



In 1988, Penwest renewed its focus, concentrated its resources in areas with significant profit potential, and positioned itself for continued growth.

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THE COMPANY

PENWEST is a rapidly growing producer of high value-added specialty carbohydrate products, food and flavor ingredients, and agricultural nutrition supplements. The company's principal sources of revenue are specialty chemical starch products for the textile and paper industries and varietal malted barley for the brewing industry. **PENWEST** is a March 1984 spin-off from Univar Corporation of Seattle.

Penford Products Co., a division of **PENWEST**, is a leading producer of chemically-modified specialty starches and is the paper industry's major supplier of chemical starch coatings. The division's plants are in Cedar Rapids, Iowa, and Idaho Falls, Idaho.

PENWEST's malting division, Great Western Malting Co., is the leading producer of high-quality brewer's malt in the West, serving brewers throughout the western and southwestern U.S. and selected nations of the Pacific Rim. Production facilities are in Vancouver, Washington, Pocatello, Idaho and Los Angeles, California.

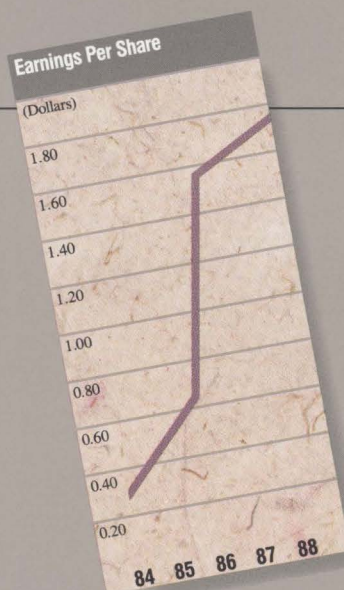
PENWEST's corporate headquarters are at 777 108th Avenue NE, Suite 2390, Bellevue, WA 98004. Telephone number (206) 462-6000.

The fine printing and writing papers in this annual report have been treated with specialty starch products developed and sold through **PENWEST**'s Penford Products Co.

Highlights

Financial Highlights

	Year Ended August 31				
(Thousands of dollars except per share data)	1988	1987	1986	1985	1984
Operating Data:					(Unaudited)
Net sales	\$141,682	\$135,990	\$134,809	\$146,141	\$138,966
Net income	9,545	9,133	4,253	2,802	1,992
Earnings per share	1.67	1.59	0.65	0.46	0.33
Average shares outstanding	5,728,298	5,753,727	6,503,054	6,069,310	6,072,802
Effective tax rate	33.8%	45.2%	47.2%	50.2%	46.8%
Balance Sheet Data:					
Total assets	141,242	120,378	117,216	125,713	129,153
Total liabilities	105,513	92,711	91,644	104,038	110,640
Current assets	55,649	42,260	38,823	43,533	42,070
Current liabilities	30,890	26,271	20,811	20,481	15,497
Working capital	24,759	15,989	18,012	23,052	26,573
Revolving credit	8,775				13,000
Long-term debt	40,681	39,747	45,876	61,879	62,381
Shareholders' equity	35,729	27,667	25,572	21,315	18,513
Capital expenditures	14,673	6,355	2,965	1,926	1,213



Letter to Shareholders

Since its inception, PENWEST has aggressively pursued the creation of maximum value growth for our shareholders through long-term profit on invested capital and the growth of that capital. This past year, your management took steps to enhance our ability to realize that goal. The principal components of our plan are:

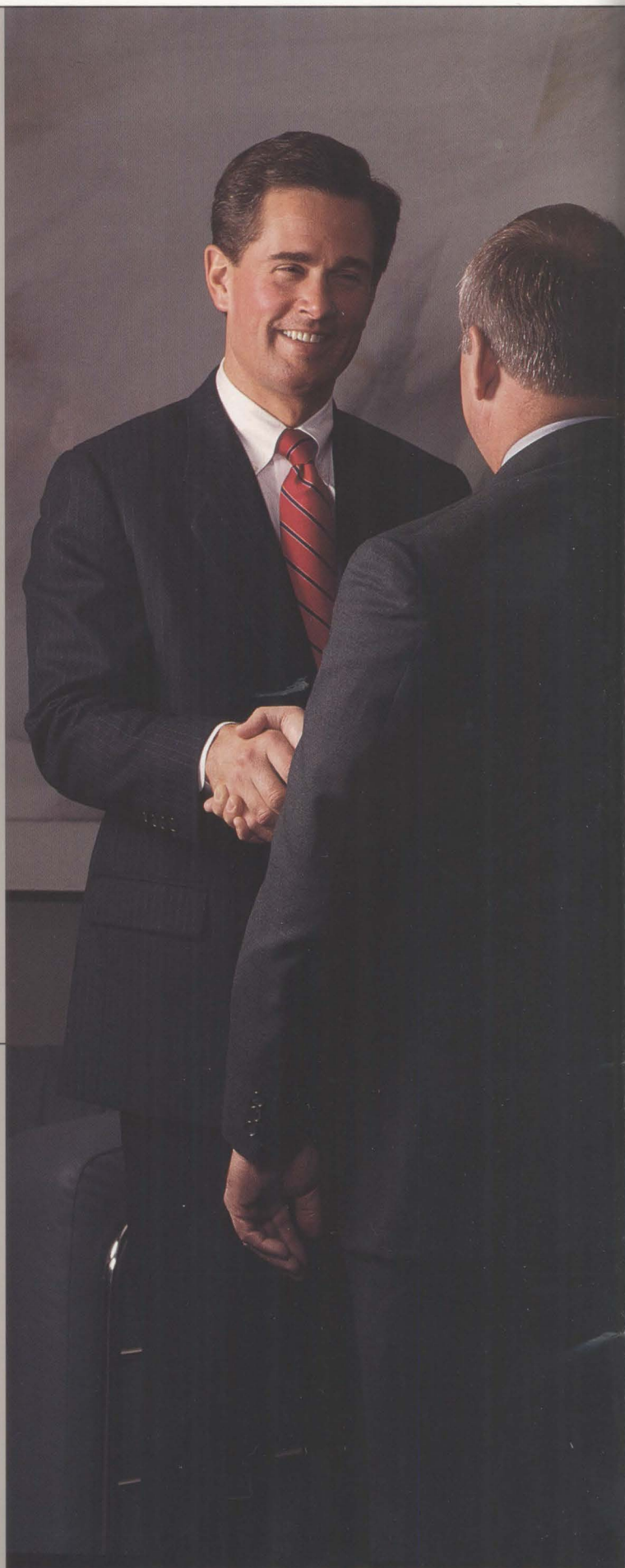
- to sell substantially all the assets of our Great Western Malting division, and;
- to reinvest the proceeds in higher-margin businesses which more closely resemble the business profile of our Penford Products division. Penford, which has accounted for substantially all of PENWEST's growth in recent years, is the paper industry's leading supplier of specialty chemical starches for coatings and sizings.

As we go to press with this report, negotiations for the sale of Great Western are going smoothly. We have received bids from a number of parties for all three of the division's processing plants and hope to conclude a transaction some time during the first few months of calendar 1989.

Options For Growth The management team now can focus its full attention on the high-growth components of our business, on the development of new products for the paper and textile industries and on the acquisition of new businesses that offer high growth potential.

We are reviewing a number of options.

The first is an accelerated new product development program within our existing R & D capability at Penford. We believe we can continue to lead the industry in innovative



products that will bring greater efficiencies, lower costs and higher quality to our customers in the paper, textile and food industries.

We also will investigate further opportunities in co-product development. Fast Break™, the nutritional supplement developed by Penford in 1987 for the mushroom industry, is an example of how innovation can transform a component of the co-product stream into a high value-added supplement that delivers measurable results for commercial users. Three other products of this type are underway in R & D, and at least one of them will be introduced late in the 1989 fiscal year.

The company also will explore growth areas that may be outside the scope of our traditional businesses but would use the expertise of our R & D team in combination with some of Penford's tangible assets.

Biotechnology holds some intriguing possibilities for new products. PENWEST will continue to explore these opportunities both in-house and in partnership with others.

Finally, we are seeking partners, through joint ventures, by licensing agreements or by the acquisition of other businesses either in whole or in part.

The key in evaluating various emerging opportunities is the extent to which they fit PENWEST's technological, manufacturing and marketing expertise, and the degree to which they match Penford's business profile and profit objectives. Candidates include, but are not necessarily limited to, producers of specialty chemicals for the paper or textile industries, manufacturers of coatings and adhesives, makers of specialty food or flavor ingredients, and processors of co-product derivatives.

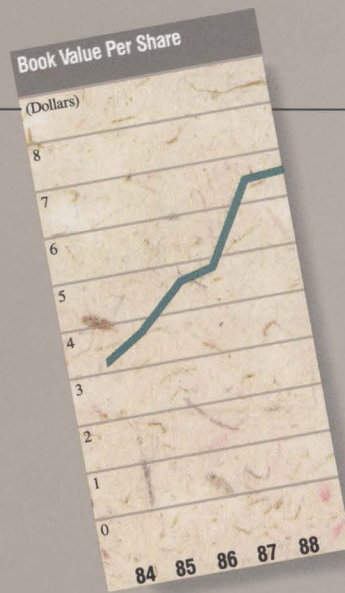
Cash from the divestiture will be used to reduce short-term debt and will be invested in short-term securities until it is needed for acquisitions or for other corporate purposes.

The redeployment of PENWEST's assets will be under the direct supervision of Robert E. Miller, the company's vice president of finance, who joined the company in March 1988. Bob has extensive experience with acquisitions and divestitures while serving as an officer of two major investment banking firms and two Fortune 500 corporations.

Why Sell Great Western? In Great Western Malting we built a successful and widely respected malt supplier to the brewing industry and brought it to its full earnings potential. Indeed, while brewing industry sales have shown essentially no growth for seven years, Great Western's volume increased by 46 percent. Throughout 1987 and 1988 the division operated at capacity.

It became increasingly apparent, however, that Great Western was serving an industry that offered very little long-term opportunity. As the population ages, per-capita consumption of all alcohol beverage products will decline in North America, Europe and Australia. Our projections indicated that the future return on our investment in Great Western Malting would be significantly less than our return from Penford, and less than our objective for the company as a whole. Your management and the board of directors concluded that, consistent with our goal of maximum value growth, the company's investment could be more profitably employed in other ways.

The Year in Review Penford Products grew during the year, with increases in both volume and dollar sales. In order to meet increasing demand, Penford this fall will complete



the largest of four expansions at the Cedar Rapids plant, raising overall capacity by 33 percent. By late May we will have effectively doubled capacity at our Idaho Falls plant which makes chemically modified potato starches for the paper industry.

Penford continues an aggressive new product development effort, strengthening its role as the paper industry's leading supplier of specialty modified starches for coatings and sizings. Two major new product offerings will be announced late in the 1989 fiscal year.

Our customer base broadened, reflecting a vigorous sales and marketing effort. We now sell to about 125 U.S. paper and textile locations. During 1989 Penford will strengthen its sales efforts abroad, especially in Europe, Latin America and the Orient.

Penford also strengthened its customer technical service capability, offering in-plant expertise literally around-the-clock in some cases. This includes a Penford Performance Check (PPC) to insure that a mill is using our products in the most cost-effective manner. PPC reports are generated on the spot using laptop computers for accurate and timely information.

The niche markets which Penford serves remain strong. Shipments of coated papers were up 10 percent in the first eight months of 1988 after gaining 11.3 percent in 1987. Uncoated freesheet shipments have shown more moderate yet still healthy growth for those periods.

One of the worst droughts in U.S. agricultural history ravaged the Midwest during 1988, stunting most of the corn crop and sending corn prices soaring. Although Penford moved aggressively to preserve its profit margins, there was some negative interim pressure as costs rose faster than sell-

ing prices. The effect was softened somewhat by an excellent crop of western malting barley which had been purchased on contract at pre-drought prices.

The company negotiated new labor contracts at three of its four bargaining units. A new three-year contract at Penford's Cedar Rapids plant improves the company's chances of landing some single-source starch business from key customers. Two new contracts at Vancouver are for one year while an existing contract at the Los Angeles malt plant expires in 1990.

Earnings Despite drought-inflated raw materials and chemicals costs, the company earned a record \$9.5 million, or \$1.67 per share, compared with \$9.1 million, or \$1.59 per share, in the prior year. Sales of \$141.7 million were up from \$136 million.

Financial Goals

- PENWEST has aggressive long-term financial performance**
- goals for the five-year period ending in fiscal 1993. The company seeks:**
- A return on average equity of 20 to 25 percent.**
- A 20 percent after-tax return on major capital expenditures.**
- A 15 to 20 percent average growth rate for net profits.**
- Return on capital (interest-bearing debt plus shareholders' equity) of 18 to 25 percent.**

Fourth-quarter earnings of \$2.9 million, or 50 cents per share, were up from last year's \$2.4 million and 40 cents per share. The increase reflected higher profits at Great Western which was unaffected by the Midwest drought. Sales were \$37.8 million, up from \$35 million.

While earnings for the year grew only modestly, there has been no fundamental change in our five-year financial goals which are detailed elsewhere on this page. We do, however, expect current margin pressure at Penford to continue into the first half of fiscal 1989.

Many economists expect a general softening of the economy in 1989 and 1990. Should that occur, we expect only minimal impact on PENWEST's profitability. Historical data show that economic downturns affect so-called brown papers like containerboard and packaging papers more

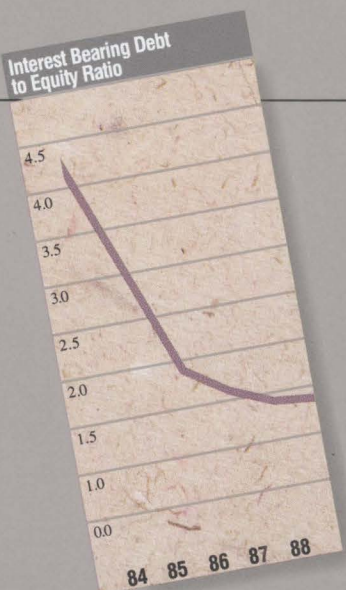
directly than the printing-writing paper segments where Penford enjoys a very strong position. Penford's growth rate has been significantly higher than the industry segments we serve, suggesting that market share gains can provide some insulation from fluctuations in demand. In addition, Penford's products offer quality and productivity improvements that would be especially valued during an industry downturn.

New Directions We have a great deal of confidence in the overall direction of the company as we enter the new fiscal year.

We are in the process of restructuring our asset base for higher returns. There is a growing market for specialty chemical starch products at a time when we are best able to respond with new product innovations. The company has a strong management team with a firm sense of direction, the confidence to publish our goals and the conviction that we can achieve them.

Most important, perhaps, is the fact that we are in step with our customers' needs and expectations. A comprehensive outside study conducted for Penford Products late in fiscal 1988 revealed that our customers overwhelmingly rank product quality as the most important criterion in selecting a supplier. Service and technical support ranked second and third. Price was a distant fifth. The same study disclosed that Penford was regarded as the industry's quality leader, and that the company also ranked first in service and technical support.

The study shows without question that PENWEST's single-minded commitment to our customers' needs for product quality and production efficiency is widely recognized in the paper industry. That commitment, more than any of our other assets, will serve as the foundation for our future.



Tod R. Hamachek President and Chief Executive Officer

A Commitment to Quality and Service.

Penford Products Co. has for decades been the leader in its niche markets because it has placed product quality, innovative solutions, on-time delivery and customer service above all other values. No competitor tries harder or succeeds

more often.

Penford regards its business as a partnership with customers—a partnership whose purpose is to help customers achieve a competitive edge through quality products and service.

The Penford marketing team includes the sales and marketing group, a customer technical service group and a research and development organization. Each is a highly-motivated, customer-oriented unit with an established track record. They also understand that the best solutions to customers' problems are evolving constantly. Half of what Penford will sell in five years is not yet on the market.

Although Penford makes and sells products to the textile, food, pharmaceutical and agricultural industries, most of its sales are to the U.S. paper industry—an industry that has shown sustained growth for the past five years. Penford serves all major American papermakers at more than 100 individual locations.

Each paper mill is different. Paper machines themselves are extremely complex, expensive "factories" that can cost up to \$500 million. They can produce a continuous web of paper 24 feet wide at speeds up to 4,000 feet per minute.

Yet each manufacturer's process is unique, even when the aim is to produce finished paper products of identical properties. Because Penford has special technical expertise to work within these differences, it has retained leadership in two of its niche markets and is rapidly gaining market share in a third.

Penford's traditional products for coated and uncoated freesheet include specially-modified ethylated starches for "sizing," to render the paper sheet more resistant to liquids, and coatings binders which provide smoothness to paper surfaces for high-quality reproduction of images in both color and monochrome.

More recently Penford has made significant gains in cationic starch products for the "wet end" of paper-making, for adding strength to paper fibers.

Penford's products are used primarily by the makers of printing and writing papers, the fastest-growing segment of the industry. These business papers include fine writing papers, office and computer papers, and papers for printing catalogues, magazines, brochures, promotional inserts, books and annual shareholder reports.

For coated papermakers, Penford offers special chemically-modified starches that enhance surface clarity, improve printability on high-speed presses, add external strength and uniform opacity, and impart depth and tone to color.

Improving these characteristics is a continuing challenge. The market is dynamic. Rising quality standards by end-product users in the United States and abroad constantly test Penford's capacity for technical service and product innovation. Aggressive research and development efforts backed by a strong sales and customer technical service team are essential for success.

As an example, Penford has developed a new application for Pencote®, a top-end specialty starch for



coatings which has found a new market in the groundwood specialty market—a market which previously used no starch products. Used in newsprint and catalogues, Pencote answers a need for a surface that is more readable, has better four-color ink holdout, and has fewer loose wood fibers. Penford anticipates a growing demand for this product from advertisers as well as from photo editors. The company has applied for a patent to protect the process.

Penford expanded its specialty paper starch lines to foreign markets during the year, to mills in Mexico, Argentina, Japan and Scandinavia. The division will continue to seek new customers in non-U.S. markets in 1989.

Products for the Textile Industry

Penford is the leading producer of specialty ethylated and oxidized starch products to the U.S. textile industry, an industry which has suffered intense competitive pressures from offshore producers.

Penford sells a line of 15 modified starch products for warp sizing, which is a fiber bonding process for yarn and finished fabric, and fabric sizing, which provides body and stiffness to textiles, especially cotton products like denim.

Like papermakers, textile producers demand high-quality products and services. Penford R & D personnel work closely with customers in the textile industry to develop new products for specific applications. A recent example is Quickwash™, a patented, proprietary Penford product used to size cloth and yarn during manufacturing. It imparts a pre-washed feel to fabrics like denim.

Agricultural Co-Products

Penford markets two categories of co-products.

The traditional co-products of corn wet milling are germ, oil, gluten feed and gluten meal, most of which are sold as animal feed at commodities prices. These products provide a stable revenue stream with modest profit margins.

Of much greater long-term potential to PENWEST are value-added co-product derivatives like Fast Break™ which Penford brought to market



Newsprint

Newspaper publishers and advertisers increasingly demand newsprint that is more readable and has better four-color ink hold-out. In response to that demand, Penford developed an entirely new market in 1988 by introducing an existing product to an industry that previously used no starch products. A major paper mill now uses Pencote® to create a better printing surface for newsprint. There is a very large, untapped market for the product's use in this application.



Textile

Textile-makers use specially-modified Penford starches to bond fibers and provide body and stiffness to fabrics. Penford, which is the leading U.S. supplier of ethylated and oxidized starches for the domestic textile industry, develops and markets products for specific applications. The company's most recent brand, Quickwash™, imparts a pre-washed feel to fabrics like denim.

Co-Products

Commercially-cultivated mushrooms grow faster and have better yields when treated with Fast Break®, a Penford-developed plant nutrient made from corn co-products. Value-added derivatives like Fast Break hold considerable long-term potential for PENWEST. They carry higher margins than commodity-type by-products and deliver measurable results to customers.



Food and Pharmaceuticals

Candy, tableted medicines, powdered drink mixes and low-calorie sweeteners contain special Penford products that encapsulate flavor or provide bulk and shape. Food and food-related businesses are logical extensions of Penford's basic business, and represent one area of interest for PENWEST's acquisition plans.



last year. Fast Break is a patented protein nutrition supplement that accelerates the growing cycle and yield of commercially-harvested mushrooms. Field trials have been impressive, with dramatic bottom-line results for growers.

Penford research and development teams are exploring other value-added co-product opportunities that may have sales potential in agricultural, food or pharmaceutical markets.

Food and Pharmaceuticals

Penford also produces premium specialty products for the food, confectionery and pharmaceutical industries.

Soludex® is a compacted maltodextrin with two uses: it is a bulking agent for powdered drink mixes, coffee whiteners, bouillon cubes and artificial sweeteners, and it is used as a medium to encapsulate flavor. Soludex flows well in high-speed packaging, which makes it attractive to manufacturers, and disperses quickly in liquids, which pleases consumers.

Cantab®, which has been a part of the product line for a number of years and has a strong market position, is a sugar product with some of the same applications as Soludex. Because it compacts well, it is used extensively by candymakers and the manufacturers of tableted medicines. Cantab also is chosen for fruit and cereal dusting and as a bulking agent for low-calorie sweeteners like Equal®, a product of The NutraSweet® Company. A major U.S. confectioner has committed to using Cantab in a new line of breath mints next year.

Although the brand has several competitors, Penford believes that Cantab will hold its market share because it flows better in high-speed packaging, is more soluble than competitive products and enjoys a reputation as having the highest quality and consistency standards in the industry.

Penford regards food and food-related businesses as logical extensions of its basic business and technology, and is reviewing possible acquisition opportunities in these areas.

Financial Review

Management's Discussion and Analysis of Financial Condition and Results of Operations

Comparison of Fiscal 1988 to 1987 Results

1988 was another year of record profitability for PENWEST. Sales increased by \$5.7 million, largely due to continued emphasis on higher margin products. There was little change in total volume sold. The Midwestern drought caused a significant increase in corn prices, which in turn led to higher sales prices for our products.

Net income totalled \$9.5 million, an increase of 4 percent from the prior year. The gross margin declined to 22.4 percent from 24.8 percent in 1987. Gross margins declined at both Great Western and Penford. In the case of Great Western, the decline was caused by lower sales of premium two-row malted barley, and higher raw material, transportation and energy costs. Penford was impacted by significant increases in raw material prices, especially of corn and chemicals. Penford supplies certain customers based on annual contracts. Until these contracts are renegotiated at maturity, not all of these increased costs can be reflected in our sales prices.

Operating expenses increased by under 3 percent to \$13.3 million. We are continuing to fund an aggressive research and development program and maintain strong cost controls.

Interest expense in 1988 was \$3,985,000, down 1 percent from 1987. Although the average outstanding debt was larger during the year, the effect on interest expense was offset by a lower average interest rate. Total debt outstanding increased to \$52,515,000 at year end from \$42,276,000 last year.

The Tax Reform Act of 1986 had a full year's effect on PENWEST in 1988. PENWEST's effective tax rate in 1988 was 33.8 percent compared to 45.3 percent in 1987.

We announced during the fourth quarter that substantially all of PENWEST's malting assets went on sale. This process is continuing. We plan to deploy the proceeds from the sale into Penford Products Co. and similar businesses.

Comparison of Fiscal 1987 to 1986 Results

Record profitability was achieved on a \$1 million increase in sales. Both the Great Western Malting and Penford Products units showed increasing volume. Malting unit volume increased 14 percent to reach record levels but lower selling prices resulted in the modest sales dollar gain. Demand for Penford's specialty chemical starch products remained strong throughout the year. This demand enabled the unit to achieve record specialty product volume.

Earnings totaled \$9.1 million, more than twice the preceding year's level. The earnings gain continues to reflect the company's concentration on high-margin, specialty carbohydrate chemical products, and food and flavor ingredients. Effectively, PENWEST is out of the commodities business. The improved gross margin is the clearest example of this strategy taking effect. The gross margin percentage improved to 24.8 percent from 17.7 percent. This gain is the result of PENWEST's businesses concentrating on specialty products which are sold on quality and value-added characteristics rather than on price.

Operating expenses increased \$2.8 million to \$13.0 million. Increased expenditures were made in support of an aggressive marketing campaign and in research and development activities. Increased emphasis has been placed on both of these areas in support of the overall direction to sell specialty products. In addition, incentive compensation based on financial performance increased operating expenses.

Interest expense continued to decline during the year. Interest expense totaled \$4.0 million, down nearly \$1.6 million from 1986. The decrease was achieved even though \$7 million of additional borrowings were added to finance the purchase of a previously outstanding warrant. Cash flow remained strong throughout the year enabling the additional borrowings to be repaid. In addition, PENWEST re-negotiated certain credit line terms which lowered average interest rates. The combination of these factors resulted in the interest expense reduction.

The effective income tax rate was 45.3 percent in 1987 versus 47.2 percent in 1986. The lower rate reflects two month's impact of the effects of the Tax Reform Act of 1986.

Liquidity and Capital Resources

PENWEST has variations in grain inventory levels during the year, particularly related to its malt operations. Most barley purchases are made in the late summer and fall following harvest. Inventories increased by \$10.8 million compared to August 31, 1987. Most of the increase is attributable to higher prices paid for barley this year with a lesser amount due to earlier harvesting in certain growing regions. Although Penford historically operates with minimal inventories, the significant increase in corn prices caused their inventory valuation to rise.

Accounts receivable increased by 25 percent from last year due to higher selling prices in the fourth quarter.

Plant and equipment expenditures were \$14.7 million during 1988. Expansions are in process at Vancouver, Cedar Rapids and Idaho Falls and will be completed during fiscal 1989. A new issue of Industrial Revenue Bonds was sold in December to finance the expansion in Vancouver.

PENWEST began to pay income taxes on a current basis in 1988. Payments totalled \$12 million, including nearly \$6 million due for 1987. In the past, income tax loss carry forwards were sufficient to offset any current liability.

Financing for these changes was obtained from net income, depreciation, borrowings on the revolving credit agreement and the issuance of bonds.

In the nearly five years since spin off, PENWEST reduced its interest-bearing debt from \$98.9 million to \$52.5 million at August 31, 1988. This reduction was accomplished with the benefit of strong operating results accompanied by aggressive

operating and financial management. While borrowings increased \$10 million from a year ago, the debt-to-equity ratio has decreased to 1.46 from 1.53.

In December, 1987, the FASB issued Statement No. 96 "Accounting for Income Taxes" (Statement No. 96), adopting the liability method of accounting for deferred income taxes. Statement No. 96 must be adopted by PENWEST no later than the fiscal year ending August 31, 1991. Deferred taxes will be adjusted to reflect federal income tax rates in effect at the time of adoption. Should the tax rates remain at present levels, the gain from adoption would range from \$4 million to \$6 million, depending on the year of adoption. Most of the gain is based on deferred taxes generated by Great Western Malting Co. In the event of a sale of Great Western, the gain would be recognized as part of the sale, rather than as a gain due to adoption of Statement No. 96.

The effect of inflation on the company's operations during fiscal 1988 was negligible. Although much of our physical plant was built more than 10 years ago, frequent expansions and an effective maintenance program have kept economic obsolescence to a minimal level. Replacement cost, however, would be substantially in excess of recorded values. PENWEST's operations were impacted by significantly higher raw material costs during 1988. We responded to these pressures by adjusting prices charged to our customers.

Consolidated Balance Sheets

August 31 (Thousands of dollars)	1988	1987
<i>Assets</i>		
<i>Current assets:</i>		
Cash and equivalents	\$ 201	\$ 1,581
Trade accounts receivable	15,407	12,290
Inventories	39,121	28,326
Prepaid expenses and other	920	919
<i>Total current assets</i>	55,649	43,116
<i>Property, plant and equipment:</i>		
Land	1,384	1,128
Plant and equipment	147,119	133,010
Less accumulated depreciation	(63,741)	(56,721)
<i>Net property, plant and equipment</i>	84,762	77,417
<i>Other assets</i>	831	701
	\$141,242	\$121,234
<i>Liabilities and shareholders' equity</i>		
<i>Current liabilities:</i>		
Accounts payable	\$ 23,456	\$ 13,573
Current portion of long-term debt	3,059	2,529
Income taxes		5,572
Accrued liabilities	4,375	5,453
<i>Total current liabilities</i>	30,890	27,127
<i>Revolving credit agreement</i>	8,775	
<i>Long-term debt</i>	40,681	39,747
<i>Deferred income taxes and other</i>	25,167	26,693
<i>Shareholders' equity:</i>		
Common stock	5,615	5,591
Additional paid-in capital	11,761	11,729
Retained earnings	19,754	10,347
Treasury stock	(1,401)	
<i>Total shareholders' equity</i>	35,729	27,667
	\$141,242	\$121,234

The accompanying notes are an integral part of these statements.

Consolidated Statements of Income

(Thousands of dollars)	Year Ended August 31		
	1988	1987	1986
Sales	\$141,682	\$135,990	\$134,809
Cost of sales	109,946	102,321	111,001
Gross margin	31,736	33,669	23,808
Operating expenses	13,325	12,963	10,181
Income from operations	18,411	20,706	13,627
Interest expense	3,985	4,025	5,576
Income before taxes	14,426	16,681	8,051
Income taxes	4,881	7,548	3,798
Net income	\$ 9,545	\$ 9,133	\$ 4,253

Earnings per common share and common share equivalent:

Primary	\$1.67	\$1.62	\$0.67
Fully diluted	\$1.67	\$1.59	\$0.65

Weighted average common shares and equivalents:

Primary	5,711,133	5,653,934	6,306,432
Fully diluted	5,728,298	5,753,727	6,503,054

The accompanying notes are an integral part of these statements.

Consolidated Statements of Cash Flows

(Thousands of dollars)	1988	Year Ended August 31 1987	1986
<i>Operating Activities:</i>			
Net income	\$ 9,545	\$ 9,133	\$ 4,253
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	7,262	6,772	6,565
Deferred income taxes	(1,400)	1,761	3,459
Other	(256)	(265)	(706)
Change in assets and liabilities:			
Receivables	(3,117)	2,584	105
Inventories	(10,795)	(5,307)	771
Other current assets	(1)	11	166
Accounts payable and other current liabilities	3,233	4,901	1,113
Net cash provided by operating activities	4,471	19,590	15,726
<i>Investing Activities:</i>			
Additions to plant and equipment	(14,673)	(6,355)	(2,965)
Other	66	(121)	22
Net cash used by investing activities	(14,607)	(6,476)	(2,943)
<i>Financing Activities:</i>			
Proceeds under revolving credit agreement	8,775		
Proceeds from long-term debt	4,100		
Payments on long-term debt	(2,636)	(5,910)	(16,003)
Purchase of treasury stock	(1,401)		
Exercise of stock options	56	62	4
Redemption of shareholder rights	(138)		
Purchase of warrant		(7,100)	
Net cash provided by (used by) financing activities	8,756	(12,948)	(15,999)
Net increase (decrease) in cash	(1,380)	166	(3,216)
Cash and equivalents at beginning of year	1,581	1,415	4,631
Cash and equivalents at end of year	\$ 201	\$ 1,581	\$ 1,415
<i>Supplemental disclosure of cash flow information—cash paid during the year for:</i>			
Interest (Net of capitalized interest)	\$ 3,950	\$ 4,025	\$ 6,239
Income taxes	11,983	373	217

The accompanying notes are an integral part of these statements.

Consolidated Statements of Shareholders' Equity

(Thousands of dollars)	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Total Shareholders' Equity
<i>Balances, September 1, 1985:</i>	\$2,770	\$11,689	\$ 6,856		\$21,315
Net income			4,253		4,253
Exercise of stock options	4				4
<i>Balances, August 31, 1986:</i>	2,774	11,689	11,109		25,572
Net income			9,133		9,133
Retirement of warrant			(7,100)		(7,100)
Exercise of stock options	22	40			62
100% stock split	2,795		(2,795)		
<i>Balances, August 31, 1987:</i>	5,591	11,729	10,347		27,667
Net income			9,545		9,545
Exercise of stock options	24	32			56
Redemption of shareholders' rights			(138)		(138)
Purchase of treasury stock				\$(1,401)	(1,401)
<i>Balances, August 31, 1988:</i>	\$5,615	\$11,761	\$19,754	\$(1,401)	\$35,729

The accompanying notes are an integral part of these statements.

Notes to Consolidated Financial Statements

Note A

Summary of Significant Accounting Policies

Consolidation

The consolidated financial statements include PENWEST and its wholly-owned subsidiaries. Material intercompany balances and transactions have been eliminated.

Cash and Equivalents

PENWEST's cash management system operates so that a cash overdraft for uncleared checks exists in the disbursing accounts. Cash and equivalents in the accompanying balance sheets represent amounts yet to be transferred to the disbursing accounts. Uncleared checks of \$5,314,000 and \$2,829,000 are included in accounts payable at August 31, 1988 and 1987, respectively. PENWEST considers all liquid investments with maturities less than three months to be cash equivalents.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Expenditures for maintenance and repairs are expensed as incurred. The company uses the straight-line method to compute depreciation for financial reporting purposes. For income tax purposes, the company generally uses accelerated depreciation methods.

Interest is capitalized on major construction projects while in progress. Interest of \$350,000 and \$132,000 was capitalized during the fiscal years ended August 31, 1988 and 1987, respectively. No interest was capitalized in 1986.

Statement of Cash Flows

PENWEST has elected early adoption of FASB Statement No. 95, "Statement of Cash Flows." Amounts previously reported in the Consolidated Statements of Changes in Financial Position for 1987 and 1986 have been restated accordingly.

Income Taxes

Deferred income taxes are provided on timing differences between financial and income tax reporting methods. Investment tax credits were accounted for by the flow through method as a direct reduction of the current federal income tax provisions.

Earnings Per Share

Earnings per common share and common share equivalents were computed by dividing net income by the weighted average number of common shares and dilutive common share equivalents outstanding during the period (for primary and fully diluted). Outstanding stock options and the warrant (for 1986) are considered to be common share equivalents.

Segment Information-Major Customer

PENWEST's single business segment is manufacturing specialty, value-added carbohydrate-based products. One customer accounted for sales of \$67,671,000, \$68,505,000, and \$63,093,000 in 1988, 1987, and 1986, respectively.

Note B

Inventories

Inventories are stated at the lower of cost or market. Cost, which includes material, labor and manufacturing overhead costs, is determined by the first-in, first-out (FIFO) method.

Inventories consist of:

August 31 (Thousands of dollars)	1988	1987
Raw materials, supplies and other	\$ 27,781	\$ 17,912
Work in progress	1,760	1,248
Finished goods	9,580	9,166
Total inventories	\$ 39,121	\$ 28,326

Note C

Long-term Debt and Revolving Credit Agreement

The long-term debt of the company and its subsidiaries is as follows:

August 31 (Thousands of dollars)	1988	1987
10.75 percent secured note, payable in monthly installments of \$202,230, including interest to 2001	\$19,310	\$19,616
9.00 percent secured note, payable in monthly installments of \$180,000, including interest to 1998	14,195	15,036
8.75 percent mortgages, three of which are payable in monthly installments totalling \$132,600 through 1990, including interest, and three of which are quarterly interest-only payments, with final maturity in 1990	6,270	7,624
8.20 percent Industrial Revenue Bonds, payable in semiannual installments of \$140,000 to \$220,000, plus interest, with remaining principal due in 1995	3,965	
	43,740	42,276
Less current portion	3,059	2,529
Net long-term debt	\$40,681	\$39,747

The 8.75 percent mortgages are guaranteed by Univar Corporation. The 10.75 percent and 9 percent promissory notes carry a combined maximum guarantee by VWR Corporation of \$15,000,000. Substantially all property, plant, and equipment collateralize the above notes, mortgages and revenue bonds.

In connection with the Industrial Revenue Bonds, funds totalling \$1,146,000 are invested through a trustee and restricted for use in the Vancouver plant expansion. These funds are shown on the balance sheet as part of plant and equipment.

Maturities of long-term debt for the fiscal years ending August 31, 1989 through 1993 are as follows:

(Thousands of dollars)

1989	\$ 3,059
1990	15,303
1991	1,901
1992	2,086
1993	971

The company has an unsecured revolving line of credit of \$22 million with three banks which expires on May 31, 1990. Borrowing rates available to the company under the revolver are at prime rate or less depending on the selection of borrowing options. PENWEST can elect to borrow under a prime rate option, certificate of deposit option, or Bankers' Acceptance option. Borrowings under the revolving credit agreement can be converted, at the option of PENWEST, to term notes due on the expiration date of the revolving credit agreement. The following relates to the company's borrowings under the revolver for the three years ended August 31, 1988.

	1988	1987	1986
Maximum amount outstanding	\$15,425,000	\$14,950,000	\$9,525,000
Average amount outstanding	7,159,000	6,208,000	1,056,000
Weighted average interest rate	8.58%	8.06%	8.89%

The revolving credit agreement includes, among other terms, various limitations on long-term indebtedness, minimum net worth and working capital ratios, and restrictions on PENWEST's ability to purchase or redeem its own stock. Under the most restrictive of these terms, minimum net worth at August 31, 1988, must be at least \$31,372,000. The term of this agreement is extended on an annual basis unless the commitments are withdrawn. If any bank withdraws, reduction of its commitment can be accomplished in four equal quarterly reductions commencing approximately one year after notice of election to withdraw.

Note D Stock Options

Under stock option plans, options have been granted to certain officers and key employees to purchase PENWEST common stock. Changes in stock options for the three years ended August 31, 1988 are as follows:

	1988	1987	1986	1988 Option Price Range
Outstanding at beginning of year	582,600	163,000	156,000	\$ 3.13-13.25
Granted	73,330	474,200	23,000	18.00-19.13
Exercised	(28,076)	(52,200)	(12,800)	3.13- 8.75
Cancelled	(73,730)	(2,400)	(3,200)	3.13-13.25
Outstanding at end of year	554,124	582,600	163,000	\$ 3.13-19.13
Exercisable at end of year	48,298	32,000	48,000	\$ 3.13-18.75

At August 31, 1988, 62,200 stock appreciation rights (SARs) were outstanding to certain officers under related stock option grants. The SARs were granted in December 1986 and April 1988 at the market price of PENWEST stock. As a result of appreciation and vesting of the SARs, \$30,000 and \$192,000 was charged to expense to 1988 and 1987, respectively. The SARs vest over a five-year period from the date of grant.

Note E
Income Taxes

Income tax expense consists of the following:

(Thousands of dollars)	Year Ended August 31		
	1988	1987	1986
<i>Current</i>			
Federal	\$ 5,692	\$ 5,146	
State	589	641	\$ 339
	6,281	5,787	339
<i>Deferred</i>			
Federal	(1,380)	1,779	3,459
State	(20)	(18)	
	(1,400)	1,761	3,459
<i>Total provision</i>	\$ 4,881	\$ 7,548	\$3,798

The sources of timing differences resulting in deferred income taxes and the tax effect of each consisted of the following:

(Thousands of dollars)	Year Ended August 31		
	1988	1987	1986
Depreciation	\$(1,728)	\$(1,090)	\$2,143
Other	328	137	90
Reinstatement due to net operating loss and tax credit carry forward		2,714	1,226
<i>Total deferred provision</i>	\$(1,400)	\$ 1,761	\$3,459

Reconciliation of the statutory federal tax to the actual provision is as follows:

(Thousands of dollars)	Year Ended August 31		
	1988	1987	1986
Statutory rate	34 %	44 %	46 %
Statutory tax	\$4,905	\$7,340	\$3,703
State income taxes, net of federal tax benefit	375	349	183
Timing differences reversing at non-originating rate	(320)		
Other	(79)	(141)	(88)
<i>Total provision</i>	\$4,881	\$7,548	\$3,798

FASB No. 96

In December 1987, the FASB issued Statement No. 96 "Accounting for Income Taxes", adopting the liability method of accounting for deferred income taxes. Statement No. 96 must be adopted by PENWEST no later than the fiscal year ending August 31, 1991. Under the provisions of Statement No. 96, PENWEST may recognize the impacts of adoption by recording the prior years' cumulative effect of the new rules entirely in the year of adoption or by restating all financial statements presented. Deferred taxes will be adjusted to reflect federal income tax rates in effect at the time of adoption. Should the tax rates remain at present levels, the gain from adoption would range from \$4 million to \$6 million, depending on the year of adoption. Most of the gain is based on deferred taxes generated by Great Western Malting Co. In the event of a sale of Great Western, the gain would be recognized as part of the sale, rather than as a gain due to adoption of Statement No. 96.

Note F

Pension and Other Employee Benefits

PENWEST maintains two pension plans that cover substantially all employees in noncontributory defined benefit pension plans except for employees covered by independently operated collective bargaining plans.

Benefits under the plan for hourly employees are primarily related to years of service. Benefits for salaried employees are primarily related to years of credited service and final average five-year earnings. Employees generally become eligible to participate in the plans after attaining age 21 and benefits normally become vested after 10 years of credited service.

The company's funding policy is to contribute amounts to the plans sufficient to meet or exceed the minimum requirements of the Employee Retirement Income Security Act. Effective September 1, 1987 PENWEST adopted certain required provisions of Statement of Financial Accounting Standards No. 87, "Employers' Accounting for Pensions," for both pension plans. Adoption of this statement had a minimal effect on fiscal 1988 pension expense and did not affect the actuarial assumptions or methods used to determine funding policy.

Statement No. 87 does not provide for retroactive application of the new standards; therefore, prior years' earnings have not been restated and the cumulative effect of the changes has not been recognized.

Net periodic pension expense for 1988 consisted of the following:

Service cost of benefits earned during the year	\$ 243,000
Interest cost on projected benefit obligation	1,026,000
Actual return on plan assets	326,000
Net amortization and deferral	(893,000)
<i>Net pension expense</i>	<i>\$ 702,000</i>

Total pension expense in 1987 and 1986 was \$1,134,000 and \$726,000 respectively.

Assumptions used in the accounting for pension plan expense in 1988 included a discount rate of 9.59 percent, a rate of increase in compensation levels of 6 percent for the salaried employees, and an expected long-term rate of return on plan assets of 8 percent to 9 percent.

The following table sets forth the funded status of both pension plans as of August 31, 1988:

<i>Plans with an Obligation in Excess of Assets</i>	
Actuarial present value of projected obligation, based on service to date and current salary levels:	
Vested	\$10,359,000
Nonvested	303,000
<i>Accumulated benefit obligation</i>	<i>10,662,000</i>
Effect of projected salary increases	737,000
<i>Projected benefit obligation</i>	<i>11,399,000</i>
Plan assets at fair market value	8,296,000
<i>Projected benefit obligation greater than plan assets</i>	<i>(3,103,000)</i>
Unrecognized net gain	874,000
Balance of unrecognized net obligation at transition being amortized over 15 years	2,028,000
<i>Net pension liability included in accrued liabilities</i>	<i>\$ (201,000)</i>

Assets of the pension plans are invested in units of common trust funds managed by Frank Russell Trust Company. The common trust funds own stocks, bonds and real estate.

Actuarial present value of accumulated plan benefits for the defined benefit pension plans at August 31, 1987 (prepared in accordance with Statement No. 35) was \$10,157,000. Vested benefits were \$9,941,000 and the plans' net assets available for benefits were \$8,489,000.

Certain employees are covered under multi-employer defined benefit pension plans. Expenses for these plans were \$282,000 in 1988, \$229,000 in 1987, and \$255,000 in 1986.

Provisions of the Multi-Employer Pension Amendments Act of 1980 require participating employers to assume a proportionate share of multi-employer plans unfunded vested benefits in the event of withdrawal from or termination of

the plan. Information concerning the company's share of unfunded vested benefits is not available from the plan administrator. Provisions of the Act may have the effect of requiring increased contributions in future years.

Note G

Shareholders' Equity

Common Stock

PENWEST's common stock has a par value of \$1.00 per share and 9,000,000 shares are authorized. At August 31, 1988 and 1987, there were 5,615,016 and 5,590,996 shares outstanding, respectively.

Treasury Stock

Treasury stock is shown at cost and represents 88,390 shares of common stock.

Unissued Preferred Stock

There are 1,000,000 shares of \$1.00 par value preferred stock authorized for issue; however, none are outstanding.

Common Stock Purchase Rights

On June 16, 1988, PENWEST, LTD. distributed a dividend of one right ("Right") for each outstanding share of PENWEST common stock. In addition, previously outstanding Rights were redeemed for \$0.025 each. When exercisable, each Right will entitle its holder to buy one share of PENWEST's stock at \$66.00 per share. The Rights will become exercisable if a purchaser acquires 20 percent of PENWEST's common stock or makes an offer to acquire common stock. In the event that a purchaser acquires 20 percent of the common stock of PENWEST, each Right shall entitle the holder, other than the acquirer, to purchase one share of common stock of PENWEST for one half of the market price of the common stock. In the event that PENWEST is acquired in a merger or transfers 50 percent or more of its assets or earnings to any one entity, each Right entitles the holder to purchase common stock of the surviving or purchasing company having a market value of twice the exercise price of the Right. The Rights may be redeemed by PENWEST at a price of \$.01 per Right and they expire in June, 1998.

Note H

Proposed Sale of Malting Assets

The company, as announced in June, is exploring the sale of its malting assets. As of year-end, no binding agreements were in effect. Should a sale be consummated, PENWEST expects to realize a substantial gain; however, the amount of the gain cannot be estimated at this time. Financial statements issued after the sale date will account for the sale as a discontinued operation. Earlier periods presented in the financial statements will be restated.

Note I
Quarterly Financial Data (Unaudited)

(Thousands of dollars except earnings per share data)	Sales	Gross Margin	Net Income	Fully Diluted EPS
<i>1987/88</i>				
First Quarter	\$ 33,990	\$ 8,525	\$2,764	\$0.48
Second Quarter	33,763	7,049	1,635	0.29
Third Quarter	36,109	7,414	2,263	0.40
Fourth Quarter	37,820	8,748	2,883	0.50
<i>Total</i>	<i>\$141,682</i>	<i>\$31,736</i>	<i>\$9,545</i>	<i>\$1.67</i>
<i>1986/87</i>				
First Quarter	\$ 30,543	\$ 6,492	\$1,375	\$0.24
Second Quarter	35,268	9,189	2,381	0.41
Third Quarter	35,207	9,270	3,025	0.54
Fourth Quarter	34,972	8,718	2,352	0.40
<i>Total</i>	<i>\$135,990</i>	<i>\$33,669</i>	<i>\$9,133</i>	<i>\$1.59</i>
<i>1985/86</i>				
First Quarter	\$ 31,744	\$ 4,958	\$ 634	\$0.10
Second Quarter	32,576	5,613	754	0.12
Third Quarter	35,427	6,103	1,188	0.18
Fourth Quarter	35,062	7,134	1,677	0.25
<i>Total</i>	<i>\$134,809</i>	<i>\$23,808</i>	<i>\$4,253</i>	<i>\$0.65</i>

Report of Independent Auditors

Board of Directors and Shareholders
PENWEST, LTD.
Bellevue, Washington

We have audited the consolidated balance sheets of PENWEST, LTD. and subsidiaries as of August 31, 1988 and 1987, and the related consolidated statements of income, shareholders' equity, and cash flows for each of the three years in the period ended August 31, 1988. 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 have conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of PENWEST, LTD. and subsidiaries at August 31, 1988 and 1987, and the consolidated results of their operations and their cash flows for each of the three years in the period ended August 31, 1988 in conformity with generally accepted accounting principles.

Ernst & Whinney

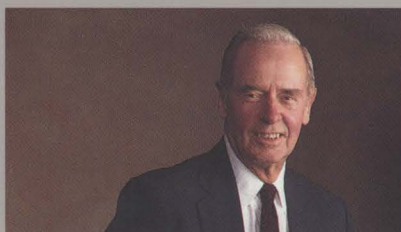
Seattle, Washington
 October 7, 1988

Directors

Board of Directors



Richard E. Engebrecht, President and Chief Executive Officer VWR Corporation; formerly President and Chief Operating Officer, Executive and Senior Vice President of Univar; Director of Eldec Corporation, Univar, VWR and Puget Sound Bancorp.



Russell E. Hamachek, Retired Vice President, Univar Corporation and Retired President/Chief Executive Officer, Great Western Malting Co.



Tod R. Hamachek, President and Chief Executive Officer of PENWEST; formerly President of Great Western Malting Co., and Senior Vice President of Univar; Director of Northwest Natural Gas Company, and First Interstate Bank of Washington, N.A.



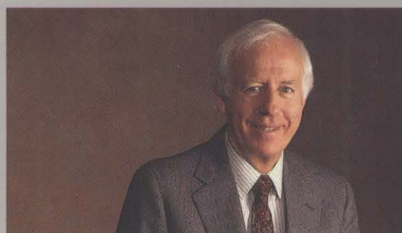
C. Calvert Knudsen, Vice Chairman and Director, MacMillan Bloedel Ltd.; Director of Safeco Insurance Company, Rainier National Bank, Cascade Corporation, Portland General Corporation, Security Pacific Corporation, Security Pacific National Bank.



Curtis P. Lindley, Chairman of the Board, PENWEST; formerly Chief Executive Officer, PENWEST, Executive and Senior Vice President of Univar; Director of Univar Corporation and VWR Corporation.



N. Stewart Rogers, Senior Vice President-Finance of Univar Corporation; Director of John Fluke Manufacturing Company, Inc., VWR Corporation and U.S. Bancorp.



William K. Street, President of The Ostrom Company; Director of Univar Corporation, VWR Corporation, and HPS Biotechnologies.



James H. Wiborg, Chairman and Chief Strategist of each Univar and VWR; formerly Chairman and Chief Executive Officer of Univar; Director of VWR, Seafirst Corporation, Seattle-First National Bank, PACCAR, Inc., and Univar.



F. Lowry Wyatt, Consultant and Retired Senior Vice President, Weyerhaeuser Company; Director of AgriNorthwest, Inc., First Interstate Bank of Washington, N.A., American Savings Bank, Univar and VWR.

Committees, Officers and Headquarters

Executive Committee

James H. Wiborg, Chairman
 Tod R. Hamachek
 C. Calvert Knudsen
 Curtis P. Lindley
 N. Stewart Rogers

Audit/Pension Committee

N. Stewart Rogers, Chairman
 Richard E. Engebrecht
 Russell E. Hamachek
 William K. Street

Compensation Committee

F. Lowry Wyatt, Chairman
 C. Calvert Knudsen
 William K. Street
 James H. Wiborg

Officers and Management

Tod R. Hamachek, President and
 Chief Executive Officer

Robert E. Miller, Vice President
 Finance

Franklin E. Olsen, Jr., Vice Presi-
 dent Employee Relations

H. Thomas Reed, President and Gen-
 eral Manager of Penford Products
 Co.

Robert G. Widmaier, Vice President
 Technical Director

Jeffrey T. Cook, Treasurer

Ronald B. Vogel, Executive Vice
 President and General Manager of
 Great Western Malting Co.

Bradley A. Wiens, Controller

PENWEST

Corporate Headquarters
 777 - 108th Avenue N.E. Suite 2390
 Bellevue, WA 98004, (206) 462-6000

PENFORD PRODUCTS Co.

Division Headquarters
 1001 First Street S.W.
 Cedar Rapids, IA 52404

1088 W. Sunnyside Road
 Idaho Falls, ID 83402

GREAT WESTERN MALTING Co.

Division Headquarters
 Foot of West 11th St., P.O. Box 1529
 Vancouver, WA 98660

5945 South Malt Avenue
 Los Angeles, CA 90040

1666 Kraft Road
 Pocatello, ID 83204

General Information

Form 10-K

The company files an annual report with the Securities and Exchange Commission on Form 10-K, pursuant to the Securities and Exchange Act of 1934. Shareholders may obtain a copy of this report without charge by writing:

Bradley A. Wiens, Controller
PENWEST
777-108th Avenue NE, Suite 2390
Bellevue, WA 98004

Transfer Agent and Registrar

First Interstate Bank of California
Corporate Trust
P.O. Box 54261
Los Angeles, CA 90054

Legal Counsel

Shidler McBroom Gates & Lucas
999 Third Ave., Suite 3500
Seattle, Washington 98104

Investor Relations Counsel

Corporate Communications, Inc.
200 West Mercer, Suite 412
Seattle, Washington 98119
(206) 282-1771

Kekst and Company
437 Madison Avenue
New York, NY 10022
(212) 593-2655

Auditors

Ernst & Whinney
999 Third Ave., Suite 3300
Seattle, Washington 98104

Annual Meeting

1:30 p.m. Tuesday, February 14, 1989
William E. Allen Auditorium
Museum of Flight
East Marginal Way South, Seattle, WA

Stock Price Data

Traded National Over-The-Counter
NASDAQ Symbol: PENW

	Market Price	
	High	Low
<i>1985/86</i>		
Quarter Ended November 30	5 1/4	4 1/2
Quarter Ended February 28	6 3/4	5 1/4
Quarter Ended May 31	8 1/8	6 3/8
Quarter Ended August 31	8 5/8	7 1/2
<i>1986/87</i>		
Quarter Ended November 30	8 7/8	7 7/8
Quarter Ended February 28	13 1/4	7 7/8
Quarter Ended May 31	18 1/4	11 7/8
Quarter Ended August 31	29 1/2	17
<i>1987/88</i>		
Quarter Ended November 30	25 1/4	12 1/2
Quarter Ended February 29	20 1/2	13 1/4
Quarter Ended May 31	21 1/4	13 3/4
Quarter Ended August 31	20 1/4	14

The number of common shareholders of record as of October 25, 1988 was 2,139. See Note C to Consolidated Financial Statements for information regarding restrictions on dividends. Market prices are adjusted for the 1987 stock split.



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98004