million of which represented severance and benefits. The remaining charge covered the facility closing costs and the reduction to net realizable value of the facilities and equipment made excess by the restructuring actions. Part of an overall strategy to enhance technical capabilities and assure the quality of products, the restructuring plan created focused, more efficient factories and shifted certain production to lower-cost locations. In the third quarter of 1998, a further restructuring charge was recorded related to staff reductions which reduced headcount by 1%.

### Net Sales

Net sales were $449.7 million in 1998, as compared with $452.5 million for 1997. Lower comparable sales in the first half of 1998 were nearly offset by sales growth in the second half of the year, particularly in contract services and in packaging

components for European markets. Reported consolidated sales comparisons were negatively impacted by about $2.6 million due to the stronger U.S. dollar versus most European and Asian currencies.

Sales of manufactured device products for the healthcare and consumer markets decreased 1% (measured at constant exchange rates) in 1998 compared with 1997. Sales declined in all markets with the exception of Europe, where sales increased 9% partially due to the mid-1998 acquisition of Betraine Limited. Sales in domestic markets decreased 6% with lower sales to both healthcare and consumer markets, mainly reflecting lower sales to several key customers. These declines resulted in part from reductions in customers inventory levels, and a combination of lower resin prices and loss of business at three accounts to competitors. The Company is working on new or improved product offerings to regain lost business.

Sales in Asian and South American markets were lower primarily due to the impact on demand of local financial crises. Continued consumer and government pressure to control and even reduce the cost of healthcare delivery is transforming the healthcare markets. Customers have responded by establishing aggressive cost reduction programs and in certain instances reducing inventory levels. The Company s ability to increase prices is becoming more limited and competitive activity is increasing. Part of the Company s continuing strategy to combat this environment is to focus on the needs of its customers with planned introductions of new services and products.

Contract manufacturing and packaging services sales increased by 3% for the full year, but excluding the impact of the lower level of company-supplied materials for 1998 production, sales increased by 8%. Demand in the last half of the year was strong with sales of these services increasing by 16% compared with 1997. The Company is investing in the capability of its contract manufacturing and packaging facilities and is leveraging its sales effort to offer customers the full supply chain capability of its business units.

Revenues attributable to drug delivery research and development totaled $1.5 million in 1998.

Net sales were $452.5 million in 1997, a decrease of $6.3 million, or 1%, compared with net sales of $458.8 million in 1996. Without the effect of the strong U.S. dollar, which reduced reported sales by about $12.9 million, and without the 1996 machinery sales, a business sold in 1996, sales in 1997 were 2% higher compared with 1996.

Contract manufacturing and packaging service sales increased 13% in 1997 compared with 1996, largely as a result of stronger demand and because the Company supplied a larger portion of the materials used in 1997 production.

Sales of manufactured device products were flat in 1997 compared with 1996. Sales in domestic markets increased by 2%. Domestic healthcare market sales growth of about 3% reflects the modest growth rate of the market and a favorable product mix. Domestic consumer market sales decreased 4% compared with 1996. The decline occurred in the fourth quarter, in part due to lower demand for Spout-pak , a fitment for gable-carton juice containers, low demand for certain customers' products and the loss of customers replacement products to other suppliers. Sales in international markets were lower and the product mix was unfavorable.

Gross Profit
---

The consolidated gross margin in 1998 was 30.1% and gross profit was $135.2 million. These results compare with a 29.2% gross margin and gross profit of $132.1 million in 1997.

Margins on contract manufacturing and packaging services sales increased significantly due to sales volumes, price increases, a shift to higher margin, longer-running jobs and improved efficiencies.

Margins on manufactured device product sales were slightly lower than 1997 due to the inclusion of Betraine Limited, a company acquired in 1998. The Company is working to improve the cost structure and product mix at this subsidiary. Excluding Betraine, gross margins for this operating segment increased slightly due to cost savings and efficiency programs. These cost reductions offset the combined negative impact of lower volumes, a less favorable product mix and price competition.

The gross margin of 29.2% in 1997 represented an increase from the 27.5% gross margin in 1996, and gross profit increased from $126.1 million to $132.1 million

Contract services' gross margin doubled in 1997 compared with 1996 due to sales volumes and efficiencies achieved. Margins on manufactured device product sales increased by more than one percentage point due to the combined impact of cost savings initiatives, a more profitable product mix in domestic markets and lower resin raw material costs which are passed through to customers.

Expenses
---

Selling, general and administrative expenses as a percentage of sales were 15.7% in 1998, 15.5% in 1997 and 15.9% in 1996.

Selling, general and administrative expenses totaled $70.5 million in 1998, $70.2 million in 1997 and $72.8 million in 1996. The $.3 million increase in these expenses in 1998 compared with 1997 was primarily the result of expenses associated with acquisitions. These increases more than offset the following favorable factors: lower pension costs due to higher income on U.S. pension plan assets, the impact of the stronger U.S. dollar and lower U.S. employee fringe benefit costs.

The 4% decrease in these expenses in 1997 compared with 1996

was primarily the result of lower pension costs due to higher income on U.S. pension plan assets and the impact of the stronger U.S. dollar. These decreases more than offset the following factors: inflationary cost increases, increased bad debt expense primarily related to the bankruptcy of a domestic customer and higher expenses in Asia/Pacific due to the financial crisis in that market, an increase in estimated expenses associated with environmental remediation activity, and higher spending related to drug delivery system development.

Included in the other income category is interest income totaling $2.7 million in 1998, $2.0 million in 1997 and $1.3 million in 1996, a result of higher cash balances available for investment, due to strong cash flow from operations. Foreign currency gains and losses were not significant in the last three years. In 1998, the Company s subsidiary in Brazil was no longer accounted for as operating in a hyperinflationary economy because the cumulative inflation rate has declined dramatically. Net losses on real estate and investments totaled $.3 million in 1998, $.7 million in 1997, and $.2 million in 1996. Losses on disposition of obsolete equipment were lower in both 1998 and 1997 compared with the prior year.

Interest
---

Interest costs totaled $7.5 million in 1998 compared with $6.0 million in 1997 and $7.3 million in 1996, of which $.3 million in 1998 and $.4 million in 1997 and 1996 were capitalized as part of the cost of capital asset acquisitions.

The average consolidated debt level increased in 1998 after having decreased in 1997. Higher debt levels in 1998 reflect the 1998 acquisitions of DanBioSyst and Betraine and the Company s Dutch Auction self tender for two million shares at $30 per share, completed in the fourth quarter of 1998.

Income Taxes
---

The effective tax rate on consolidated income was 76.1% in 1998, 23.2% in 1997 and 41.8% in 1996. Unusual events have impacted the effective tax rate in each of these years. Excluding the impact of these unusual items would result in comparative tax rates of 37.8% for 1998, 37% for 1997 and 36.6% for 1996.

Pretax earnings for 1998 were reduced by a non-deductible $28.2 million charge for acquired in-process research and development. Excluding this charge, the effective tax rate of 37.8% reflects the higher proportion of pretax earnings generated in non-U.S. subsidiaries with higher tax rates.

Significantly impacting the tax accrual for 1997 were two events which produced a net tax benefit of $7.9 million. The events were: 1) a tax reorganization of the German subsidiaries which both increased the tax basis for the assets of these entities and resulted in tax credit refunds, and 2) repatriation of cash dividends from certain foreign subsidiaries. Excluding this net benefit , the effective tax rate was 37%, which included an increase in the statutory tax rate in France, enacted in 1997.

The low tax benefit on certain components of the 1996 restructuring charge increased the 1996 effective tax rate. Excluding the restructuring charge and the applicable tax benefits, the 1996 effective tax rate would have been 36.6%.

Equity in Affiliates
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The contribution to earnings from a 25% ownership interest in Daikyo Seiko,Ltd. and a 49% ownership interest in three associated companies in Mexico has declined in each of the past three years. Daikyo s contribution to earnings has steadily decreased due to a combination of higher expenses related to introduction of a new product line, Resin CZ vials, lower sales due to reduced government reimbursements of healthcare costs and a three-year weakening of the Japanese yen versus the U.S. dollar. The decrease in earnings contributions from the affiliates in Mexico is also due to declining sales over the three years in part as a result of more aggressive competition. The lower contributions from these affiliates also reflect currency exchange rate losses. In 1997, expenses related to the Company's 30% ownership interest in DanBioSyst also reduced comparisons to 1996.

FINANCIAL POSITION
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The Company believes that its financial position and current capitalization indicate an ability to finance substantial future growth. Cash flow from operations totaled $71.0 million in 1998. Working capital at December 31, 1998, totaled $55.5 million, a ratio of current assets to current liabilities of 1.5 to 1, and includes a cash balance of $31.3 million. Debt to total invested capital (total debt, minority interests and shareholders' equity) was 37.9%; the outstanding debt balance was $141.1 million at December 31, 1998, compared with $89 million at year-end 1997.

Available cash and record cash flow from 1998 operations combined with cash from stock option exercises and borrowings under available credit lines to fund the following:$41.8 million of 1998 capital expenditures, the $34.9 million cash portion of the purchase price for two acquisitions, the $60.4 million cost of repurchasing two million common shares following a Dutch

Auction self tender offer, and $9.4 million of cash dividends to shareholders ($.61 per share).

The Company has two revolving credit facilities which provide for borrowings up to $70 million for a term of 364 days, renewable at the lender's option, and borrowings up to $55 million through August 2000. At year-end 1998, the Company had $35 million and $2.8 million available under the short-term and long-term facilities, respectively. The Company is in negotiations with a group of insurance companies for a substantial long-term debt facility. Agreement is expected to be reached in the second quarter 1999.

## 1999 REQUIREMENTS

Capital Expenditures: Cash requirements for capital projects in 1999 are estimated at $50 million. These projects focus on new business opportunities as well as cost reduction and quality improvements through technology upgrades and product and process standardization. New device product tooling and equipment and facilities to support the development of drug delivery systems are planned. Acquisition and implementation of new information management systems to address the year 2000 issue continues , as does maintenance and improvements to the existing production capacity.

Year 2000 Costs: The year 2000 issue relates to computer programs which use two digits, rather than four, to specify the year. Such programs will recognize a date using "00" as the year 1900 rather than the year 2000, resulting in potential system failure or miscalculations.

The Company has developed a comprehensive, corporate-wide project plan designed to address the year 2000 issue. The Company's project implementation team includes representatives from staff functions and each of the Company's locations. The plan calls for the Company to have completed required modifications to address the year 2000 issue by June 30, 1999. The progress of these efforts is closely monitored by senior management and periodic reports are provided to the Board of Directors.

The Company plan is based on a risk assessment, which identified and prioritized critical business processes and plant locations, and an inventory of all computer hardware and software and computer-controlled manufacturing and facility equipment. Based on these results, remediation or replacement plans were developed. The project began in April 1997.

The Company has made significant progress in remediating or replacing critical information systems which support business functions. Due to multiple geographical locations, discrete computer systems exist in the U.S., Europe, South America and Asia regions. The U.S. and European-based manufacturing (excluding West's contract services operations in Lakewood), financial reporting and payroll application systems have been completed, and other systems, including West Lakewood's manufacturing systems, are at various stages of completion, but are on schedule to be completed during the first half of 1999. Desktop computer hardware and software inventory and assessment are complete and required remedial activity is scheduled to be essentially completed by June 30, 1999.

Remediation or replacement of software-dependent research and development, manufacturing process and facility management systems and equipment is progressing well at all locations. These activities, a combination of testing, replacement and certification from equipment and system vendors, are expected to be completed by June 30, 1999.

The Company has received year 2000 compliance certifications from all of its major raw materials suppliers and major service providers indicating that delivery of required supplies and

services will continue uninterrupted. The Company recently initiated a program of on-site audits of key suppliers.

Although management is satisfied with the progress of the plan, the Company is in the process of preparing a contingency plan which will be further detailed in the coming months. The Company's year 2000 project schedule is expected to be substantially completed by June 30, 1999. The Company believes adequate time will be available in the last half of 1999 to address deficiencies without a material impact on the critical business functions.

Internal and external resources are being used to execute the year 2000 plan. The pretax costs incurred to date for this effort were approximately $3.7 million and $1.0 million in 1998 and 1997,respectively. Purchases and implementation costs for compliant software which also improves functionality is being capitalized. As a result, $3.3 million and $1.0 million have been capitalized in 1998 and 1997, respectively. The Company does not separately track the incidental costs and time that its own internal employees spend on the year 2000 project. Such costs principally relate to salary, employee benefits and facility costs. The Company expects costs of approximately $5.0 million will be incurred in 1999 to substantially complete the effort, much of which will represent new equipment and computer hardware and software, which will be capitalized.

The cost of the year 2000 project and the date on which the Company believes it will substantially complete modifications are based on management's best estimates. The estimates are based on numerous assumptions of future events, including the continued availability of certain resources and other factors. Because none of these estimates can be guaranteed, actual time and cost to complete modifications could differ materially from those anticipated. Specific factors that might cause such differences include, but are not limited to, the reliability and timely receipt of vendor certifications, the appropriateness and effectiveness of testing and validation methods, the availability and cost of trained personnel and the timely availability of replacement computer hardware, software and equipment and similar uncertainties.

Foreign exchange exposure: In accordance with the Company's foreign exchange management policy, the adverse consequences resulting from foreign currency exposure are mitigated by engaging in certain hedging activities. Foreign exchange forward contracts are used to minimize exposure related to foreign currency transactions and commitments for raw material purchases. The Company has entered into interest rate swap agreements to minimize risk to interest rate increases. The Note "Financial Instruments" to the Consolidated Financial Statements explains the impact of such hedges and interest rate swaps on the Company's results of operations and financial position.

Remedial activities: Cash requirements for remedial activity related to environmental cleanup are expected to approximate 1998 expenditures of $.4 million. The Company has been indemnified by other financially responsible parties against future government claims relating to groundwater contamination at a Puerto Rico site, and the Company does not anticipate any remedial expenses

with respect to this site.

In 1999, management believes cash generated from operations and option exercises, available credit facilities and the Company's current capitalization will provide sufficient flexibility to meet future cash flow requirements, pursue its stated strategy and implement its recently announced stock repurchase program for up to one million shares.

CONSOLIDATED STATEMENTS OF INCOME
WEST PHARMACEUTICAL SERVICES, INC.
AND SUBSIDIARIES FOR THE YEARS
ENDED DECEMBER 31, 1998, 1997 AND 1996
(in thousands, except per share data)

| | 1998 | | 1997 | | 1996 | |
|---|---|---|---|---|---|---|
| Net sales | $449,700 | 100% | $452,500 | 100% | $458,800 | 100% |
| Cost of goods sold | 314,500 | 70 | 320,400 | 71 | 332,700 | 73 |
| Gross profit | 135,200 | 30 | 132,100 | 29 | 126,100 | 27 |
| Selling, general and administrative expenses | 70,500 | 16 | 70,200 | 16 | 72,800 | 16 |
| Restructuring charge | 4,000 | 1 | - | - | 21,500 | 5 |
| Acquired research and development | 28,200 | 6 | - | - | - | - |
| Other income, net | (2,500) | (1) | (1,100) | (1) | (900) | (1) |
| Operating profit | 35,000 | 8 | 63,000 | 14 | 32,700 | 7 |
| Interest expense | 7,200 | 2 | 5,600 | 1 | 6,900 | 1 |
| Income before income taxes and minority interests | 27,800 | 6 | 57,400 | 13 | 25,800 | 6 |
| Provision for income taxes | 21,200 | 5 | 13,300 | 3 | 10,800 | 2 |
| Minority interests | 100 | - | 200 | - | 100 | - |
| Income from consolidated operations | 6,500 | 1% | 43,900 | 10% | 14,900 | 4% |
| Equity in net income of affiliated companies | 200 | --- | 500 | --- | 1,500 | |
| Net income | $ 6,700 | | $ 44,400 | | $ 16,400 | |
| Net income per share: | | | | | | |
| Basic | $ .41 | | $ 2.69 | | $ 1.00 | |
| Assuming Dilution | $ .40 | | $ 2.68 | | $ .99 | |
| Average common shares outstanding | 16,435 | | 16,475 | | 16,418 | |
| Average shares assuming dilution | 16,504 | | 16,572 | | 16,500 | |

The accompanying notes are an integral part of the financial statements.



CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
WEST PHARMACEUTICAL SERVICES, INC. AND
SUBSIDIARIES FOR THE YEARS ENDED DECEMBER 31, 1998, 1997 AND 1996
(in thousands)

| | Foreign currency items | Unrealized gains (losses) on securities | Total other comprehensive income | Net income | Total comprehensive income |
|---|---|---|---|---|---|
| Cumulative Balance, January 1, 1996 | $20,100 | $ 300 | $20,400 | | |
| Comprehensive income 1996 | (3,800) | 100 | (3,700) | $16,400 | $12,700 |
| Balance, December 31, 1996 | 16,300 | 400 | 16,700 | | |
| Comprehensive income 1997 | (12,900) | (300) | (13,200) | $44,400 | $31,200 |
| Balance, | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| December 31, 1997 | 3,400 | 100 | 3,500 | | |
| Comprehensive income 1998 | 4,100 | (400) | 3,700 | $ 6,700 | $10,400 |
| Balance, December 31, 1998 | $7,500 | $(300) | $7,200 | | |

The accompanying notes are an integral part of the financial statements.



CONSOLIDATED BALANCE SHEETS
WEST PHARMACEUTICAL SERVICES, INC. AND SUBSIDIARIES
AT DECEMBER 31, 1998 AND 1997

(in thousands)

| | 1998 | 1997 |
|---|---|---|
| ASSETS | | |
| Current assets: | | |
| Cash, including equivalents (1998--$13,700; 1997--$41,700) | $ 31,300 | $ 52,300 |
| Accounts receivable, less allowance (1998--$1,900; 1997--$3,000) | 64,400 | 60,400 |
| Inventories | 43,500 | 38,300 |
| Current deferred income tax benefit | 9,700 | 9,400 |
| Other current assets | 10,800 | 10,300 |
| Total current assets | 159,700 | 170,700 |
| Property, plant and equipment | 472,200 | 428,600 |
| Less accumulated depreciation and amortization | 251,900 | 226,400 |
| | 220,300 | 202,200 |
| Investments in affiliated companies | 15,700 | 22,700 |
| Goodwill | 61,200 | 51,600 |
| Deferred charges and other assets | 48,700 | 30,700 |
| | $505,600 | $477,900 |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Current portion of long-term debt | $ 800 | $ 700 |
| Notes payable | 35,300 | 900 |
| Accounts payable | 20,800 | 18,600 |
| Accrued expenses: | | |
| Salaries, wages and benefits | 17,100 | 13,400 |
| Income taxes payable | 8,500 | 5,400 |
| Other | 21,700 | 19,000 |
| Total current liabilities | 104,200 | 58,000 |
| Long-term debt, excluding current portion | 105,000 | 87,400 |



| | | |
|---|---|---|
| Deferred income taxes | 39,100 | 30,100 |
| Other long-term liabilities | 26,600 | 24,300 |
| Minority interests | 600 | 400 |
| Shareholders' equity: | | |

| | | |
|---|---|---|
| Preferred stock, shares authorized: 3,000; shares issued and outstanding: 1998-0; 1997-0 | | |
| Common stock, par value $.25 per share; shares authorized: 50,000; shares issued: 1998--17,165; 1997--16,845; shares outstanding: 1998--15,026; 1997--16,568 | 4,300 | 4,200 |
| Capital in excess of par value | 32,900 | 24,000 |
| Retained earnings | 249,300 | 252,500 |
| Accumulated other comprehensive income | 7,200 | 3,500 |
| | 293,700 | 284,200 |
| Less treasury stock (1998--2,139 shares; 1997--277 shares) | 63,600 | 6,500 |
| Total shareholders' equity | 230,100 | 277,700 |
| | $505,600 | $477,900 |

The accompanying notes are an integral part of the financial statements.



CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
WEST PHARMACEUTICAL SERVICES, INC. AND
SUBSIDIARIES FOR THE YEARS ENDED DECEMBER 31, 1998, 1997 AND 1996
(in thousands, except per share data)

| | Common stock | Capital in excess of par value | Retained earnings | Other comprehensive income | Treasury stock | Total |
|---|---|---|---|---|---|---|
| Balance, January 1, 1996 | $4,200 | $23,500 | $210,200 | $20,400 | $(4,200) | $254,100 |
| Net income | | | 16,400 | | | 16,400 |
| Shares issued under stock plans | | 400 | | | 3,200 | 3,600 |
| Shares issued for acquisition | | 100 | | | 400 | 500 |
| Shares repurchased | | | | | (10,000) | (10,000) |
| Cash dividends declared ($.54 per share) | | | (8,900) | | | (8,900) |
| Changes-other comprehensive income | | | | (3,700) | | (3,700) |
| Balance, December 31, 1996 | 4,200 | 24,000 | 217,700 | 16,700 | (10,600) | 252,000 |
| Net income | | | 44,400 | | | 44,400 |
| Shares issued under stock plans | | | | | 4,100 | 4,100 |
| Cash dividends declared ($.58 per share) | | | (9,600) | | | (9,600) |
| Changes-other comprehensive income | | | | (13,200) | | (13,200) |
| Balance, December 31, 1997 | 4,200 | 24,000 | 252,500 | 3,500 | (6,500) | 277,700 |
| Net income | | | 6,700 | | | 6,700 |
| Shares issued under stock plans | | 300 | | | 3,300 | 3,600 |
| Shares issued for acquisition | 100 | 8,600 | | | | 8,700 |
| Shares repurchased | | | | | (60,400) | (60,400) |
| Cash dividends declared ($.62 per share) | | | (9,900) | | | (9,900) |
| Changes-other comprehensive income | | | | 3,700 | | 3,700 |
| Balance, December 31, 1998 | $4,300 | $32,900 | $249,300 | $7,200 | $(63,600) | $230,100 |

The accompanying notes are an integral part of the financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS
WEST PHARMACEUTICAL SERVICES, INC. AND SUBSIDIARIES
FOR THE YEARS ENDED DECEMBER 31, 1998, 1997 AND 1996

| (in thousands) | 1998 | 1997 | 1996 |
|---|---|---|---|
| Cash flows from operating activities: | | | |
| Net income | $6,700 | $44,400 | $16,400 |
| Adjustments to reconcile net income to net cash from operating activities: | | | |
| Depreciation and amortization | 32,300 | 31,900 | 30,700 |
| Acquired research and development | 28,200 | - | - |
| Restructuring charge | 4,000 | - | 21,500 |
| Loss on sales of real estate and invest | 300 | 700 | 200 |
| Deferred income taxes | 5,900 | (7,500) | (5,700) |
| Pension and other retirement plans | (6,000) | (4,100) | (600) |
| Equity in undistributed earnings of affiliated companies, net | (100) | (100) | (1,100) |
| Decrease (increase) in accounts receiva | (700) | 1,000 | (3,400) |
| Decrease (increase) in inventories | (2,400) | 2,700 | (2,700) |
| Decrease (increase) in other current as | 800 | 400 | (300) |
| (Decrease) increase in other current lia | 500 | (1,300) | 5,900 |
| Other operating items | 1,500 | (400) | 2,500 |
| Net cash provided by operating activities | 71,000 | 67,700 | 63,400 |
| Cash flows from investing activities: | | | |
| Property, plant and equipment acquired | (41,800) | (34,400) | (31,700) |
| Proceeds from sales of assets | 1,200 | 1,700 | 7,200 |
| Payments for acquisitions, net of cash | (34,900) | - | (1,600) |
| Customer advances, net of repayments | 1,700 | (300) | 1,600 |
| Net cash used in investing activities | (73,800) | (33,000) | (24,500) |
| Cash flows from financing activities: | | | |
| Borrowings under revolving credit agreements, net | 65,000 | 200 | 1,500 |
| Proceeds from other long-te | 1,500 | - | - |
| Repayment of long-term debt | (19,100) | (1,200) | (9,000) |
| Other notes payable, net | 800 | (700) | (6,200) |



| | | | |
|---|---|---|---|
| Issuance of common stock, net | 2,600 | 4,000 | 3,500 |
| Dividend payments | (9,400) | (9,400) | (8,700) |
| Purchase of treasury stock | (60,400) | - | (10,000) |
| Net cash used in financing activities | (19,000) | (7,100) | (28,900) |
| Effect of exchange rates on cash | 800 | (2,600) | (100) |
| Net (decrease) increase in cash and cash equivalents | (21,000) | 25,000 | 9,900 |
| Cash and cash equivalents at beginning of year | 52,300 | 27,300 | 17,400 |
| Cash and cash equivalents at end of year | $31,300 | $52,300 | $27,300 |

| | | | |
|---|---|---|---|
| Supplemental cash flow information: | | | |
| Interest paid, net of amounts capitalized | $ 5,100 | $ 5,700 | $ 6,200 |
| Income taxes paid | $14,700 | $20,000 | $14,300 |

The accompanying notes are an integral part of the financial statements.



NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share data)

Summary of Significant Accounting Policies

Basis of Presentation: The financial statements are prepared in conformity with generally accepted accounting principles in the United States. These principles require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and revenue and expenses and the disclosure of contingencies in the financial statements. Actual amounts realized may differ from these estimates.

Principles of Consolidation: The consolidated financial statements include the accounts of the Company and all majority-owned subsidiaries. Material intercompany transactions and accounts are eliminated in consolidation. Investments in affiliated companies in which ownership exceeds 20% are accounted for on the equity method.

Statement of Cash Flows: Cash flows from operating activities are reported under the indirect method; cash equivalents include time deposits, certificates of deposit and all highly liquid debt instruments with original maturities of three months or less.

Inventories: Inventories are valued at the lower of cost or market. The cost of inventories located in the United States is determined on the last-in, first-out (LIFO) method, except for the cost of inventories of West Pharmaceutical Services Lakewood, Inc. (West Lakewood), a wholly owned subsidiary, which is determined on the first-in, first-out (FIFO) method. The cost of inventories located outside the United States is determined principally on the average cost method.

Foreign Currency Translation: Foreign currency transaction gains and losses and translation gains and losses of subsidiaries operating in high-inflation economies are recognized in the determination of net income. Foreign currency translation adjustments of other subsidiaries and affiliates operating outside the United States are accumulated in other comprehensive income, a separate component of shareholders' equity.

Financial Instruments: The Company uses interest rate swaps and forward exchange contracts to minimize the economic exposure related to fluctuating interest and foreign exchange rates. Amounts to be paid or received under interest rate swaps are accrued as interest expense, and presented in the financial statements on a net basis. Gains and losses on hedges of existing assets and liabilities are recognized monthly and offset gains and losses on the underlying transaction. Gains and losses related to firm commitments, primarily raw material purchases including local needs in foreign subsidiaries, are deferred and recognized as part of the underlying transaction.

In 1998, Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities", was issued. This standard, which will be adopted by the Company in the year 2000, requires derivatives to be recorded on the balance sheet as

assets or liabilities, measured at fair value. Gains or losses resulting from changes in the value of those derivatives would be accounted for depending on the use of the derivative and whether it qualifies for hedge accounting. The impact of adopting this standard cannot be determined at this time.

Marketable Securities: Investments in debt and marketable securities are classified under one of three categories: held-to-maturity, available-for-sale and trading, based on management's intentions. Investments in marketable securities are stated at fair market value. Unrealized gains and losses on trading securities are included in income. Unrealized gains and losses on securities available-for-sale are accumulated in other comprehensive income, a separate component of shareholders' equity. Cost of marketable securities is determined on the moving average method.

Revenue Recognition: Sales are recorded at the time title passes, which generally occurs when the goods are shipped. Revenue associated with drug delivery systems development is recognized when earned in accordance with the terms of the customer agreement.

Property, Plant And Equipment: Property, plant and equipment are carried at cost. Maintenance and minor repairs and renewals are charged to expense as incurred. Upon sale or retirement of depreciable assets, costs and related depreciation are eliminated, and gains or losses are recognized in the determination of net income. The Company continually evaluates the appropriateness of the remaining estimated useful life and the carrying value of its operating assets, goodwill and other intangible assets. Carrying values in excess of undiscounted estimates of related cash flows are expensed when such determination is made.

Depreciation And Amortization: For financial reporting purposes, depreciation is computed principally on the straight-line method over the estimated useful lives of the assets, or the remaining term of the lease, if shorter. For income tax purposes, depreciation is computed using accelerated methods. Goodwill is being amortized on the straight-line method over periods ranging from 13 to 40 years.

Research and Development: Research, development and engineering expenditures for the creation and application of new or improved products and processes, and drug delivery systems, the total of which amounted to $14,500 in 1998, $12,000 in 1997 and $11,200 in 1996, are expensed as incurred, net of customer reimbursements.

Environmental Remediation and Compliance Costs: Environmental remediation costs are accrued when such costs are probable and reasonable estimates are determinable. Cost estimates are not discounted and include investigation, cleanup and monitoring activities; such estimates are adjusted, if necessary, based on additional findings. In general, environmental compliance costs are expensed. Environmental compliance costs at current operating sites are capitalized if they increase the value of the property and/or prevent environmental hazards from occurring.



Income Taxes: Deferred income taxes are recognized by applying enacted statutory tax rates, applicable to future years, to temporary differences between the tax bases and financial statement carrying values of the Company's assets and liabilities. Valuation allowances are recorded to reduce deferred tax assets to amounts that are more likely than not to be realized. United States income taxes and withholding taxes are accrued on the portion of earnings of international subsidiaries and affiliates (which qualify as joint ventures) intended to be remitted to the parent company.

Stock-Based Compensation: The Company accounts for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations. Accordingly, compensation cost for stock options is measured as the excess, if any, of the quoted market price of the Company s stock at the date of the grant over the amount an employee must pay to acquire the stock.

Net Income Per Share: Basic net income per share is computed by dividing net income by the weighted-average number of shares of common stock outstanding during each period. Net income per share, assuming dilution, considers the potential issuance of common shares under the Company s stock option and award plans, based on the treasury stock method. The treasury stock method assumes use of exercise proceeds to repurchase common stock at the average fair market value in the period.

Other Income (Expense)

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Interest income | $ 2,700 | $ 2,000 | $1,300 |
| Foreign exchange gains (losses) | 200 | - | (100) |
| Loss on sales of real estate and investments | (300) | (700) | (200) |
| Other | (100) | (200) | (100) |
| | $ 2,500 | $ 1,100 | $ 900 |

Restructuring Charges

On September 8, 1998, the Company recorded a pre-tax charge of $4,000. The charge is related to employee reductions associated with identified manufacturing and other operating efficiencies. The charge includes severance and benefits for 90 employees including manufacturing and staff positions and other related charges. At December 31, 1998, the total payout of severance and benefits to date associated with this charge was $1,700.

On March 29, 1996, the Company approved a major restructuring



plan that included the closing or substantial downsizing of six manufacturing facilities, disposition of related excess equipment and properties and an approximate 5% reduction of the workforce. The total estimated charge related to these actions was $15,000, net of $6,500 of income tax benefits, which was accrued in the first quarter of 1996. Approximately one-third of the net charge related to reduction in personnel, including manufacturing and staff positions, and covered severance pay and other benefits to be provided to terminated employees. At December 31, 1998, all employees affected by the plan have been terminated and total payout of severance and benefits to date is $6,900; the remaining liability for these costs is $400. The remaining net charge covered facility closing costs and the reduction of the carrying value of equipment and facilities made excess by the restructuring plan to net realizable value. Facilities in Puerto Rico, Colorado, Germany and Argentina were closed; three of four buildings idled have been sold to date. Facilities in Brazil and Pennsylvania were downsized and the machinery manufacturing operations were sold.

Restructuring activities, except for the sale of one building and certain excess equipment and payout of remaining benefit costs for terminated employees, have been completed.

Acquisitions and Investments

On July 1, 1998 the Company acquired Betraine Limited for BPS 7,200 ($11,800 at July 1, 1998). Betraine manufactures precision injection molded plastic components for the healthcare and consumer products industries. The acquisition was accounted for as a purchase and Betraine operating results were consolidated beginning July 1, 1998. The acquisition was financed with existing cash. The excess of the purchase price over the net assets acquired will be amortized on a straight line basis over 20 years.

On March 31, 1998, the Company acquired for BPS 20,000 ($33,500 at March 31, 1998) the remaining 70% interest in DanBioSyst UK Ltd. (DBS), making DBS a wholly-owned subsidiary. DBS is engaged in drug delivery system research and development. This transaction was accounted for by the purchase method and was financed with cash of $9,400, 320,406 shares of restricted common stock valued at $8,700, and short-term notes of $15,400. Operating results of DBS were consolidated beginning on April 1, 1998. The allocation of the purchase price, determined by an independent appraiser using the income approach, follows:

| | |
|---|---|
| Current assets | $ 1,300 |
| Equipment and leasehold improvements | 800 |
| In-process research and development | 28,200 |
| Patents | 2,800 |
| Other intangibles | 400 |

In-process research and development was written off at the date



of acquisition. This value relates to various drug delivery platforms which DBS has in different stages of the development process. The appraisal was based on licensing of such delivery systems with significant revenues generated beginning in 2003. A discount rate of 32% was used.

The initial 30% interest in DBS was acquired in 10% increments, the last of these purchases occurring in 1996. The cost of the 1996 acquisition was $2,100, paid $1,600 in cash and $500 in the Company's common stock.

Income Taxes

Income before income taxes and minority interests was derived as follows:

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Domestic operations | $ 8,600 | $39,500 | $11,500 |
| International operations | 19,200 | 17,900 | 14,300 |
| | $27,800 | $57,400 | $25,800 |

The related provision for income taxes consists of:

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Currently payable: | | | |
| Federal | $ 8,800 | $16,000 | $ 8,000 |
| State | 900 | 600 | 700 |
| International | 5,600 | 4,200 | 7,800 |
| | 15,300 | 20,800 | 16,500 |
| Deferred: | | | |
| Federal | 4,200 | 1,800 | (3,600) |
| State | - | - | (200) |
| International | 1,700 | (9,300) | (1,900) |
| | 5,900 | (7,500) | (5,700) |
| | $21,200 | $13,300 | $10,800 |

A reconciliation of the United States statutory corporate tax rate to the Company's effective consolidated tax rate on income before income taxes and minority interests is as follows:

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Statutory corporate tax rate | 35.0% | 35.0% | 35.0% |



| | | | |
|---|---|---|---|
| Tax on international operations in excess of United States tax rate | 1.2 | 4.7 | 2.4 |
| German tax reorganization benefit | - | (21.7) | - |
| Acquired in-process research and development | 35.5 | - | - |
| United States tax on repatriated international earnings | .8 | 4.3 | 1.0 |
| State income taxes, net of Federal tax benefit | 2.3 | .7 | 1.8 |
| Other | 1.3 | .2 | 1.6 |
| Effective tax rate | 76.1% | 23.2% | 41.8% |

In the third quarter of 1997, the Company completed a tax reorganization of certain German subsidiaries. The benefit of this reorganization was reduced in 1997's fourth quarter due to a tax law change and completion of a tax audit.

The net current and noncurrent components of deferred income taxes recognized in the balance sheet at December 31 are as follows:

| | 1998 | 1997 |
|---|---|---|
| Net current assets | $ 7,800 | $ 9,000 |
| Net noncurrent liabilities | $27,900 | $19,500 |

The following is a summary of the significant components of the

Company's deferred tax assets and liabilities as of December 31:

| | 1998 | 1997 |
|---|---|---|
| Deferred tax assets: | | |
| Loss on asset dispositions and plant closings | $ 2,400 | $ 2,500 |
| Severance and deferred compensation | 9,900 | 9,200 |
| German tax reorganization | 7,800 | 8,300 |
| Net operating loss carryovers | 1,100 | 2,300 |
| Foreign tax credit carryovers | 800 | 900 |
| Restructuring charge | 1,400 | 1,200 |
| Other | 4,500 | 4,000 |
| Valuation allowance | (1,700) | (2,500) |
| Total | $26,200 | $25,900 |



| | 1998 | 1997 |
|---|---|---|
| Deferred tax liabilities: | | |
| Accelerated depreciation | $32,200 | $26,900 |
| Severance and deferred compensation | 7,600 | 4,300 |
| Other | 6,500 | 5,200 |
| Total | $46,300 | $36,400 |

At December 31, 1998, subsidiaries' had operating tax loss carryovers of $20,000, which will be available to apply against the future taxable income of such subsidiaries. The carryover periods expire beginning with $1,500 in 1999 and continue through 2001.

In 1997, the Company repatriated $12,000 of undistributed earnings of international subsidiaries and $2,400 of tax was recorded. At December 31, 1998, undistributed earnings of international subsidiaries, on which deferred income taxes have not been provided, amounted to $73,800. It is the Company s intention to reinvest these undistributed earnings of foreign subsidiaries, and it is not practicable to determine the amount of income or withholding tax that would be payable upon the remittance of those earnings. Such earnings would become taxable upon the sale or liquidation of foreign subsidiaries or upon the remittance of dividends. Tax credits that would become available upon distribution of such earnings could reduce income taxes then payable at the United States statutory rate. As of December 31, 1998, the Company had available foreign tax credit carryovers of approximately $800 expiring in 1999 through 2003.

Net Income Per Share

The following table reconciles shares used in basic income per share to the shares used in income per share assuming dilution. There is no adjustment to the net income of the Company in the calculation of net income per share assuming dilution.

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Net Income | $ 6,700 | $44,400 | $16,400 |
| Basic average common | | | |

| | | | |
|---|---|---|---|
| shares outstanding | 16,435 | 16,475 | 16,418 |
| Assumed stock options exercised and awards vested | 69 | 97 | 82 |
| Average common shares assuming dilution | 16,504 | 16,572 | 16,500 |

Comprehensive Income

In 1998, the Company adopted Financial Accounting Standards No.



130, "Reporting Comprehensive Income," requiring the reporting and display of comprehensive income. Comprehensive income consists of reported net income and other comprehensive income which reflects revenue, expenses and gains and losses which generally accepted accounting principles exclude from net income. For the Company the items excluded from current net income are unrealized gains or losses on available-for-sale securities and cumulative foreign currency adjustments. Comprehensive income and the cumulative balance of each item of other comprehensive income is displayed in the accompanying Consolidated Statements of Comprehensive Income.

Inventories

| | 1998 | 1997 |
|---|---|---|
| Finished goods | $15,700 | $15,800 |
| Work in process | 13,700 | 8,100 |
| Raw materials | 14,100 | 14,400 |
| | $43,500 | $38,300 |

Included above are inventories located in the United States that are valued on the LIFO basis, amounting to $10,200 and $12,600 at December 31, 1998 and 1997, respectively, which are approximately $7,200 and $7,600, respectively, lower than replacement value.

Property, Plant and Equipment

A summary of property, plant and equipment at December 31 is presented in the following table:

| | Years of expected useful life | 1998 | 1997 |
|---|---|---|---|
| Land | | $ 3,400 | $ 3,500 |
| Buildings and improvements | 7-50 | 104,200 | 97,000 |
| Machinery and equipment | 3-20 | 291,100 | 261,800 |
| Molds and dies | 4-7 | 55,600 | 52,600 |
| Construction in progress | | 17,900 | 13,700 |
| | | $472,200 | $428,600 |

Affiliated Companies

At December 31, 1998, the following affiliated companies were



accounted for under the equity method:

| | Location | Fiscal year end | Ownership interest |
|---|---|---|---|
| The West Company de Mexico S.A. | Mexico | Dec. 31 | 49% |
| Aluplast S.A. de C.V. | Mexico | Dec. 31 | 49% |
| Pharma-Tap S.A. de C.V. | Mexico | Dec. 31 | 49% |
| Daikyo Seiko, Ltd. | Japan | Oct. 31 | 25% |

A summary of the financial information for these companies is presented below:

| | 1998 | 1997 |
|---|---|---|
| Balance Sheets: | | |
| Current assets | $ 83,400 | $ 78,500 |
| Noncurrent assets | 99,600 | 91,700 |
| Total assets | $183,000 | $170,200 |
| Current liabilities | $ 45,000 | $ 46,500 |
| Noncurrent liabilities | 79,800 | 66,500 |
| Owners' equity | 58,200 | 57,200 |
| Total liabilities and owners' equity | $183,000 | $170,200 |

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Income Statements: | | | |
| Net sales | $69,500 | $77,200 | $80,800 |
| Gross profit | 14,500 | 18,700 | 25,500 |
| Net income | 1,000 | 2,900 | 5,900 |

Unremitted income of affiliated companies included in consolidated retained earnings amounted to $11,100, $11,100 and $11,000 at December 31, 1998, 1997 and 1996, respectively. Dividends received from affiliated companies were $200 in 1998, $400 in 1997 and $400 in 1996.

The Company's equity in unrealized gains and losses of Daikyo Seiko, Ltd.'s investment in securities available for sale included in other comprehensive income, a separate component of shareholders' equity, was $(300), $100 and $400 at December 31, 1998, 1997 and 1996, respectively. The 1998 loss is net of

income tax benefit of $300.

Debt

Short-Term: Notes payable in the amounts of $35,300 and $900 at December 31, 1998 and 1997, respectively, are payable within one year and bear interest at a weighted-average interest rate of 6% and 4%, respectively. At December 31, 1998, short-term debt of $2,800 (under a revolving credit line) was classified as long-term because of the Company's intent to renew the borrowings using an available long-term credit facility.

Long-term:

| At December 31, | 1998 | 1997 |
|---|---|---|
| Unsecured: | | |
| Revolving credit facility, due 2000 (5.51%) | $55,000 | $22,100 |
| Tax-exempt industrial revenue bonds, due 2005 (4.2% to 5.95%) (a) | 11,100 | 11,100 |
| Subordinated debentures, due 2007 (6.5%) | 3,300 | 3,200 |
| Other notes, due 1999 to 2006 (3.5% to 8.17%) | 29,800 | 42,400 |
| Collateralized: | | |
| Mortgage notes, due 1999 to 2016 (6.8% to 6.94%) (b) | 6,600 | 9,300 |
| Total long-term debt | 105,800 | 88,100 |
| Less current portion | 800 | 700 |
| | $ 105,000 | $ 87,400 |

(a) The proceeds of industrial revenue bonds that were not required for the respective construction projects have been invested by the Company. Use of these excess funds and earnings thereon is restricted to servicing the debt. The aggregate of unexpended proceeds and earnings thereon of $1,400 is reflected as a reduction of the principal outstanding on the bonds.
(b) Real estate, machinery and equipment with a carrying value of $12,100 at December 31, 1998, are pledged as collateral.

The Company's revolving credit agreement provides for borrowings up to $70,000 and $55,000 with a term of 364 days and five years through August 2000, respectively, renewable at the lenders' option. Interest is charged at a floating rate based on LIBOR, and a commitment fee ranging up to 3/20% per annum is payable on the facility.

At December 31, 1998, $4,300 at par value of West Lakewood's subordinated debentures were outstanding. The subordinated debentures are reflected in the balance sheet net of discount, which is being amortized through the maturity date of the subordinated debentures, March 1, 2007. The unamortized discount totaled $1,000 and $1,100 at December 31, 1998 and 1997,



respectively. The holders have the right to convert such subordinated debentures into cash for an amount approximating 50% of the par value of the subordinated debentures converted. Interest is payable semiannually.

Long-term debt maturing in the years following 1999 is: $67,300 in 2000, $800 in 2001, $3,200 in 2002 and $12,400 in 2003.

Certain of the financing agreements, among other things, require the maintenance of certain working capital, interest coverage and

debt-to-capitalization ratios and tangible net worth; restrict the sale of assets; and limit the payment of dividends.

Interest costs incurred during 1998, 1997 and 1996 were $7,500, $6,000 and $7,300, respectively, of which $300, $400 and $400, respectively, were capitalized as part of the cost of acquiring certain assets.

At December 31, 1998, the Company has three interest rate swap contracts outstanding, with notional value of $3,000 each, to fix the interest rates at 6.51%, 6.54% and 6.775% through August 2001. Under the terms of these agreements, the Company makes periodic interest payments based on these fixed rates of interest on the notional principal amounts to a counterparty that makes payments based on a market interest rate. The net interest expense recognized in connection with these agreements was less than $100 in the past three years.

Financial Instruments

The following disclosure reflects the estimated fair value of financial instruments of the Company as of December 31.

| | Carrying value | | Estimated fair value | |
|---|---|---|---|---|
| | 1998 | 1997 | 1998 | 1997 |
| Cash and cash equivalents | $31,300 | $52,300 | $31,300 | $52,300 |
| Short-and long-term debt | 141,100 | 89,000 | 135,000 | 88,400 |
| Interest rate swaps(a) | - | - | - | - |
| Forward exchange contracts(a) | | - | | - |

(a) The estimated fair value of the interest rate swaps was less than $100 at December 31, 1998 and 1997. The estimated fair value of forward exchange contracts was less than $100 at December 31, 1997. There were no forward exchange contracts in effect at December 31, 1998.

Methods used to estimate the fair market values of the above listed financial instruments are as follows: cash and cash equivalents due to their short maturity are estimated at carrying values that approximate market; debt is estimated based on current market quotes for instruments of similar maturity; interest rate swaps (see preceding Note" Debt") and forward



exchange contracts are valued at published market prices, market prices of comparable instruments or quotes.

Notional amounts upon which current interest rate swap contracts are based do not represent amounts exchanged and are not a measure of the Company s exposure. Failure by the contract counterparty to make interest payments under an interest swap contract would result in an accounting loss to the Company only if interest rates exceeded the fixed rate to be paid by the Company. The accounting loss corresponds to the cost to replace the swap contract.

Benefit Plans

The Company and certain domestic and international subsidiaries sponsor defined benefit pension plans. In addition, the Company provides minimal life insurance benefits for certain United States retirees and pays a portion of healthcare (medical and dental) costs for retired United States salaried employees and their dependents. Benefits for participants are coordinated with

medicare and the plan mandates medicare risk (HMO) coverage wherever possible and caps the total contribution for non-HMO coverage.

Total (income) expense for 1998, 1997 and 1996 of these plans includes the following:

| | Pension benefits | | | Other retirement benefits | | |
|---|---|---|---|---|---|---|
| | 1998 | 1997 | 1996 | 1998 | 1997 | 1996 |
| Service cost | $ 3,600 | $ 3,600 | $ 3,900 | $500 | $400 | $500 |
| Interest cost | 8,500 | 8,000 | 7,700 | 500 | 500 | 600 |
| Expected return on assets | (15,400) | (13,400) | (11,300) | - | - | - |
| Amortization of unrecognized transition asset | (800) | (800) | (800) | - | - | - |
| Amortization of prior service cost | 400 | 200 | 100 | (1,500) | (1,400) | (1,200) |
| Recognized actuarial gains | (1,800) | (1,200) | (100) | - | - | - |
| Pension (income) | $(5,500) | $(3,600) | $(500) | $(500) | $(500) | $(100) |

The following tables provide a reconciliation of the benefit obligation, plan assets and funded status of the plans:

| | Pension benefits | | Other retirement benefits | |
|---|---|---|---|---|
| Change in benefit obligation: | 1998 | 1997 | 1998 | 1997 |
| Benefit obligation, January 1 | $(120,400) | $(108,800) | $(7,400) | $(6,600) |
| Service cost | (3,600) | (3,600) | (500) | (400) |
| Interest cost | (8,500) | (8,000) | (500) | (500) |
| Plan participants' contributions | 200 | 200 | 100 | 100 |
| Actuarial gain | (5,500) | (6,200) | (400) | (300) |
| Benefits/ expenses paid | 6,200 | 5,400 | 300 | 300 |
| Foreign exchange impact | (300) | 600 | - | - |
| Benefit obligation, December 31 | $(131,900) | $(120,400) | $(8,400) | $(7,400) |
| Change in plan assets: | | | | |
| Fair value of plan assets, January 1 | $165,900 | $144,200 | $ - | $ - |
| Actual return on plan assets | 28,600 | 26,500 | - | - |
| Employer contribution | 900 | 600 | 200 | 200 |
| Plan participants' contributions | 200 | 200 | 100 | 100 |
| Benefits/expenses paid | (6,200) | (5,400) | (300) | (300) |
| Foreign exchange impact | - | (200) | - | - |
| Fair value of plan assets, December 31 | $189,400 | $165,900 | $ - | $ - |

| | | | | |
|---|---|---|---|---|
| Assets in excess (less than) benefits: | $57,500 | $45,500 | $(8,400) | $(7,400) |
| Unrecognized net actuarial gain | (47,800) | (38,100) | 1,100 | 900 |
| Unrecognized transition asset | (3,300) | (4,100) | - | - |
| Unrecognized prior service cost | 3,300 | 200 | (6,000) | (7,500) |
| December 31: | | | | |
| Prepaid benefit cost | $16,700 | $9,900 | - | - |
| Accrued liability | $(7,000) | $(6,400) | $(13,300) | $(14,000) |

The aggregate projected benefit obligation and aggregate fair value of plan assets for pension plans with obligation in excess of plan assets were $8,500 and $600, respectively, as of December 31, 1998, and $12,900 and $4,700, respectively, at December 31, 1997.



| | Pension benefits | | Other retirement benefits | |
|---|---|---|---|---|
| | 1998 | 1997 | 1998 | 1997 |
| Weighted average assumptions as of December 31: | | | | |
| Discount rate | 6.7% | 7.0% | 6.75% | 7.0% |
| Rate of compensation increase | 5.5% | 5.9% | - | - |
| Long-term rate of return on assets | 9.3% | 9.2% | - | - |

The assumed healthcare cost trend used is 8.5% in 1999, decreasing to 5.5% by 2006. Increasing or decreasing the assumed trend rate for healthcare costs by one percentage point would result in a $500 increase and decrease, respectively, in the accumulated postretirement benefit obligation. The related change in the aggregate service and interest cost components of the 1998 plan expense is a $100 increase and decrease, respectively.

The Company provides certain post-employment benefits for terminated and disabled employees, including severance pay, disability-related benefits and healthcare benefits. These costs are accrued over the employee s active service period under certain circumstances or at the date of the event triggering the benefit.

The Company also sponsors a defined contribution savings plan for certain salaried and hourly United States employees. Company contributions are equal to 50% of each participant s contribution up to 6% of the participant s base compensation. Total expense of $1,200, $900 and $900 was incurred for Company contributions in 1998, 1997 and 1996, respectively.

Capital Stock

Purchases (sales) of common stock held in treasury during the three years ended December 31, 1998, are as follows:

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Shares held, January 1 | 277,200 | 462,200 | 224,000 |
| Purchases, net at fair market value | 2,026,300 | 40,200 | 507,200 |
| Shares issued for acquisition | - | - | (19,600) |
| Stock option exercises | (164,000) | (225,200) | (249,400) |
| Shares held, December 31 | 2,139,500 | 277,200 | 462,200 |

In October 1998, the Company purchased 2,000,000 shares of its common stock in a Dutch Auction self-tender at a price of $30.00



per share.

In 1996, the Company purchased, in accordance with an agreement approved by a majority of non-interested members of the Board of Directors, 440,000 shares of its common stock owned by a director who retired from the Board of Directors. The aggregate purchase price was $10,000.

The Company's Shareholders Rights Plan entitles a shareholder to purchase 1/1000 of a share of a newly designated series of the Company s preferred stock at a price of $75.00 with each Right. A Right becomes exercisable if a person or group (acquiror) acquires 15% or more of the common stock or commences a tender offer that would result in the acquiror owning 18% or more of the common stock. After the Rights become exercisable, and in the event the Company is involved in a merger or other business combination, sale of 50% or more of its assets or earning power, or if an acquiror purchases 18% or more of the common stock or engages in self-dealing transactions, a Right will entitle its holder to purchase common stock of the surviving company having a market value twice the exercise price of the Right. The Rights may be redeemed by the Company at $.001 per Right at any time before certain events occur. Two Rights are attached to each share of common stock, and such Rights will not trade separately unless they become exercisable. All Rights expire on January 15, 2000.

In 1992, the Company made an offering under an employee stock purchase plan, which provides for the sale of the Company s common stock to substantially all employees at 85% of fair market value. The offer has been extended to December 31, 1999. An employee's purchases are limited annually to 10% of base compensation. Shares are purchased in the open market, or treasury shares are used.

Stock Option and Award Plans

The Company has two long-term incentive plans for officers and key management employees of the Company and its subsidiaries. Options may no longer be granted under one of the plans. The plans provide for the grant of stock options, stock appreciation rights, restricted stock awards and performance awards. At December 31, 1998, 1,364,700 shares of common stock are available for future grants. A committee of the Board of Directors determines the terms and conditions of grants, except that the exercise price of certain options cannot be less than 100% of the fair market value of the stock on the date of grant. All stock options and stock appreciation rights are exercisable at the date indicated in connection with their issuance, but not later than 10 years after the date of grant. Option activity is summarized in the following table.

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Options outstanding, January 1 | 1,285,200 | 750,400 | 854,600 |
| Granted | 132,500 | 748,500 | 209,800 |
| Exercised | (144,100) | (213,700) | (249,400) |
| Forfeited | (53,000) | - | (64,600) |
| Options outstanding, December 31 | 1,220,600 | 1,285,200 | 750,400 |
| Options exercisable, December 31 | 594,200 | 640,200 | 630,400 |

| Weighted-Average Exercise Price | 1998 | 1997 | 1996 |
|---|---|---|---|
| Options outstanding, January 1 | $27.23 | $23.42 | $22.60 |
| Granted | 30.46 | 28.82 | 22.45 |
| Exercised | 22.32 | 21.45 | 20.00 |
| Forfeited | 28.84 | - | 22.73 |
| Options outstanding, December 31 | 28.08 | 27.23 | 23.42 |
| Options exercisable, December 31 | 27.67 | 27.04 | 22.13 |

The range of exercise prices at December 31, 1998, is $15.13 to $30.63 per share.

Under the Company's management incentive plan, participants are paid cash bonuses on the attainment of certain financial goals. Bonus participants are required to use 25% of their cash bonus, after certain adjustments for taxes payable, to purchase common stock of the Company at current fair market value. Bonus participants are given a restricted stock award equal to one share for each four shares of common stock purchased with bonus awards. These stock awards vest at the end of four years provided that the participant has not made a disqualifying disposition of the stock purchased. Restricted stock awards were granted for 3,800 shares in 1998 and 2,900 shares in 1997, and in 1998, 1997 and 1996, respectively, 300 shares, 300 shares and 1700 shares were forfeited. Compensation expense is being recognized over the vesting period based on the fair market value of common stock on the award date: $31.47 per share in 1998 and $27.57 per share in 1997.

A nonqualified stock option plan for non-employee directors provides for an annual grant to each eligible director of options covering 1,500 shares at an option price equal to 100% of the fair market value of the Company's common stock on the date of grant. At December 31, 1998, 102,500 shares are available for future grants. Option activity under this plan during the three years ended December 31, 1998, is summarized below:

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Options outstanding, January 1 | 63,500 | 61,500 | 48,000 |
| Granted | 15,000 | 13,500 | 13,500 |
| Exercised | (12,000) | (11,500) | - |
| Options outstanding, December 31 | 66,500 | 63,500 | 61,500 |
| Options exercisable, December 31 | 51,500 | 63,500 | 61,500 |

| Weighted-Average Exercise Price | 1998 | 1997 | 1996 |
|---|---|---|---|
| Options outstanding, January 1 | $25.49 | $24.18 | $24.60 |
| Granted | 30.72 | 28.13 | 22.69 |
| Exercised | 23.81 | 22.28 | - |
| Options outstanding, December 31 | 26.97 | 25.49 | 24.18 |
| Options exercisable, December 31 | 25.88 | 25.49 | 24.18 |

The range of exercise prices at December 31, 1998, is $22.69 to $30.72 per share. The weighted-average remaining contractual life at December 31, 1998 for all plans is 5.2 years.

The Company has elected to measure compensation cost using the intrinsic value method of accounting. Accordingly, no compensation cost has been recognized related to stock option and stock purchase plans because grants are at 100% of fair market value on the grant date. If the fair-value based method of accounting had been applied to stock option grants in the most recent three years, the Company's net income and basic net income per share would have been reduced as summarized below:

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| Net income: | | | |
| As reported | $ 6,700 | $44,400 | $16,400 |
| Pro forma | 5,700 | 43,200 | 15,700 |
| Net income per share: | | | |
| As reported | $ .41 | $ 2.69 | $ 1.00 |
| Pro forma | .35 | 2.62 | .96 |

The following assumptions were used to compute the fair value of the option grants in 1998, 1997 and 1996 using the Black-Scholes option-pricing model: a risk-free interest rate of 5.75%, 6.15%



and 5.87%, respectively, stock volatility of 22.4%, 22.2% and 25.7%, respectively; dividend yield of 2% for all years; and expected option lives of three years for the long-term plan and two years for the non-employee directors plan.

Commitments and Contingencies

The Company announced on December 22, 1998, a definitive agreement to acquire the assets of the Clinical Services Division of Collaborative Clinical Research, Inc. for $15,000, subject to post-closing adjustments.

At December 31, 1998, the Company was obligated under various operating lease agreements with terms ranging from one month to 20 years. Rental expense in 1998, 1997 and 1996 was $7,300, $7,600 and $7,900, respectively. Minimum rentals for noncancelable operating leases with initial or remaining terms in excess of one year are: 1999--$7,600; 2000--$6,700; 2001--$6,500; 2002--$6,000; 2003--$6,100 and thereafter $46,200. Minimum operating lease payments have been reduced by related minimum sublease income.

At December 31, 1998, outstanding contractual commitments for the purchase of equipment and raw materials amounted to $13,800, all of which is due to be paid in 1999.

The Company has accrued the estimated cost of environmental compliance expenses related to soil or groundwater contamination at current and former manufacturing facilities. The ultimate cost to be incurred by the Company and the timing of such payments cannot be fully determined. However, based on consultants' estimates of the costs of remediation in accordance with applicable regulatory requirements, the Company believes the accrued liability of $1,300 at December 31, 1998, is sufficient to cover the future costs of these remedial actions, which will be carried out over the next several years. The Company has not anticipated any possible recovery from insurance or other sources.

Segment Information
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The Company adopted Financial Accounting Standards No. 131, "Disclosures about Segments of an Enterprise and Related Information" at December 31, 1998. Prior years' data on segment and geographic information has been restated. West Pharmaceutical Services, Inc. serves the healthcare and consumer products industries through design, manufacture and sales of stoppers, closures, medical device components and assemblies made from elastomers, metal and plastics. This segment is referred to as Device Product Development and it consists of four regional business units that manufacture and sell these products to customers mainly in their respective regions. The Company also provides contract services to healthcare and consumer companies consisting of manufacture and/or packaging of drugs and personal care items and laboratory testing. This segment is referred to as Contract Services and consists of two business units. Finally, the Company is engaged in research and development of drug delivery systems for bio-pharmaceutical and other drugs to



improve their therapeutic performance and/or the method of administration. This segment, consisting of two business units, is referred to as Drug Delivery Research and Development.

The Company's executive management evaluates performance of these segments based on operating profit, and allocates resources to them based on the assessment for market growth and profitability. Operating profit is income before interest expense, income taxes, minority interests and equity in affiliates. Corporate expenses, including global functional management costs, and unusual items (restructuring charges in 1998 and 1996 and the 1998 acquired research and development charge) are not allocated to segments. The accounting policies of the segments are the same as those reported in the Summary of Significant Accounting Policies on page 22. Total net sales generated from the Device Product Development segment include sales to one customer of approximately $53,200, $50,500 and $48,300 in 1998, 1997 and 1996, respectively.

Summarized financial information concerning the Company's segments is shown in the following table. The consolidated total of operating profit corresponds to operating profit in the accompanying Consolidated Statements of Income.

| | Device product development | Contract services | Drug delivery research and development | Corporate and unallocated items | Consolidated total |
|---|---|---|---|---|---|
| 1998 | | | | | |
| Net sales | $365,600 | $82,600 | $1,500 | $ - | $449,700 |
| Interest income | 1,600 | 100 | - | 1,000 | 2,700 |
| Operating profit | 83,800 | 9,700 | (5,300) | (53,200) | 35,000 |
| Segment assets | 337,300 | 80,500 | 13,400 | 74,400 | 505,600 |
| Capital expenditures | 31,500 | 6,700 | 1,400 | 2,200 | 41,800 |
| Depreciation and amortization expense | 24,000 | 4,400 | 1,300 | 2,600 | 32,300 |
| 1997 | | | | | |
| Net sales | $371,900 | $80,600 | $ - | $ - | $452,500 |
| Interest income | 1,300 | 100 | - | 600 | 2,000 |
| Operating profit | 85,300 | 3,800 | (3,200) | (22,900) | 63,000 |
| Segment assets | 324,200 | 73,300 | 2,800 | 77,600 | 477,900 |
| Capital expenditures | 25,200 | 4,300 | 1,200 | 3,700 | 34,400 |
| Depreciation and amortization expense | 24,500 | 4,400 | 200 | 2,800 | 31,900 |
| 1996 | | | | | |
| Net sales | $387,300 | $71,500 | $ - | $ - | $458,800 |
| Interest income | 900 | - | - | 400 | 1,300 |
| Operating profit | 83,700 | (700) | (2,300) | (48,000) | 32,700 |
| Segment assets | 344,200 | 77,600 | 2,000 | 53,600 | 477,400 |
| Capital expenditures | 25,500 | 4,500 | 400 | 1,300 | 31,700 |
| Depreciation and amortization expense | 24,300 | 3,700 | 200 | 2,500 | 30,700 |

The following table presents sales by country in which the legal subsidiary is domiciled and assets are located.



| | Sales | | | Long lived assets | | |
|---|---|---|---|---|---|---|
| | 1998 | 1997 | 1996 | 1998 | 1997 | 1996 |
| United States | $282,300 | $293,200 | $283,900 | $135,400 | $127,700 | $125,400 |
| Germany | 50,000 | 51,800 | 59,500 | 29,100 | 26,200 | 30,600 |
| Other European countries | 85,400 | 71,300 | 76,700 | 50,800 | 35,500 | 38,700 |
| Other | 32,000 | 36,200 | 38,700 | 17,300 | 17,100 | 20,200 |
| | $449,700 | $452,500 | $458,800 | $232,600 | $206,500 | $214,900 |

QUARTERLY OPERATING AND PER SHARE DATA (UNAUDITED)
WEST PHARMACEUTICAL SERVICES, INC. AND SUBSIDIARIES
(in thousands of dollars, except per share data)

| Quarter ended | Net sales | Gross profit | Net income (loss) | Net income (loss) per share Basic | Net income (loss) per share Assuming dilution |
|---|---|---|---|---|---|
| March 31, 1998(1) | $105,200 | $ 31,300 | $(19,700) | $(1.19) | $(1.19) |
| June 30, 1998 | 115,800 | 34,800 | 9,900 | .58 | .58 |
| September 30, 1998(2) | 113,900 | 33,400 | 6,500 | .38 | .38 |
| December 31, 1998 | 114,800 | 35,700 | 10,000 | .66 | .66 |
| | $449,700 | $135,200 | $ 6,700 | $ .41 | $ .40 |
| March 31, 1997 | $114,700 | $ 32,700 | $ 8,400 | $ .51 | $ .51 |
| June 30, 1997 | 123,100 | 36,300 | 10,100 | .61 | .61 |
| September 30, 1997(3) | 105,200 | 29,200 | 17,300 | 1.05 | 1.05 |
| December 31, 1997(3) | 109,500 | 33,900 | 8,600 | .52 | .51 |
| | $452,500 | $132,100 | $ 44,400 | $ 2.69 | $2.68 |

(1) First quarter 1998 results include a charge for acquired research and development. See Note "Acquisitions and Investments" on page 23.

(2) Third quarter 1998 results include a charge related to staff reductions. See Note "Restructuring Charges" on page 23.

(3) Third quarter 1997 results include net tax benefits related mainly to the legal reorganization of subsidiaries located in Germany; fourth quarter 1997 results include adjustment to these net tax benefits related to changes in the tax law and a tax audit. See Note "Income Taxes" on page 24.



REPORT OF INDEPENDENT ACCOUNTANTS

TO THE SHAREHOLDERS AND THE BOARD OF DIRECTORS OF
WEST PHARMACEUTICAL SERVICES, INC.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows present fairly, in all material respects, the financial position of West Pharmaceutical Services, Inc. and its subsidiaries at December 31, 1998 and 1997, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1998, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with generally

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

PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
February 26, 1999



REPORT OF MANAGEMENT

The Company's management is responsible for the integrity, reliability and objectivity of publicly reported financial information. Management believes that the financial statements as of and for the year ended December 31, 1998, have been prepared in conformity with generally accepted accounting principles and that information presented in this Annual Report is consistent with those statements. In preparing the financial statements, management makes informed judgments and estimates where necessary, with appropriate consideration given to materiality.

In meeting its responsibility for preparing financial statements, management maintains a system of internal accounting controls to assure the safety of its assets against unauthorized acquisition, use or disposition. This system is designed to provide reasonable assurance that assets are safeguarded and transactions are executed in accordance with management's authorization and recorded properly, allowing for preparation of reliable financial statements. There are inherent limitations in the effectiveness of all internal control systems. The design of the Company's system recognizes that errors or irregularities may occur and that estimates and judgments are required to assess the relative cost and expected benefits of the controls. Management believes that the Company's accounting controls provide reasonable assurance that errors or irregularities that could be material to the financial statements are prevented or would be detected within a timely period.

The independent accountants are appointed by the Board of Directors, with the approval of the shareholders. As part of their engagement, the independent accountants audit the Company's financial statements, express their opinion thereon, and review and evaluate selected systems, accounting procedures and internal controls to the extent they consider necessary to support their report.

/s/ William G. Little
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William G. Little
Chairman and Chief Executive Officer

/s/ Steven A. Ellers
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Steven A. Ellers
Senior Vice President and Chief Financial Officer

TEN-YEAR SUMMARY
WEST PHARMACEUTICAL SERVICES, INC. AND SUBSIDIARIES
(in thousands, except per share data)

| | 1998 | 1997 | 1996 |
|---|---|---|---|
| SUMMARY OF OPERATIONS | | | |
| Net sales | $ 449,700 | 452,500 | 458,800 |
| Operating profit (loss) | $ 35,000 | 63,000 | 32,700 |
| Income (loss) before income taxes and minority interests | $ 27,800 | 57,400 | 25,800 |
| Provision for income taxes | $ 21,200 | 13,300 | 10,800 |
| Minority interests | $ 100 | 200 | 100 |
| Income (loss) from consolidated operations | $ 6,500 | 43,900 | 14,900 |
| Equity in net income of affiliated companies | $ 200 | 500 | 1,500 |
| Income (loss)before change in accounting method | $ 6,700 | 44,400 | 16,400 |
| Income (loss) before change in accounting method per share: | | | |
| Basic (a) | $ .41 | 2.69 | 1.00 |
| Assuming dilution (b) | $ .40 | 2.68 | .99 |
| Average common shares outstanding | 16,435 | 16,475 | 16,418 |
| Average shares, assuming dilution | 16,504 | 16,572 | 16,500 |
| Dividends paid per common share | $ .61 | .57 | .53 |
| Research, development and engineering expenses | $ 14,500 | 12,000 | 11,200 |
| Capital expenditures | $ 41,800 | 34,400 | 31,700 |
| YEAR-END FINANCIAL POSITION | | | |
| Working capital | $ 55,500 | 112,700 | 91,100 |
| Total assets | $ 505,600 | 477,900 | 477,400 |
| Total invested capital: | | | |
| Total debt | $ 141,100 | 89,000 | 98,400 |
| Minority interests | $ 600 | 400 | 300 |
| Shareholders' equity | $ 230,100 | 277,700 | 252,000 |
| Total | $ 371,800 | 367,100 | 350,700 |
| PERFORMANCE MEASUREMENTS | | | |
| Gross margin (c) | % 30.1 | 29.2 | 27.5 |
| Operating profitability (d) | % 7.8 | 13.9 | 7.1 |



| | | | |
|---|---|---|---|
| Tax rate | % 76.1 | 23.2 | 41.8 |
| Asset turnover ratio (e) | .91 | .95 | .96 |
| Return on average shareholders' equity | % 2.6 | 16.7 | 6.5 |
| Total debt as a percentage of total invested capital | % 37.9 | 24.2 | 28.1 |
| Shareholders' equity per share | $ 15.31 | 16.76 | 15.39 |
| Stock price range | $3511/16-25 | 351/16-27 | 30-22 |

(a) Based on average common shares outstanding.
(b) Based on average shares, assuming dilution.
(c) Net sales minus cost of goods sold, including applicable depreciation and amortization, divided by net sales.
(d) Operating profit (loss) divided by net sales.
(e) Net sales divided by average total assets; 1993 asset turnover ratio is based on 12 months' sales for

international subsidiaries.

1998 includes a charge for acquired research and development and a restructuring charge that reduced operating results by $1.72 per share and $.15 per share, respectively, and 1998 includes for the first time the results of two companies acquired in 1998.
1997 includes the net tax benefit mainly from a German tax reorganization which increased net income per share by $.48.
1996 includes a restructuring charge that reduced operating results by $.91 per share.
1995 includes for the first time the net operating results of Paco from May 1.
1994 includes for the first time the results of two companies in which majority ownership was acquired in 1994.
1993 includes 13 months of operating results for international subsidiaries.
Beginning in 1992 the Company's ownership interest in glass manufacturing operating results is reported as equity in net income of affiliates. Prior to the 1992 sale of a majority interest in such operation, operating results were fully consolidated.
1991 includes a restructuring charge that reduced operating results by $1.37 per share.
1990 includes a restructuring charge that reduced operating results by $.45 per share, and 1990 included for the first time the results of two companies in which controlling



ownership was acquired in 1989.

TEN YEAR SUMMARY
WEST PHARMACEUTICAL SERVICES, INC. AND SUBSIDIARIES
(in thousands, except per share data)

| 1995 | 1994 | 1993 | 1992 | 1991 | 1990 | 1989 |
|---|---|---|---|---|---|---|
| 412,900 | 365,100 | 348,700 | 337,500 | 328,900 | 323,200 | 308,700 |
| 49,800 | 45,400 | 40,600 | 38,700 | (1,600) | 15,600 | 38,700 |
| 42,500 | 42,100 | 37,500 | 34,800 | (7,700) | 9,600 | 34,400 |
| 13,900 | 13,400 | 14,300 | 14,300 | 4,700 | 6,400 | 13,200 |
| 800 | 1,900 | 1,700 | 1,700 | (2,400) | 300 | 2,100 |
| 27,800 | 26,800 | 21,500 | 18,800 | (10,000) | 2,900 | 19,100 |
| 900 | 500 | 1,000 | 900 | 1,500 | 1,400 | 1,600 |
| 28,700 | 27,300 | 22,500 | 19,700 | (8,500) | 4,300 | 20,700 |
| 1.73 | 1.70 | 1.42 | 1.26 | (.55) | .27 | 1.28 |
| 1.71 | 1.69 | 1.41 | 1.25 | (.55) | .27 | 1.27 |
| 16,557 | 16,054 | 15,838 | 15,641 | 15,527 | 15,793 | 16,235 |
| 16,718 | 16,215 | 16,010 | 15,776 | 15,527 | 15,816 | 16,301 |
| .49 | .45 | .41 | .40 | .40 | .40 | .31 |
| 12,000 | 12,000 | 11,400 | 11,100 | 10,800 | 10,900 | 11,900 |
| 31,300 | 27,100 | 33,500 | 22,400 | 25,600 | 33,200 | 34,300 |
| 86,600 | 50,400 | 46,400 | 37,700 | 26,500 | 36,500 | 50,400 |
| 480,100 | 397,400 | 309,200 | 304,400 | 313,200 | 343,500 | 313,000 |
| 114,300 | 57,800 | 32,300 | 42,000 | 58,400 | 78,500 | 58,100 |
| 200 | 1,900 | 10,900 | 10,100 | 8,400 | 11,700 | 9,100 |
| 254,100 | 227,300 | 188,100 | 168,600 | 152,600 | 176,100 | 179,700 |
| 368,600 | 287,000 | 231,300 | 220,700 | 219,400 | 266,300 | 246,900 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 28.6 | 32.1 | 30.2 | 28.8 | 25.6 | 24.4 | 26.5 |
| 12.1 | 12.4 | 11.7 | 11.5 | (.5) | 4.8 | 12.5 |
| 32.8 | 31.8 | 38.2 | 41.1 | 61.7 | 66.5 | 38.5 |
| .94 | 1.04 | 1.11 | 1.10 | 1.00 | .98 | 1.01 |
| 11.9 | 13.2 | 13.2 | 12.3 | (8.9) | 2.4 | 11.8 |
| 31.0 | 20.1 | 14.0 | 19.1 | 26.6 | 29.5 | 23.5 |
| 15.29 | 13.81 | 11.82 | 10.71 | 9.81 | 11.37 | 11.15 |
| 305/8-225/8 | 291/8-211/4 | 251/4-197/8 | 241/8-163/4 | 183/4-111/8 | 20-101/2 | 225/8 -147/8 |

Exhibit 21

SUBSIDIARIES OF THE COMPANY

| | State/Jurisdiction Incorporation of Ownership | Direct Stock | |
|---|---|---|---|
| West Pharmaceutical Services, Inc. | Pennsylvania | Parent Co. | |
| The West Company of Michigan, Inc. | Michigan | 100.0 | |
| West Pharmaceutical Services Lakewood, Inc. | Delaware | 100.0 | |
| Paco Packaging, Inc. | Delaware | 100.0 | |
| Paco Technologies, Inc. | Delaware | 100.0 | |
| Paco Laboratories, Inc. | Delaware | 100.0 | |
| Charter Laboratories, Inc. | Delaware | 100.0 | |
| West Pharmaceutical Services Canovanas, Inc. | Delaware | 100.0 | |
| Citation Plastics Co. | New Jersey | 100.0 | |
| West Pharmaceutical Services Vega Alta, Inc. | Delaware | 100.0 | |
| West Pharmaceutical Services of Florida, Inc. | Florida | 100.0 | |
| Senetics, Inc. | Colorado | 100.0 | |
| West International Sales Corporation | U.S. Virgin Islands | 100.0 | |
| West Pharmaceutical Services of Delaware, Inc. | Delaware | 100.0 | |
| West Pharmaceutical Services Colombia S.A. | Colombia | 52.1 | (1) |
| The West Company Holding GmbH | Germany | 100.0 | |
| The West Company (Custom & Specialty Services) GmbH | Germany | 100.0 | |
| The West Company Danmark A/S | Denmark | 100.0 | |
| The West Company Italia S.R.L. | Italy | 95.0 | (3) |
| West Pharmaceutical Services France S.A. | France | 99.99 | (4) |
| The West Company Verwaltungs GmbH | Germany | 100.0 | |
| The West Company Deutschland GmbH & Co KG | Germany | 100.0 | |
| The West Company Hispania S.A. Spain | 27.4 (5) | | |
| Pharma-Gummi Beograd | Yugoslavia | 84.7 | (2) |
| The West Company (Mauritius) Ltd. | Mauritius | 100.0 | |
| The West Company (India) Private Ltd. | India | 100.0 | |
| West Pharmaceutical Services Group Limited | England | 100.0 | |
| West Pharmaceutical Services Drug Delivery & Clinical Research Centre Ltd. | England | 100.0 | |
| West Pharmaceutical Services Cornwall Ltd. | England | 100.0 | |
| Plasmec PLC | England | 100.0 | |
| West Pharmaceutical Services Lewes Ltd. | England | 100.0 | |
| The West Company Argentina S.A. | Argentina | 100.0 | |
| West Pharmaceutical Services Brasil Ltda. | Brasil | 100.0 | |
| The West Company Venezuela C.A. | Venezuela | 100.0 | |
| The West Company Singapore Pty. Ltd. | Singapore | 100.0 | |
| West Pharmaceutical Services Australia Pty. Ltd. | Australia | 100.0 | |
| West Company Korea Ltd. | Korea | 100.0 | |

(1) In addition, 46.16 % is owned directly by West Pharmaceutical Services, Inc.; 1.55% is held in treasury by West Pharmaceutical Services Colombia S.A.

(2) Affiliated company accounted for on the cost basis.

(3) In addition, 5 % is owned directly by West Pharmaceutical Services, Inc.;
(4) In addition, .01% is owned directly by 9 Individual Shareholders.
(5) In addition, 54.7% is owned directly by West Pharmaceutical Services, Inc.; 17.9% is owned by one shareholder.

Exhibit 23

CONSENT OF INDEPENDENT ACCOUNTANTS

We consent to the incorporation by reference in the registration statements of West Pharmaceutical Services, Inc. and subsidiaries, on Form S-8 (Registration Nos. 2-95618, 2-45534, 33-39506, 33-32580, 33-37825, 33-61074, 33-61076, 33-12287, 33-12289, and 33-53817) of our report dated February 26, 1999, on our audits of the consolidated financial statements of West Pharmaceutical Services, Inc. and subsidiaries as of December 31, 1998 and 1997, and for the years ended December 31, 1998, 1997, and 1996, which report is incorporated in this Annual Report on Form 10-K.

_____
PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
March 31, 1999

Exhibit 24

POWER OF ATTORNEY

The undersigned hereby authorizes and appoints William G. Little and John R. Gailey III, and each of them, as her attorneys-in-fact to sign on her behalf and in her capacity as a director of West Pharmaceutical Services, Inc., and to file, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 and all amendments, exhibits and supplements thereto.

Date: March 6, 1999

/s/ Tenley E. Albright, M.D.
Tenley E. Albright, M.D.

POWER OF ATTORNEY

The undersigned hereby authorizes and appoints William G. Little and John R. Gailey III, and each of them, as his attorneys-in-fact to sign on his behalf and in his capacity as a director of West Pharmaceutical Services, Inc., and to file, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 and all amendments, exhibits and supplements thereto.

Date: March 6, 1999

/s/ John W. Conway
John W. Conway

POWER OF ATTORNEY

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Date: March 6, 1999

/s/ G. W. Ebright
George W. Ebright

POWER OF ATTORNEY

The undersigned hereby authorizes and appoints William G. Little and John R. Gailey III, and each of them, as his attorneys-in-fact to sign on his behalf and in his capacity as a director of West Pharmaceutical Services, Inc., and to file, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 and all amendments, exhibits and supplements thereto.

Date: March 6, 1999

/s/ L. Robert Johnson
L. Robert Johnson

POWER OF ATTORNEY

The undersigned hereby authorizes and appoints William G. Little and John R. Gailey III, and each of them, as his attorneys-in-fact to sign on his behalf and in his capacity as a director of West Pharmaceutical Services, Inc., and to file, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 and all amendments, exhibits and supplements thereto.

Date: March 6, 1999

/s/ William H. Longfield
William H. Longfield

POWER OF ATTORNEY

The undersigned hereby authorizes and appoints William G. Little and John R. Gailey III, and each of them, as his attorneys-in-fact to sign on his behalf and in his capacity as a director of West Pharmaceutical Services, Inc., and to file, the

Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 and all amendments, exhibits and supplements thereto.

Date: March 6, 1999 /s/ J. P. Neafsey
John P. Neafsey

POWER OF ATTORNEY

The undersigned hereby authorizes and appoints William G. Little and John R. Gailey III, and each of them, as his attorneys-in-fact to sign on his behalf and in his capacity as a director of West Pharmaceutical Services, Inc., and to file, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 and all amendments, exhibits and supplements thereto.

Date: March 6, 1999 /s/ Anthony Welters
Anthony Welters

POWER OF ATTORNEY

The undersigned hereby authorizes and appoints William G. Little and John R. Gailey III, and each of them, as his attorneys-in-fact to sign on his behalf and in his capacity as a

director of West Pharmaceutical Services, Inc., and to file, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 and all amendments, exhibits and supplements thereto.

Date: March 6, 1999

/s/ J. Roffe Wike, II
J. Roffe Wike, II

POWER OF ATTORNEY

The undersigned hereby authorizes and appoints William G. Little and John R. Gailey III, and each of them, as his attorneys-in-fact to sign on his behalf and in his capacity as a director of West Pharmaceutical Services, Inc., and to file, the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998 and all amendments, exhibits and supplements thereto.

Date: March 6, 1999

/s/ Geoffrey F. Worden
Geoffrey F. Worden

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