# THE LUBRIZOL CORPORATION 1999 ANNUAL REPORT

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## Honoring the Past...
## Envisioning the Future

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## Honoring the Past...

Lubrizol was founded by six men with a good idea, an idea that set the stage for every Lubrizol product that followed. From the beginning, we recognized a problem, used technology to solve it and developed a product that was better than anything else available. Then, we found a way to make it easy for our customers to use. The result of that first idea was a product called Lubri-Graph. Designed to eliminate the squeak caused by the leaf springs in early model cars, it was sold with a 10-gallon pressurized drum dispenser that made it easy to apply. That combination of chemicals and equipment was our first performance system. Lubrizol continued to grow, expanding globally and into new product areas. Today, Lubrizol is a $1.7 billion fluid technology company concentrating on high performance chemicals, systems and services for industry and transportation. Our future success is based on the most valuable lesson of our past. Whatever the industry, whatever the application, we use technology to solve problems, develop the best product or system available and dedicate our efforts to reducing the burden on our customers.

## Envisioning the Future

We begin a new century by redefining Lubrizol. Tomorrow's company will be different from the one we know today. That's the way it should be. The chemicals, services and systems our customers will need for the future are being designed right now by some of the best minds in the industry. Lubrizol products can be found in a variety of markets, including coatings, inks, compressor lubricants and metalworking fluids. We're also combining the expertise of our equipment-related businesses with chemicals for transportation and industry to provide integrated solutions for lubrication or environmental problems. Throughout much of our history, the words Lubrizol product have been synonymous with chemical additive. Over the years, as we've put chemistry to work for us, we've gained a unique understanding of research, testing and equipment. As a company, we've developed new ways to manufacture and distribute products around the globe. We know how to combine components to solve problems. And we understand that, while each of these elements is important, what really matters is how they work together. We've moved beyond additive chemistry to fluid technology, a concept that will characterize Lubrizol products for the next century. Redefining a company isn't easy. Changing the way you think about yourself never is. Fortunately, we're ready. With the solid foundation of our past, hard work here in the present and innovative thinking about our future, we're more than equal to the challenge.

# The Lubrizol Corporation

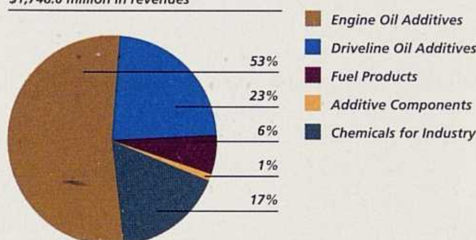
## Financial Highlights

| (In Millions Except Per Share and Employee Data) | 1999 | 1998 | Increase (Decrease) |
|---|---|---|---|
| **OPERATIONS:** | | | |
| Revenues | $1,748.0 | $1,617.9 | 8% |
| Net income | 123.0 | 71.2 | 73% |
| Net income before special charges and litigation gains | 125.3 | 86.5 | 45% |
| Net income per share | 2.25 | 1.27 | 77% |
| Net income per share before special charges and litigation gains | 2.30 | 1.55 | 48% |
| Dividends per share | 1.04 | 1.04 | |
| Cash provided from operating activities | 289.0 | 155.2 | 86% |
| Return on shareholders' equity before special charges and litigation gains | 16% | 11% | |
| **FINANCIAL POSITION:** | | | |
| Total assets | $1,682.4 | $1,643.2 | 2% |
| Shareholders' equity | 790.1 | 769.1 | 3% |
| Debt as a percent of capitalization | 34% | 36% | |
| **OTHER:** | | | |
| Capital expenditures | $ 64.9 | $ 93.4 | (31%) |
| Shares outstanding at December 31 | 54.5 | 54.5 | |
| Number of employees | 4,074 | 4,324 | (6%) |

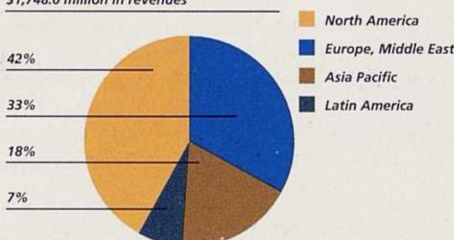
### COMMON SHARE PRICE HISTORY

| | 1999 | | 1998 | |
|---|---|---|---|---|
| | High | Low | High | Low |
| 1st quarter | $26 7/8 | $18 | $40 3/16 | $33 1/4 |
| 2nd quarter | 30 3/4 | 21 3/8 | 38 3/4 | 30 1/4 |
| 3rd quarter | 29 11/16 | 24 3/8 | 32 3/8 | 22 3/8 |
| 4th quarter | 31 3/8 | 23 | 29 9/16 | 23 1/2 |

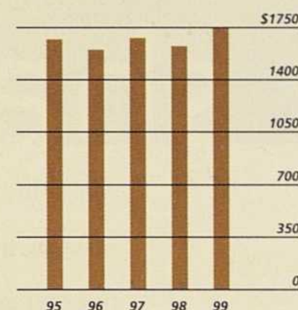
**WORLDWIDE BY PRODUCT**
*$1,748.0 million in revenues*



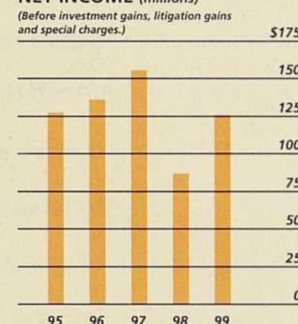

**WORLDWIDE BY ZONE**
*$1,748.0 million in revenues*



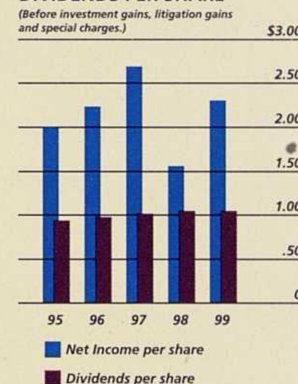

**REVENUES** *(millions)*




**NET INCOME** *(millions)*
*(Before investment gains, litigation gains and special charges.)*




**NET INCOME PER SHARE**
**DIVIDENDS PER SHARE**
*(Before investment gains, litigation gains and special charges.)*



# To our shareholders:

As indicated by Lubrizol's 1999 results, we have achieved substantial improvement in the operational and financial performance of our business. Earnings per share, before special items, increased 48 percent, cash flow from operating activities increased from $155 million in 1998 to $289 million in 1999 and return on shareholders' equity, before special items, increased from 10.9 percent in 1998 to 16.1 percent in 1999. Lubrizol's revenues grew 8 percent to a record $1.75 billion, and the company's product shipments increased 5 percent for the year when acquisitions are excluded. Net income in 1999, excluding unusual items, was $125.3 million, or $2.30 per share.

Reviewing 1999 reveals a significant list of accomplishments. We implemented a new commercial organization, value proposition and operating model in our chemicals for transportation business to be better able to serve our customers. Lubrizol's acquisition of Adibis was completely integrated into our operations ahead of plan and under budget. We successfully introduced advanced new heavy-duty diesel engine oil technology into the marketplace, and our chemicals for industry business delivered strong performance in several areas, including AMPS® Monomer, surfactants and compressor lubricants. This was the year we defined and implemented new performance systems initiatives, announcing an alliance with General Electric Transportation Systems to market Lubrizol's FluiPak™ technology for fluid management in locomotive and mining applications. We also announced a relationship with Caterpillar, Inc. for the testing and endorsement of Lubrizol's new PuriNOx™ low emission, water blend fuel product.

Our position in Asia-Pacific continued to grow as we worked to establish a joint venture in China, and we made progress on our Lubrizol India restructuring. Shipments to customers in that region increased 16 percent in 1999. In 2000, we will be expanding our new globally integrated management information system into Asia-Pacific, which follows the successful implementation of this system in Europe in 1999. We also implemented a new consolidated services function in Europe to replace the previous separate facility groups.

The first phase of our cost reduction initiative was completed in 1999, and further reductions were announced which will be completed by the end of 2000. Total operating expenses in 1999 increased only 3 percent, and all of the increase was attributable to acquisitions. Costs in 1999 included $4 million for Y2K preparations, and we successfully transitioned into 2000 with no Y2K issues. Complexity reduction has been

integrated into our operations and is achieving significant cost savings. Finally, we are particularly pleased to report that, in 1999, we achieved practice-in-place for all six codes of the Responsible Care® program and are working with the Chemical Manufacturers Association to establish new goals to continue our progress in environmental, safety and health matters.

Our successes in 1999 were gratifying and encouraging, but there is much more to be done to achieve the vision of Lubrizol beyond 2000. We must grow our fluid technology knowledge into new product offerings and new applications. We are just beginning to supplement our traditional chemical products with systems and services that our customers will need and value in the future. Our chemicals for transportation business is changing, and we continue to implement a new approach to better serve our customers. Our chemicals for industry business is benefiting from additional focus as we intensify our acquisition efforts to grow in new areas. At the same time, Lubrizol's cost reduction initiatives are firmly established to be able to maintain efficiency and productivity gains.

While this is an appropriate time to pause briefly to honor the past, our success will depend upon correctly envisioning the future. We are committed to doing this, to growing our revenues significantly beyond current levels and to once again achieving 10 percent per year growth in earnings per share. As we enter 2000, we are optimistic about our ability to continue to grow our revenue and earnings and to maintain our momentum in improving shareholder value.

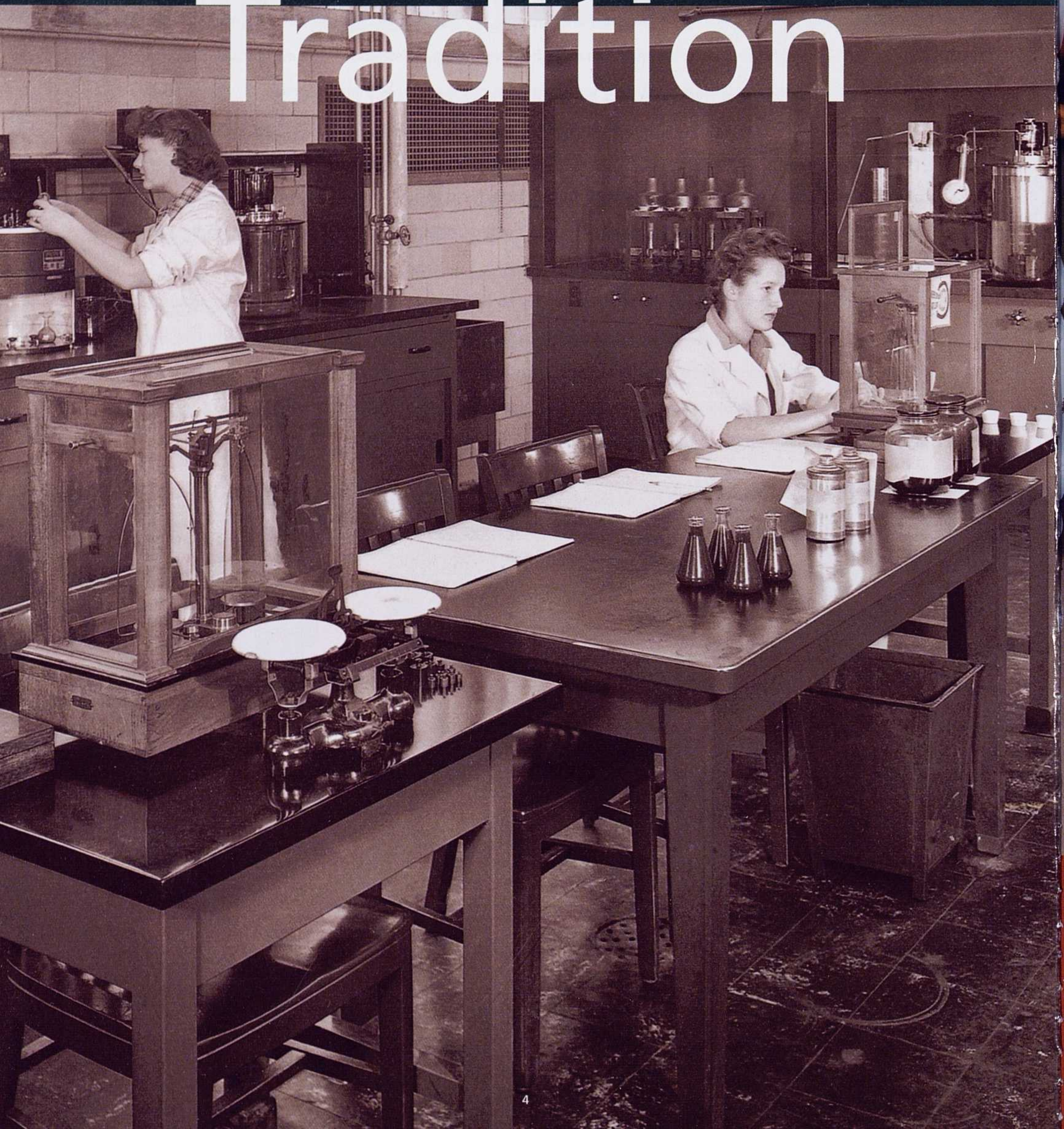
**Our success will depend on correctly envisioning the future.**

W. G. Bares
*Chairman, President and Chief Executive Officer*

March 22, 2000

Every decade has its challenges. In the 1930s, the science of additives for transportation was in its infancy. During the war years, the needs of the military drove the demand for new technology. The 1970s saw the energy crisis. And in the 1990s, the environment took center stage as a global concern. We've only begun to speculate on what 2010 or 2020 will bring, but we're fortunate that our problem-solving culture allows us to anticipate what our customers will need — before they need it.

# Tradition



***"As a research chemist, my work centers around getting molecules to work together in new and different ways. No one understands how to do that as well as Lubrizol. Our chemistry is as new as tomorrow, but our tradition of combining components to solve problems goes back to the roots of the company."***

***— Kathleen Havelka***
***Manager of Application Technology***

# solving problems.

Lubrizol's traditional strength has always been in research and development. Using both knowledge and creativity, we combine components to develop solutions to some of industry's most complex problems. Over the years, we've been able to build on that strength, expanding beyond chemicals for transportation into new and varied industries. Technology is both our tradition and our future. We continue to meet the demands of the world market by effectively applying technology to improve operating efficiency, extend equipment life and minimize environmental impact.

# Innovation

Innovation is the science of "what if." First we ask the questions:

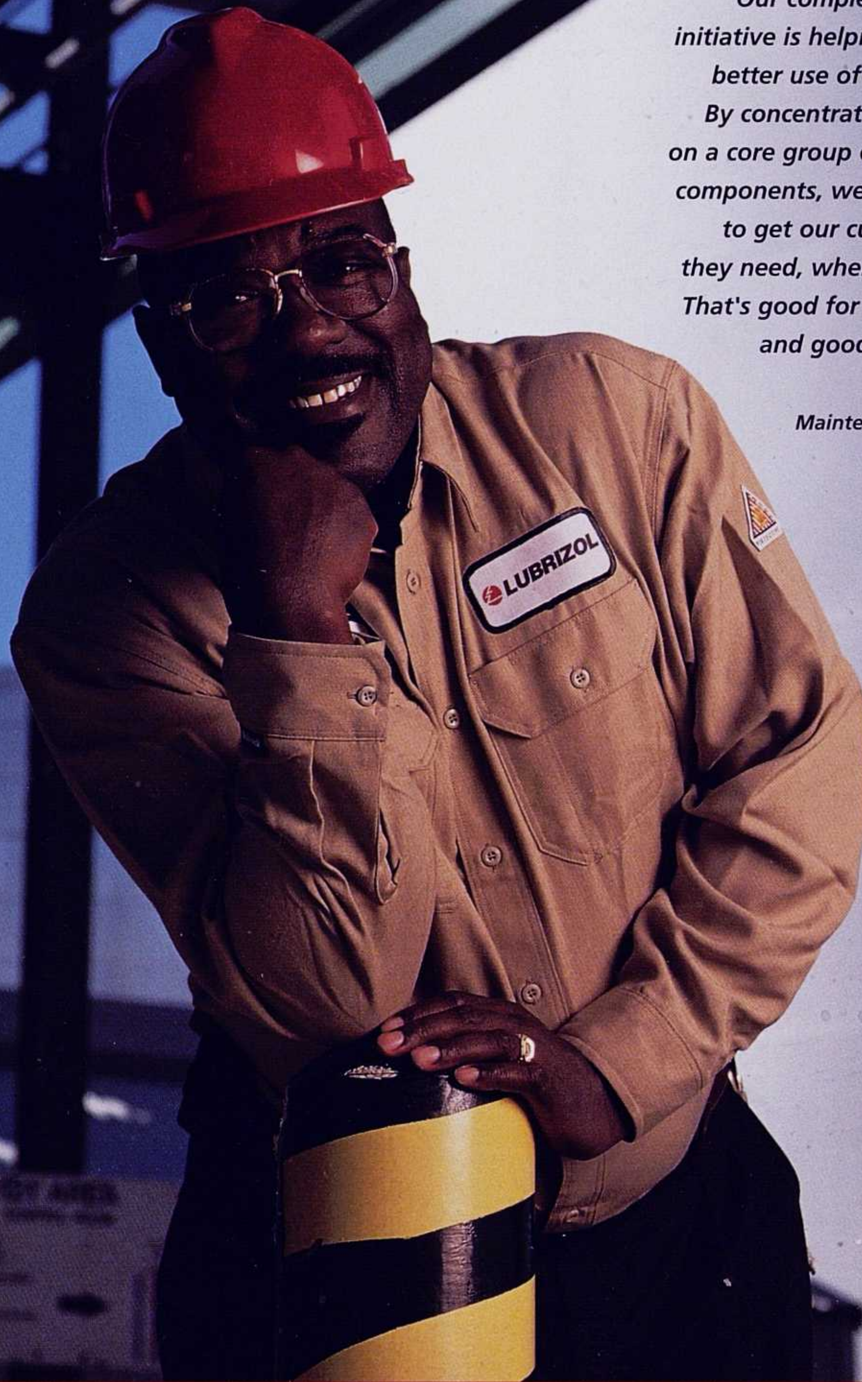
*What if the design of the internal combustion engine changes radically? What if water and fuel really do mix, resulting in reduced emissions? Can we monitor fluids on board a vehicle, predicting problems before they become problems? What if we could develop metalworking fluids that are safer for workers? What will our customers need 5, 10 or even 25 years from now? How do we evolve to meet those needs?*

Then, we look to our innovators to find the answers we need. In most cases, the answers can be found in the right mix of chemicals, services and systems. By expanding our core knowledge in new areas, we are able to find solutions for some of the market's most pressing problems. One such problem, emissions and emission control, will be with us well into the next century. Engine design, emission control systems, additives, finished fluids and fuels will all be part of the answer. Making the most effective use of all of these components will be the challenge. It may require new technology, new equipment and even new software. It will certainly require the best efforts of our innovators. For most of our history, Lubrizol has developed and marketed some of the world's best chemical products. In the future, we will need to develop and market the products of our knowledge.

*"Every upgrade to passenger car or heavy-duty diesel engine oil specifications raises the bar for us. We've only begun to tap the potential of viscosity modifiers in engine performance. Our years of experience and our knowledge of rheology enable us to develop innovative production methods to meet specific performance targets."*

*— Jeff Cash*
***Global Business Manager, Viscosity Modifiers***

# Chemicals

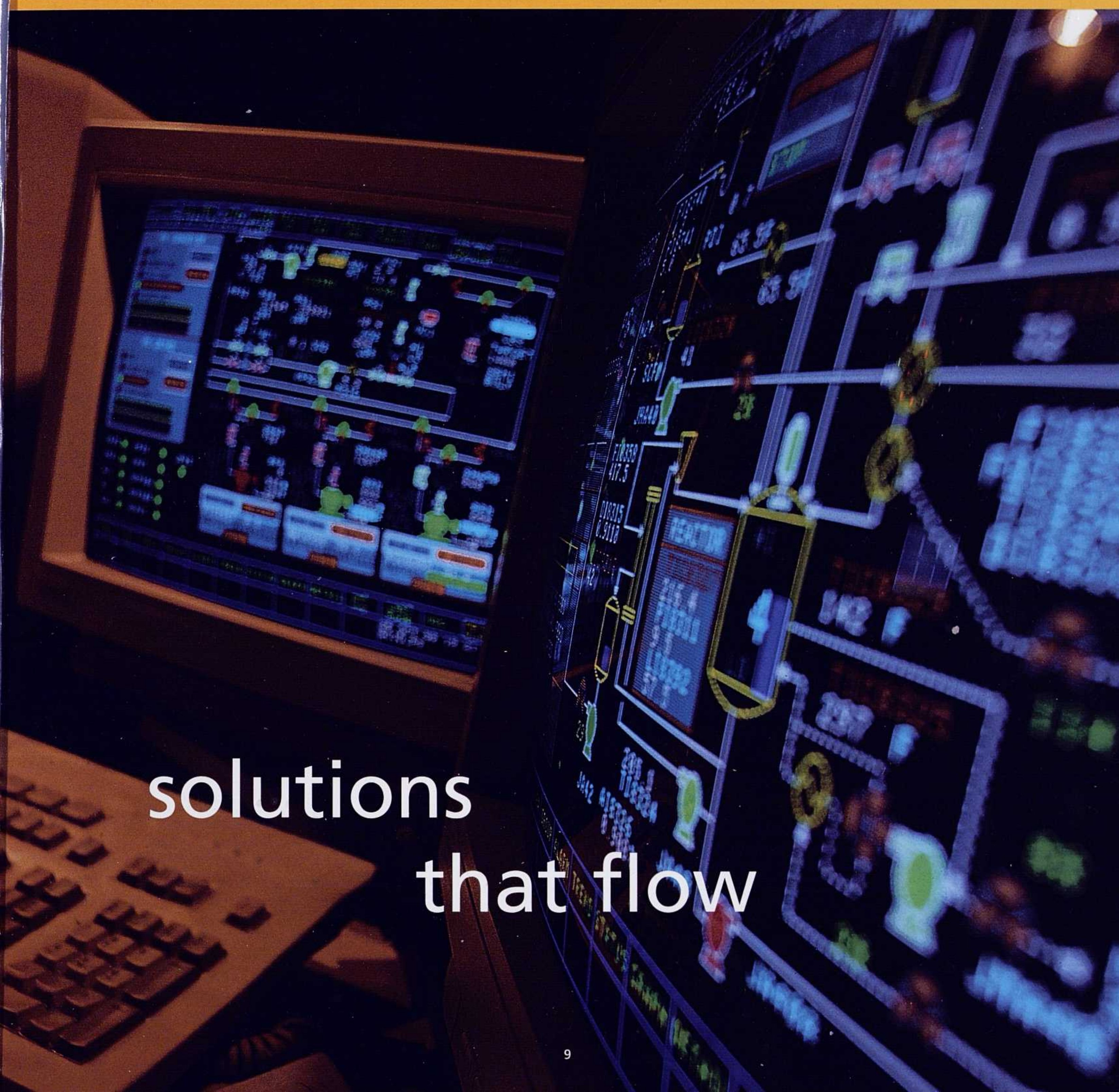



*"Our complexity reduction initiative is helping us to make better use of our resources. By concentrating our efforts on a core group of high quality components, we're better able to get our customers what they need, when they need it. That's good for our customers and good for Lubrizol."*

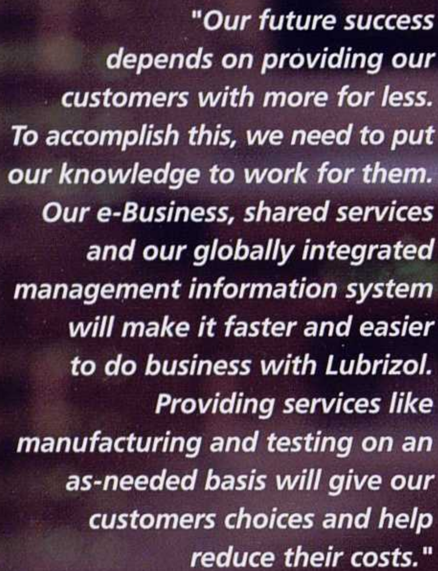
*— John White*
*Maintenance Supervisor*
*Deer Park, Texas*

Lubrizol chemical products all have one thing in common. They do their work in the molecular world, wherever surfaces interact. It doesn't matter whether the surfaces are the parts of a diesel engine or paint on a wall. Lubrizol chemicals are designed to slip between them, helping things to work better. Lubrizol chemicals enhance performance. They improve the operating efficiency of equipment and extend its useful life. For our customers, that means lower maintenance costs and less unscheduled downtime. As a result, they make the most of their investment, favorably impacting their business.

Improving performance and extending equipment life is one part of the equation. The other is the increased demand placed on chemical manufacturers by environmental regulations and worker health and safety. These are top priorities in all of our markets, so they are top priorities for us. In addition to improving operating efficiency, Lubrizol chemicals also reduce harmful emissions. They extend the useful life of performance fluids, which results in less waste fluid for disposal. Our anti-mist technologies, with applications in metalworking, coatings and inks and the transportation industry, help keep work environments cleaner and safer and save energy and maintenance costs. We expect a lot from our chemistry and it delivers. As we continue to streamline our production processes, simplify our product line and reduce manufacturing costs, we're confident that we will be able to provide solutions to the future's most complex challenges.



# solutions that flow



*"Our future success depends on providing our customers with more for less. To accomplish this, we need to put our knowledge to work for them. Our e-Business, shared services and our globally integrated management information system will make it faster and easier to do business with Lubrizol. Providing services like manufacturing and testing on an as-needed basis will give our customers choices and help reduce their costs."*

*— Mark Sutherland*
*e-Business Manager*

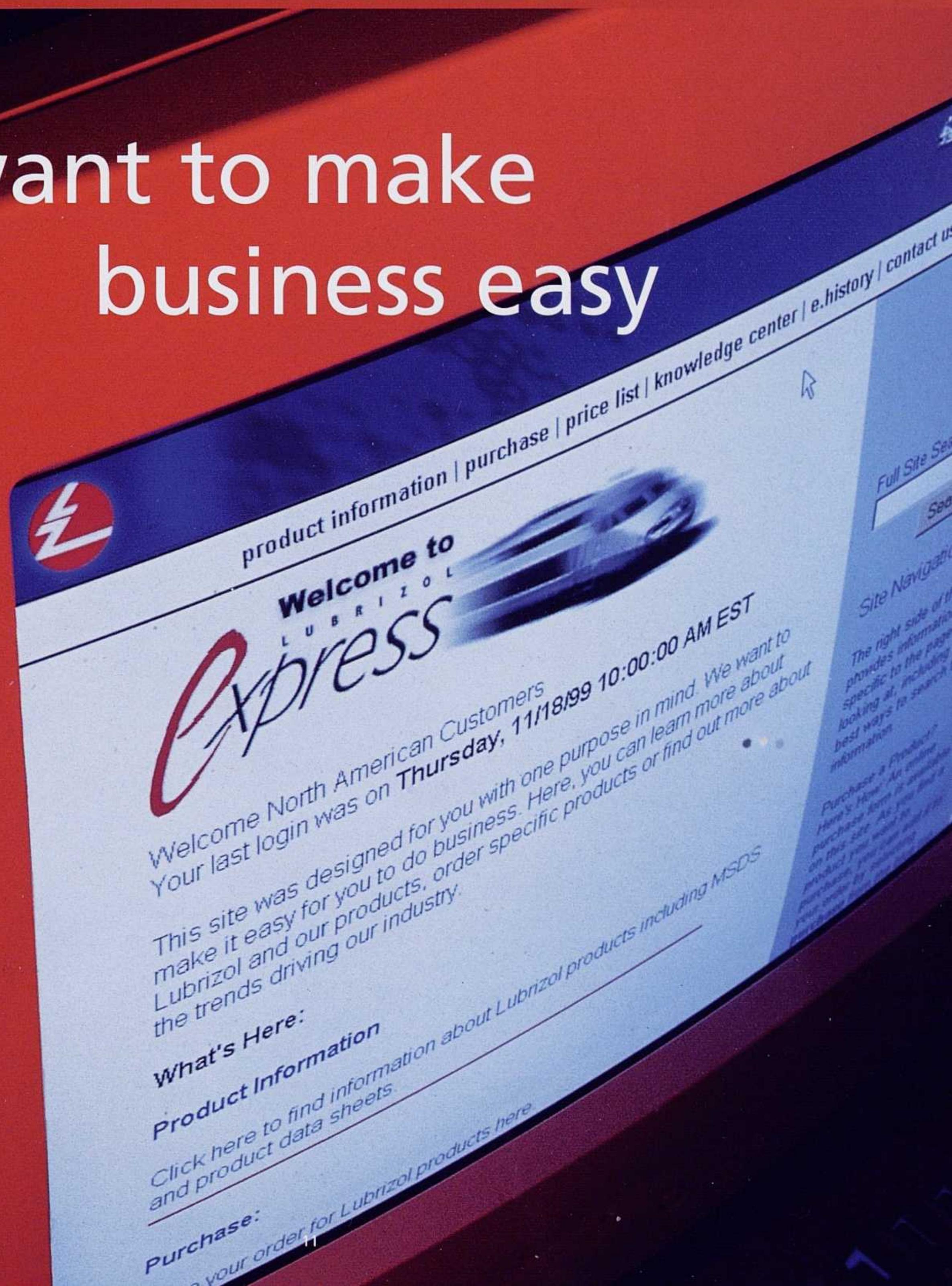
# Services

Throughout our history, we've constantly refined the concept of service with the goal of making it easier for our customers to do business. As both Lubrizol and the marketplace continue to evolve, we've begun to look at the idea of service in a whole new way. Our traditional customers want options. Our new customers need us to find innovative ways to make our skills work for them. As we begin the new century, we've begun to evaluate the best way to make our services available.

Lubrizol's e-Business offers us the opportunity to improve the way we interact with our customers while reducing our cost to serve. In 1999, Lubrizol became the first company in the additive industry to use Internet technology to provide North American customers with online ordering capability. While this service is still in its early stages, we anticipate that it will continue to expand, becoming a vital part of the way we do business. As our initiatives to streamline our operations begin to take hold, other service opportunities are becoming obvious. For example, we're experimenting with offering our manufacturing, testing and research expertise to the marketplace on a fee-per-project basis.

We know that our technical knowledge and decades of experience are an invaluable asset. Our goal is to make that asset available to the marketplace in the way that best serves our customers and Lubrizol.

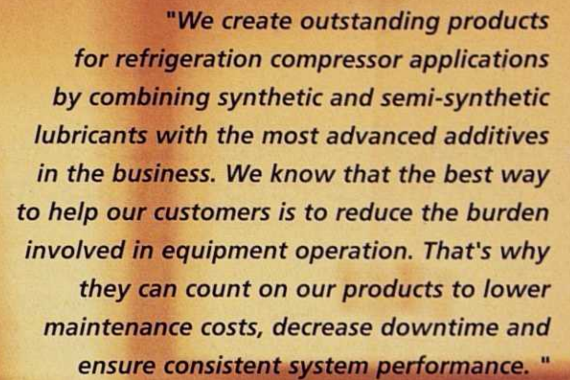
# we want to make business easy



Reducing the burden of operation is the driving force behind most Lubrizol products. As we realized from the very beginning, no one wants a car that squeaks, or a truck that breaks down, or paint that drips, or an engine that violates emissions requirements. Sometimes chemistry is enough to solve the problem, but sometimes it isn't. That's why we're dedicating our efforts to developing systems that provide comprehensive solutions to some very challenging problems.

One of the things generations of problem solving has taught us is that the best solutions result when all of the elements are designed to work together from the beginning. Our systems integrate equipment, chemicals and technology to provide new ways of solving today's most pressing lubrication or environmental challenges.

# Systems



*"We create outstanding products for refrigeration compressor applications by combining synthetic and semi-synthetic lubricants with the most advanced additives in the business. We know that the best way to help our customers is to reduce the burden involved in equipment operation. That's why they can count on our products to lower maintenance costs, decrease downtime and ensure consistent system performance."*

*— John Tolfa*
*President, CPI Engineering*

# reducing the burden of operation

In some cases, we're pooling our expertise with other companies, like GE Transportation Systems, our alliance partner for FluiPak™ technology, which is designed to manage critical fluids for locomotive and mining applications. We also have a contractual relationship with Caterpillar, Inc. for the testing and endorsement of Lubrizol's PuriNOx™ Performance Systems technology, which is a low emission, water blend fuel product combining additive chemistry with a specialized blend unit.

Unexpected downtime costs our customers time and money. Even scheduled maintenance can be costly. Lubrizol systems are reducing that burden by protecting against asset failure and preventing problems before they happen. It's almost three quarters of a century since we developed Lubri-Graph, our first performance system, but we still recognize a good idea when we see one.

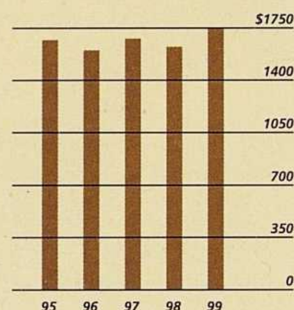
# Management's Discussion and Analysis of Financial Condition and Results of Operations

The Lubrizol Corporation is a fluid technology company concentrating on high performance chemicals, systems and services for transportation and industry. We develop, produce and sell specialty additive packages and related equipment used in transportation and industrial finished lubricants. We create our products through the application of advanced chemical and mechanical technologies to enhance the performance, quality and value of the customer products in which they are used. We group our product lines into two operating segments: chemicals for transportation and chemicals for industry. Chemicals for transportation comprised approximately 83% of our consolidated revenues and 87% of segment pre-tax operating profit in 1999. This discussion and analysis of our financial condition and results of operations is generally focused on the company as a whole since we believe this provides the most appropriate understanding of our business. Note 12 to the financial statements contains a further description of the nature of our operations, the product lines within each of the operating segments and related financial disclosures.

In 1999, we continued to pursue our strategies to expand into new market areas, grow revenues and improve cost structure. We believe that the global growth rate for lubricant additives is approximately 1% per year. Due to changing industry market forces, such as improved engine design and longer drain intervals, we do not expect the annual growth rate to exceed 1% in the future. However, our 1999 shipment volume increased by 9% over 1998 due to acquisitions made during 1998, improvement in the economies in the Asia-Pacific region and new business in North America.

We also have continued implementation of various short- and long-term initiatives relating to our cost structure, such as consolidation of component production and simplification of product lines, to enhance further our competitiveness and market leadership position. In response to market and industry conditions, we began an initiative in November 1998 to reduce costs and improve our worldwide operating structure. The first phase of this initiative, which was completed by December 31, 1999, included the reorganization of our commercial structure, changes in work processes using our new globally integrated management information system, the shutdown of some production units and the consolidation of some facilities and offices. We achieved savings of approximately $24 million in 1999 related to the first phase of this initiative. A second phase, which was announced in the third quarter of 1999, involves primarily the downsizing of our Painesville, Ohio manufacturing facility. These actions are discussed under the caption "Cost Reduction Program and Related Special Charges" and in Note 15 to the financial statements.

Acquisitions are an important part of our strategy to strengthen our business position and expand into new markets, even though only a small acquisition was made during 1999. We continue to actively pursue acquisitions during 2000, with particular focus on our chemicals for industry business.




**1999 RESULTS OF OPERATIONS**

In 1999, we achieved record consolidated revenues of $1.75 billion, which represented an increase of $130.1 million, or 8% (3% excluding acquisitions) as compared with 1998. The primary factor causing the increase in revenues from the prior year was a 9% increase in our shipment volume (5% excluding acquisitions). Our average selling price declined 2% as compared with 1998, all of which was due to lower product pricing and changing product mix. Chemicals for transportation revenues increased $87.7 million, or 6%, over 1998. Approximately two-thirds of the increase was due to our 1998 acquisition of Adibis. Chemicals for industry revenues increased $42.4 million, or 17%, over 1998. Approximately one-half of the increase was due to acquisitions, primarily our acquisition of Carroll Scientific, Inc.

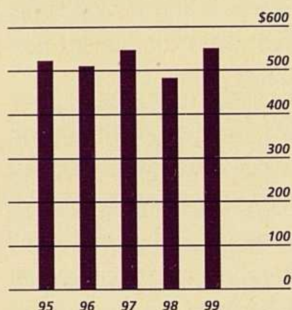
The increase in 1999 shipment volume, excluding acquisitions, was attributable to North America and Asia-Pacific. Shipment volume to North American customers increased 13% primarily due to new business awarded at the end of 1998 and in 1999. Shipments to Asia-Pacific customers in 1999, excluding acquisitions, increased 14% compared to 1998 primarily due to the economic improvement in the region. Shipments to European and Latin American customers in 1999, excluding acquisitions, decreased 4% and 10% respectively, due primarily to sluggish economies with some business loss. We believe consolidated 1999 results benefited from some advance buying in late 1999 related to Year 2000 concerns, and customer purchases in advance of an announced price increase. A number of the factors that contributed to the strong volume growth in 1999 may not be present in 2000, and we believe that volume in 2000 (excluding acquisitions) is likely to be approximately the same as 1999.

Cost of sales for 1999, including acquisitions, increased 5% reflecting higher shipment levels partially offset by lower average raw material cost compared with 1998. On a sequential basis, we experienced a 4% increase in average raw material cost during the third quarter and an additional 2% increase

during the fourth quarter, as a result of higher crude oil pricing and its downstream effect. In November 1999, we announced a global price increase ranging from 3% to 7% depending on the product group, to recover the increasing raw material cost. The price increase, which was effective December 15, 1999, was successful and we believe it will result in an average increase of 4% to 4.5% when fully implemented. We began to see the impact on revenues in the first quarter of 2000 and anticipate the full impact will be felt by the end of the second quarter. We continue to experience material cost increases in the first quarter of 2000, and further price increases will be necessary to enable us to maintain our margins. Manufacturing costs, included in cost of sales, increased 7% (3% excluding acquisitions) in 1999 compared to 1998.

Gross profit (net sales less cost of sales) increased $67.4 million, or 14%, in 1999 compared with 1998. Excluding acquisitions, gross profit increased $50.3 million, or 10%, in 1999 compared with 1998. Most of the increase was due to higher volume and the impact of lower average raw material cost partially offset by lower average selling price. Additionally, $10 million of the increased gross profit was due to the impact on cost of sales of favorable changes in currency exchange rates. Of the total gross profit increase, $54.1 million was attributable to chemicals for transportation and $13.3 million was attributable to chemicals for industry. This represented a 14% increase for each operating segment. Acquisitions accounted for one-fourth of the chemicals for transportation increase and one-half of the chemicals for industry increase, and the remainder was due to the factors noted above.

GROSS PROFIT *(millions)*

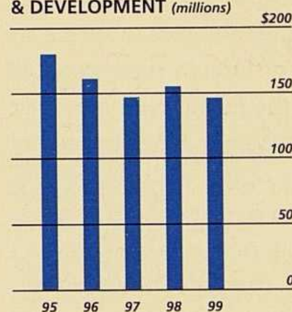



The gross profit percentage (gross profit divided by net sales) improved to 31.5% for 1999 as compared with 29.8% for 1998 for the same reasons as discussed above. In addition, the 1998 gross profit percentage was unusually low as explained in the discussion of 1998 results of operations. The gross profit percentages for chemicals for transportation and chemicals for industry were 30.6% and 35.4%, respectively, compared to 28.6% and 36.1% in 1998.

Selling and administrative expenses increased by $1.5 million, or 1%, in 1999 compared with 1998. Excluding acquisitions, selling and administrative expenses decreased $4.4 million, or 2%, in 1999 due to lower legal expenses, efficiencies from the integration of Adibis, lower pension costs, reduced spending on our global enterprise-wide management information system and favorable currency effects. These factors were partially offset by higher variable pay and costs associated with "Year 2000" compliance activities.

Research, testing and development expenses (technology expenses) decreased $5.1 million, or 3%, in 1999 compared with 1998. Excluding acquisitions, technology expenses decreased $8.3 million, or 6%. Product standards change periodically to meet new emissions, efficiency, durability and other performance factors as engine and transmission designs are improved by equipment manufacturers. These changes influence the timing and amount of technology expense. Approximately 80% of our technology cost is incurred in company-owned facilities and 20% is incurred at third-party testing facilities. The reduction in technology expenses was achieved, in part, by reduced spending in 1999 for engine tests conducted at third party facilities. In addition, an industry delay in the effective date of the proposed new U.S. passenger car motor oil technical standard, GF-3, has resulted in a deferral of related testing activities. This delay, along with savings generated from the first phase of our cost reduction program implemented in late 1998, also contributed to lower technical expenses in 1999 compared with 1998. We believe technical spending will increase by about 5% in 2000 because of the anticipated GF-3 testing requirements.

RESEARCH TESTING & DEVELOPMENT *(millions)*




Primarily as a result of the factors previously discussed, consolidated revenues increased $72.0 million more than the increase in total costs and expenses in 1999.

We recorded special charges for the year of $19.6 million ($13.2 million after-tax or $.24 per share) relating to both phases of our cost reduction program. These special charges are discussed under the caption "Cost Reduction Program and Related Special Charges" below and in Note 15 to the financial statements.

On March 31, 1999 Lubrizol and Exxon Corporation reached a settlement of all pending intellectual property litigation between the two companies and their affiliates, except for litigation pending in Canada. Under the settlement agreement, Exxon paid us cash of $16.8 million in April 1999. After deducting related expenses, this settlement increased 1999 pre-tax income by $14.5 million ($9.0 million after-tax or $.16 per share). Further information regarding our litigation with Exxon is contained in Note 16 to the financial statements. Additionally,

we recorded a pre-tax gain of $3.1 million ($1.9 million after-tax or $.04 per share) in the fourth quarter for the settlement of litigation unrelated to Exxon.

The change in other income (expense) unfavorably affected 1999 pre-tax income by $5.6 million compared with 1998. The change resulted primarily from higher goodwill amortization related to acquisitions made in the second half of 1998, and higher currency translation and transaction losses, principally in Brazil, partially offset by higher equity earnings of affiliated companies.

Interest expense increased $8.6 million in 1999 compared with 1998, principally because of higher borrowings necessitated by the acquisitions made during the second half of 1998 and 1998 share repurchases.

While changes in the dollar value of foreign currencies will affect earnings from time to time, the longer-term economic effect of these changes should not be significant given our net asset exposure, currency mix and use of U.S. dollar-based pricing in certain countries. As the U.S. dollar strengthens or weakens against other international currencies in which we transact business, our financial results will be affected. Changes in currency exchange rates during 1999 had a favorable effect on net income per share of $.07 for the year as compared to exchange rates in effect during 1998. This was primarily a result of the weakening of the U.S. dollar against the Japanese yen, partially offset by a strengthening of the U.S. dollar against the pound sterling and other currencies.

As a result of the factors discussed above, income before income taxes increased by $76.5 million, or 64%, over 1998. After excluding from both years the special charges and the gains from litigation settlements, income before income taxes increased by $57.8 million, or 41%, over 1998. Segment operating profit before tax, which excludes interest expense, increased $61.5 million, or 47%, for chemicals for transportation, and increased $4.9 million, or 22%, for chemicals for industry, as compared to 1998.

The effective tax rate on 1999 income, before litigation gains and special charges, decreased to 36.5% as compared with 38.0% in 1998. This decrease, which increased 1999 earnings before these items by $.05 per share, was primarily due to improvement in the profitability of certain foreign subsidiaries with loss carryforwards, a reduction in the amount of non-deductible translation losses at certain foreign subsidiaries, and a significant increase in pre-tax profit which diluted the effect of non-deductible items.

Net income in 1999 was $123.0 million, or $2.25 per share. In 1998, net income was $71.2 million, or $1.27 per share. After excluding from 1999 and 1998 the special charges and the gains from litigation settlements, net income in 1999 was $125.3 million, as compared to $86.5 million in 1998, an increase of 45%. On this same basis, 1999 net income per share was $2.30, an increase of 48% over the $1.55 per share earned in 1998.

## COST REDUCTION PROGRAM AND RELATED SPECIAL CHARGES

We initiated a series of steps in 1998 to reduce costs and improve our worldwide operating structure and are executing these steps in two phases over a period approximating two years. The first phase, which began in the fourth quarter of 1998, resulted in the reduction of approximately 7% of our workforce, or 300 employees, at both domestic and international locations. Approximately 55% of this reduction occurred by December 31, 1998, a further 35% occurred in the first quarter of 1999 and the remainder was substantially completed by the end of the third quarter of 1999. Of the 300 employees, approximately 40% were in the manufacturing area and 60% were in the selling, administrative, research and testing areas. In addition, we permanently removed seven component production units from service during this first phase.

We recorded a special charge of $23.3 million in the fourth quarter of 1998 for the cost directly associated with this first phase of the cost reduction program. In the first quarter of 1999, we recognized additional expense of $3.1 million ($2.9 million after-tax or $.05 per share) to reflect a greater amount for separation benefits, principally in Japan. In the fourth quarter of 1999, an adjustment was made to reduce the special charge by $4.3 million ($2.5 million after-tax or $.05 per share) to reflect the settlement gain recorded as a result of settling employee pension obligations and other accrual adjustments. As adjusted, first phase employee severance costs approximated $20.0 million of the total charge of $22.1 million and other exit costs approximated $2.1 million, virtually all of which related to asset impairments for component production units taken out of service. We spent approximately $5.0 million and $14.7 million in 1998 and 1999, respectively, related to this phase of the cost reduction program. We estimate annualized savings of $28 million, of which approximately $24 million was achieved in 1999.

The second phase of our cost reduction program, which began in the third quarter of 1999, involves primarily the downsizing of our Painesville, Ohio manufacturing plant. This will result in the additional reduction of approximately 5% of our work-

force, or 200 employees, and the shutdown of 23 of Painesville's 36 production systems. Through December 31, 1999, we have shut down 12 of the 23 targeted production systems and have completed approximately 22% of the anticipated workforce reduction. We expect the remainder of the system shut downs and workforce reduction to occur by the end of 2000. After restructuring, the Painesville plant will continue to operate as a producer of small volume specialized intermediates and as a blender of certain additive packages.

We recorded a special charge of $20.8 million ($12.9 million after-tax or $.24 per share) in the third quarter of 1999 relating to this second phase of our cost reduction program. Employee severance costs are $8.5 million of the charge and other exit costs are $12.3 million, including $8.9 million related to asset impairment for component production units to be taken out of service. We spent approximately $1.3 million in 1999 related to this phase of the cost reduction program, and we expect to spend $10.6 million in 2000. Additionally, we will spend approximately $8 million of capital to transfer a portion of the Painesville capacity to our Deer Park, Texas plant. We expect to achieve annual savings of $20 million following completion of these actions in the latter part of 2000.

### 1998 RESULTS OF OPERATIONS

**In 1998,** the continuing weak business environment of the lubricant additives industry and poor economic conditions in Asia-Pacific and Latin America negatively impacted the financial results for the year, particularly during the second half of the year. Despite acquisitions contributing 5% to consolidated revenues during 1998, annual revenues declined 3% as compared with 1997. Lower average selling prices combined with relatively level material costs compressed profit margins. In addition, higher interest expense and a higher effective tax rate each contributed to 1998 earnings being significantly lower than 1997 earnings.

Consolidated revenues for 1998 of $1.62 billion decreased $55.9 million, or 3%, as compared with the then-record 1997 annual revenues of $1.67 billion. The primary factors causing the decline in revenues from 1997 were lower average selling prices and lower pre-acquisition volume, which more than offset the year-over-year incremental revenues from acquisitions. Excluding acquisitions, sales volume declined by 4% for 1998 and by 10% for the second half of 1998 as compared with the comparable 1997 periods. The 1998 average selling price declined 5% as compared with 1997, of which 75% was due to lower product pricing and changing product mix and 25% was due to currency. The year-over-year increase in revenues from acquisitions was $81.2 million, of which $38.0 million pertained to chemicals for transportation and $43.2 million pertained to chemicals for industry.

The slowing of lubricant additive demand in virtually all geographic areas during 1998 and the economic conditions in Asia-Pacific caused difficult comparisons against 1997, a year in which we achieved record revenues and sales volume. Although sales volume in 1998 was flat with 1997, excluding acquisitions, sales volume declined 4%. On this same basis, sales volume to customers in North America during 1998 was level with 1997, but declined 7% to international customers. For the 1998 second half compared with the same period of 1997, sales volume (excluding acquisitions) decreased 3% to customers in North America and decreased 15% to international customers.

The economic difficulties in the Asia-Pacific region had an accelerating, unfavorable effect on our 1998 results. Products shipped to customers in Asia-Pacific are manufactured primarily in production facilities in the United States and comprised approximately 16% and 19% of our revenues in 1998 and 1997, respectively. Sales volume to customers in Asia-Pacific during the first half of 1998 declined by only 1% as compared with the first half of 1997, but declined by 21% in the 1998 second half as compared with the 1997 second half. Lower sales volume into Asia-Pacific was the primary reason that overall sales volume declined in 1998. Asia-Pacific revenues declined by $53 million, or 17%, for the year 1998 and by $40 million, or 24%, for the second half of 1998 as compared with the respective 1997 periods. Some forward buying during the second half of 1997 by customers in Asia-Pacific in a reaction to worsening economic conditions exacerbated the comparison with 1998.

Cost of sales for the full year 1998, including acquisitions, increased only 1% over 1997 as sales volume, average material unit costs and manufacturing costs remained relatively constant between the comparable periods. Average material unit costs declined less than 1% from 1997. Our manufacturing costs do not fluctuate significantly with changes in production volume. The effects of our ongoing manufacturing rationalization program and other cost management initiatives helped keep manufacturing costs level as compared with the prior year, despite a $12.2 million increase from acquisitions.

Gross profit (net sales less cost of sales) decreased $64.4 million, or 12%, in 1998 compared with 1997. Excluding acquisitions, gross profit declined $82.3 million, or 15%, in 1998 compared with 1997. Gross profit decreased $30.2 million, or 11%, ($35.3 million, or 13%, excluding acquisitions) in the first half of 1998 and decreased $34.2 million, or 13%, ($47.0 million, or 18%, excluding acquisitions) in the second half of 1998 compared with the same 1997 periods. The decrease in gross profit for each of the respective periods was primarily due to the decline in selling prices and, in the second half of 1998, also due to the lower sales volume. The $17.9 million increase in gross profit contributed from acquisitions made in 1998 was partially offset by unfavorable currency effects of $7.4 million.

The gross profit percentage (gross profit divided by net sales) was 29.8% for 1998 as compared with 32.7% for 1997. This decrease in gross profit percentage was attributable to the lower average selling price as well as the unfavorable effect on per unit manufacturing costs resulting from lower production levels, particularly in the fourth quarter of 1998. In addition, the gross profit percentage of 27.6% in the fourth quarter of 1998 reflected a $4.3 million inventory write down primarily due to a change in a customer product specification.

Selling and administrative expenses increased by $8.5 million, or 5%, in 1998 compared with 1997. Excluding acquisitions, selling and administrative expenses were $1.5 million, or 1%, lower compared with 1997. Selling and administrative expenses in 1998 reflected increased spending of $11.3 million related to the implementation of the new enterprise-wide, management information system, but this was more than offset by lower variable pay expense, lower litigation expense and other cost reductions.

Research, testing and development expenses (technology expenses) increased $4.3 million, or 3%, in 1998 compared with 1997. Excluding acquisitions, technology expenses declined $1.9 million, or 1%, from 1997. During 1998, approximately 80% of our technology cost was incurred in company-owned facilities and 20% was incurred at third-party testing facilities. Testing expenses incurred at third party testing facilities increased $5.5 million in 1998 over 1997 primarily due to a new performance specification for heavy-duty engine oils. Our technology expense in 1998, as well as in 1997, included costs related to new performance specifications for heavy-duty engine oils, which were introduced into the market in late 1998, and new performance specifications for passenger car engine oils expected to become effective during 2000.

Primarily as a result of the factors previously discussed, the change in revenues together with the change in total costs and expenses unfavorably affected our pre-tax profits by $78.4 million for the full year 1998 and by $45.3 million for the second half of 1998 as compared with respective 1997 periods.

In the fourth quarter of 1998, we recorded special charges aggregating $36.9 million. These special charges related to the first phase of our cost reduction program, which amounted to $23.3 million, and the write-off of $13.6 million of purchased technology under development originating from the Adibis acquisition. After-tax, these special charges reduced 1998 net income by $25.8 million, or $.47 per share.

On April 23, 1998, we reached a settlement with Exxon Corporation of a lawsuit pending in federal court in Ohio and we received cash of $19 million from Exxon. The pre-tax gain from this litigation settlement, net of related expenses, was $16.2 million. After-tax, the litigation settlement increased net income by $10.5 million, or $.19 per share. Further information regarding our litigation with Exxon is contained in Note 16 to the financial statements.

The change in other income (expense) unfavorably affected 1998 pre-tax income by $6.3 million compared with 1997. This change mostly occurred during the second half of the year and resulted primarily from higher goodwill amortization, higher currency exchange transaction losses and lower equity earnings from joint venture companies.

Interest expense increased $8.2 million in 1998 compared with 1997, reflecting significantly higher borrowings that were incurred primarily to finance acquisitions during the year.

As the U.S. dollar strengthens or weakens against other international currencies in which we transact business, our financial results will be affected. During 1998, the U.S. dollar strengthened and the change in currency exchange rates had an unfavorable effect on net income per share of $.07 for the year 1998 as compared with exchange rates in effect during 1997.

As a result of the factors discussed above, income before income taxes decreased by $112.3 million for the full year 1998 and by $93.8 million for the second half of 1998 as compared with the respective periods of 1997. Excluding from 1998 the litigation gain and special charges, income before income taxes decreased by $91.6 million, or 40%, for the full year 1998 and by $56.9 million for the second half of 1998 as compared with the respective periods of 1997.

The 1998 effective tax rate on income, before the litigation gain and special charges, increased to 38% as compared with 33% in 1997. This increase, which lowered 1998 earnings before these items by $.12 per share, was primarily a result of lower 1998 operating earnings and increased non-tax deductible 1998 translation losses incurred by our foreign subsidiaries using a U.S. dollar functional currency. Other reasons for the change in the effective tax rate included shifts in earnings among the various countries in which we operate and the tax benefits recognized during the second half of 1997 resulting from favorable tax law changes enacted by France, the United States and the United Kingdom. Taking into account the litigation gain and the fourth quarter special charges, the overall effective tax rate for 1998 was 40%.

Net income in 1998 was $71.2 million, or $1.27 per share. In 1997, net income was $154.9 million, or $2.68 per share. After excluding from 1998 the litigation gain and the special charges, net income in 1998 was $86.5 million, a decrease of 44% from 1997. On this same basis, 1998 net income per share was $1.55, a decline of 42% from the $2.68 per share earned in 1997.

### 1997 RESULTS OF OPERATIONS

**In 1997,** we made significant progress with each of our strategies to grow our business, improve our cost structure and build our franchise. During 1997, revenues increased 5% as product shipments increased 17% over 1996 and our market share grew. We continued our focus to improve our cost structure as operating expenses were flat versus 1996, even with significantly higher production throughput. Net income per share in 1997 increased 20%, after excluding from 1996 the gain on investments. This record performance was achieved despite the unfavorable effect on earnings of the stronger U.S. dollar.

In 1997, we had then-record revenues of $1.67 billion, an increase of $76.2 million over 1996. Increased revenues resulted from a 17% increase in specialty chemical shipment volumes (contributing a 15% increase in consolidated revenues), partially offset by a 10% decline in the average selling price. Although the average selling price stabilized during the second half of the year, the full-year decline for 1997 was attributable approximately 50% to changing product mix, 30% to unfavorable currency effects and 20% to lower product pricing. The unfavorable product mix effect resulted from volume gains in product lines having lower than the overall average selling price. On balance, our acquisition/divestiture activity did not significantly affect 1997 annual revenues as recent acquisitions offset a prior year disposition. However, acquisitions contributed one-fourth, or $11.4 million, of the 13% increase in consolidated revenues for the fourth quarter of 1997 compared with the fourth quarter of 1996.

A primary strategy in 1997 was to grow our business. We had success building global and regional alliances with targeted customers and continued actively pursuing additional strategic relationships with finished lubricant suppliers. As compared with 1996, sales volume increased throughout the year. Higher sales volumes were realized in all geographic zones and across a broad customer base. In 1997, sales volume increased 14% to North American customers and 18% to international customers, primarily in Asia-Pacific, Western Europe and Latin America. The growth in sales volume was derived principally from market share gains within established markets rather than overall industry growth.

Cost of sales reflected the higher sales volume as well as lower average raw material costs and level manufacturing costs. Compared with the respective prior year periods, average material costs, including favorable currency effects and the impact of less expensive product mix, were 10% lower in the first half of 1997, 6% lower in the second half of 1997 and 8% lower for the year. Our manufacturing costs do not fluctuate significantly with changes in production volume. The effects of our ongoing manufacturing rationalization program and other cost management initiatives have improved manufacturing efficiency as we are operating fewer manufacturing units at higher capacity levels. Manufacturing costs, aided by currency effects, were flat in 1997 compared with 1996, even though production activity was significantly higher in 1997 and we resumed pay increases following the salary freeze in effect during 1996.

Gross profit increased $36.2 million, or 7%, in 1997 compared with 1996. This improvement in gross profit amount was after unfavorable currency effects of $20.0 million, which occurred evenly over the four quarters. Acquisition/divestiture activity contributed $13.0 million to the increase in gross profit for 1997. Gross profit improved to 32.7% of sales in 1997 compared with 32.0% in 1996 as manufacturing efficiencies, lower material costs and the effect of acquisition/divestiture activities more than offset the effect of lower average selling price. Gross profit was 31.4% during the second half of 1997 due to sequentially lower average selling price, higher material costs and the effect of asset impairment losses of $4.4 million principally in the fourth quarter.

Selling and administrative expenses increased $12.6 million, or 8%, in 1997 compared with 1996. These expenses, which were higher in the second half of the year compared with the first half, increased primarily due to higher patent-related litigation expenses, the effect of acquisitions, incremental expenses related to the implementation of the new enterprise-wide management information system and increased variable compensation as a result of higher earnings.

During 1997, research, testing and development expense (technology expense) decreased $14.3 million, or 9%, from 1996. The lower spending level in 1997 was due to the timing of testing programs particularly within the engine oil and gear oil product lines, greater internalization of testing activity that reduced outside testing requirements and workforce reductions. Our technology expense in 1997 included some costs related to new performance specifications for heavy-duty engine oils which became effective during 1998 and new performance specifications for passenger car engine oils expected to become effective during 2000.

As discussed in Note 15 to the financial statements, in 1997, we provided $9.4 million for the impairment of long-lived assets. These charges related to a shutdown of an intermediate manufacturing system and the write-off of certain computer equipment and legacy software systems that were disposed of due to the computer equipment standardization project and the new enterprise-wide management information system being implemented.

Primarily as a result of these factors, consolidated revenues increased $37.7 million more than the increase in total costs and expenses in 1997.

Interest income in 1997 was lower than in 1996 as proceeds from the 1996 sale of investments were temporarily invested in interest-bearing instruments until used in our share repurchase program. Interest expense in 1997 was level with 1996. The average daily balance of total debt outstanding during 1997 was $195 million as compared with $188 million in 1996.

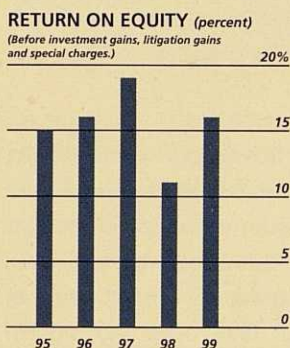
We conduct a significant amount of business outside of the United States and are subject to certain related risks including currency fluctuations. The U.S. dollar continued to strengthen during 1997, causing an unfavorable effect on net income of approximately $10.0 million, or $.17 per share.

As a result of the factors discussed above and after excluding from 1996 the gain on investments, income before income taxes increased 17%, or $33.8 million, from 1996. We adjusted our tax provision in the third quarter of 1997 to reflect a legislated increase in the statutory tax rate applicable to our earnings in France, where we have significant operations. This adjustment resulted in an effective tax rate of 33.0% for the full year 1997 as compared with 31.5% in 1996, after excluding the 1996 gain on investments on which a 35% tax rate applied. The higher effective tax rate reduced net income by $3.5 million, or $.06 per share in 1997.

Net income in 1997 was $154.9 million, or $2.68 per share. In 1996, net income was $169.8 million, or $2.80 per share, which included investment gains. After excluding from 1996 the nonrecurring gains, net income in 1997 was 15% higher than the $135.2 million for 1996. On this same basis, net income per share was 20% higher than the $2.23 per share for 1996, reflecting our share repurchase program.

## RETURN ON AVERAGE SHAREHOLDERS' EQUITY

Return on average shareholders' equity was 16% in 1999 (also 16% excluding the litigation gains and special charges), 9% in 1998 (11% excluding the litigation gain and the special charge) and 19% in 1997.



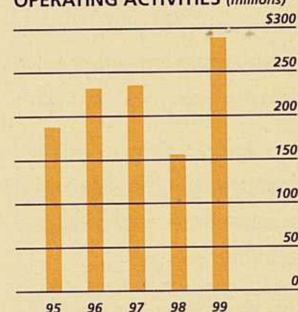

## WORKING CAPITAL, LIQUIDITY AND CAPITAL RESOURCES

Our cash flows for the years 1997 through 1999 are presented in the consolidated statements of cash flows. We had strong cash flow in 1999, as cash provided from operating activities increased by $133.8 million, or 86%, over 1998, to a total of $289.0 million. This increase was primarily due to higher earnings, and a $52 million reduction in working capital in 1999 compared to $45 million growth in working capital in 1998. The reduction in working capital resulted from implementation of an initiative to reduce inventory, collection of a $15 million income tax refund receivable and an increase in current liabilities.

We have been engaged in a multi-year project to implement a global enterprise-wide management information system and standardize the computer equipment among all of our major facilities. This project supports our strategy to improve our cost structure by reducing complexity and increasing efficiency and was a critical component in our "Year 2000" compliance plan for our business information systems. This system provides internal access to company information so that resources are shared and processes are standardized and integrated world-

wide. We implemented the new enterprise-wide management information system in the United States during April 1998 and in Europe during April 1999, and we anticipate completing implementation in Singapore and Australia in April 2000.

Capital expenditures in 1999 were $64.9 million compared with $93.4 million in 1998. The reduction in capital spending was due to decreased expenditures related to our multi-year project to implement the enterprise-wide management information system ($7.6 million in 1999 as compared to $17.6 million in 1998) and lower spending on manufacturing projects. We estimate capital expenditures for 2000 will be approximately $80 million.

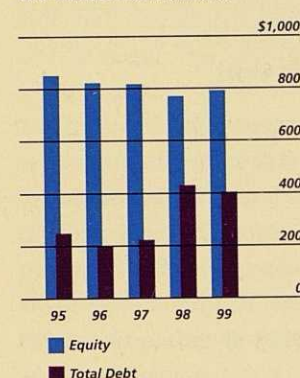



We made one acquisition in 1999 for $1.9 million. In 1998, we made six acquisitions for cash of $155.4 million and one acquisition for 89,806 of our common shares valued at $2.4 million. These acquisitions were in the areas of lubricant additives, metalworking additives and coating additives and broaden our base in performance chemicals.

We maintained an active share repurchase program for a number of years, but suspended repurchases at the end of 1998 because net debt as a percent of capitalization had reached our target level of 35% and we wanted to preserve cash and borrowing capacity to fund potential acquisitions. During 1998, we repurchased approximately 2.6 million common shares, or 4.6% of our common shares outstanding at the beginning of 1998, for $80 million. Because of our strong cash flow in 1999 and the completion of only one small acquisition during the year, our net debt as a percent of capitalization decreased to 25% at year-end. As a result, we resumed share repurchases late in the year. We repurchased approximately 140,000 common shares for $4.2 million in 1999, and we anticipate spending an aggregate of $20 million for share repurchases through the end of the first quarter of 2000. Net debt is the total of short- and long-term debt, reduced by cash and short-term investments in excess of an assumed operating cash level of $40 million. Capitalization is shareholders' equity plus net debt.

The increase in cash flow from operating activities and the minimal amount of share repurchases and acquisition activity enabled us to reduce our borrowings by $27.9 million during 1999 and to increase our cash and short-term equivalents by $131.8 million.

Our net borrowings during 1998 totaled $201.7 million. These borrowings were used primarily to finance $155 million of cash expended for acquisitions, most of which occurred in the third quarter, and our share repurchase program. As discussed in Note 4 to the financial statements, we replaced a significant portion of outstanding commercial paper borrowings by issuing $200 million of long-term debt in November 1998. We incurred debt issuance costs of $10.5 million in 1998, including a $6.5 million loss related to a hedge against changes in interest rates relative to the anticipated issuance of this debt. Debt increased during 1997 primarily to finance several acquisitions and the increase in working capital.




Our financial position remains strong with a ratio of current assets to current liabilities of 2.5:1 at both December 31, 1999 and 1998. Effective July 1, 1998, we increased our committed revolving credit facilities from $75 million to $300 million. One-half of the aggregate amount of these facilities expired on June 30, 1999, and the remainder expires on June 30, 2003. We did not renew the $150 million in facilities that expired on June 30, 1999, because the November 1998 issuance of $200 million in long-term notes reduced our expected financing requirements. The remaining $150 million in facilities, which were unused at December 31, 1999, permit us to borrow at or below the U.S. prime rate. We believe that our existing credit facilities, internally generated funds and ability to obtain additional financing, if desired, will be sufficient to meet our future capital needs.

### YEAR 2000 MATTERS

We developed a global Year 2000 strategy covering each of our facilities designed to minimize Year 2000 disruptions to our computer-based systems, including business information systems and process control, testing and laboratory equipment and embedded systems. Our Year 2000 compliance strategy incorporated the conversion of most of our business information systems from mainframe systems to compliant, client/server systems. Much of this conversion was part of our implementation of our global enterprise-wide management information system. We have not incurred any adverse impact on our operations because of Year 2000 factors, including any inability or difficulty of our suppliers or customers to operate in the Year 2000. We do not anticipate any adverse impact on our 2000 financial results due to Year 2000 issues.

Through December 31, 1999, we had spent approximately $76.6 million related to the implementation of our global enterprise-wide management information system, of which approximately $53.6 million was capitalized and $23.0 million expensed. We estimate additional costs in 2000 of approximately $1.5 million to continue implementing this system. In addition, we spent approximately $6.3 million for Year 2000 remedial activities not addressed by the global enterprise-wide management information system, including $4.3 million in 1999.

### CAUTIONARY STATEMENT FOR "SAFE HARBOR" PURPOSES UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

This Management's Discussion and Analysis of Financial Condition and Results of Operations and the letter "To Our Shareholders" from W. G. Bares, Chairman, President and Chief Executive Officer of Lubrizol, contain forward-looking statements within the meaning of the federal securities laws. As a general matter, forward-looking statements are those focused upon future plans, objectives or performance as opposed to historical items and include statements of anticipated events or trends and expectations and beliefs relating to matters not historical in nature. Such forward-looking statements are subject to uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control. Such uncertainties and factors could cause our actual results to differ materially from those matters expressed in or implied by such forward-looking statements.

We believe that the following factors, among others, could affect our future performance and cause our actual results to differ materially from those expressed or implied by forward-looking statements made in this annual report:

- the overall demand for lubricant additives on a worldwide basis, which has a slow growth rate in mature markets such as North America and Europe;
- the effect on our business resulting from economic uncertainty within the Asia-Pacific and Latin American regions;
- the lubricant additive demand in developing regions such as China and India, geographic areas which are an announced focus of our activities;
- technology developments that affect longer-term trends for lubricant additives, such as: improved engine design, fuel economy, longer oil drain intervals, alternative fuel powered engines and emission system compatibility;
- our success at continuing to develop proprietary technology to meet or exceed new industry performance standards and individual customer expectations;
- the frequency of change in industry performance standards, which affects the level and timing of our technology costs, the product life cycles and the relative quantity of additives required for new specifications;
- the rate of progress in continuing to reduce complexities and conversion costs and in modifying our cost structure to maintain and enhance our competitiveness;
- our success in strengthening and retaining relationships with lubricant additive customers, growing sales at targeted accounts, and expanding geographically;
- the extent to which we are successful in expanding beyond our core chemicals for transportation businesses and into new areas for our chemicals for industry businesses;
- our ability to identify, complete and integrate acquisitions for profitable growth;
- the recoveries, judgments, costs and future impact of legal proceedings, including those relating to intellectual property litigation with Exxon Corporation and its affiliates;
- the potential impact of consolidation among lubricant additive manufacturers and finished lubricant marketers;

- the relative degree of competitive and customer price pressure on lubricant additives;
- the cost, availability and quality of raw materials, including petroleum-based products, required for the manufacture of lubricant additives;
- the effects of fluctuations in currency exchange rates upon our reported results from international operations, together with non-currency risks of investing in and conducting significant operations in foreign countries, including those relating to political, social, economic and regulatory factors;
- the ability to achieve and timing of cost efficiencies resulting from the new enterprise-wide management information system;
- changes in significant government regulations affecting environmental compliance.

## QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Lubrizol operates manufacturing and blending facilities, laboratories and offices around the world and utilizes fixed and floating rate debt to finance our global operations. As a result, we are subject to business risks inherent in non-U.S. activities, including political and economic uncertainty, import and export limitations and market risk related to changes in interest rates and foreign currency exchange rates. We believe the political and economic risks related to our foreign operations are mitigated due to the stability of the countries in which our largest foreign operations are located.

In the normal course of business, we use derivative financial instruments including interest rate swaps and foreign currency forward exchange contracts to manage our market risks. Additional information regarding our financial instruments is contained in Notes 4 and 13 to the financial statements. Our objective in managing our exposure to changes in interest rates is to limit the impact of such changes on earnings and cash flow and to lower our overall borrowing costs. Our objective in managing the exposure to changes in foreign currency exchange rates is to reduce volatility on earnings and cash flow associated with such changes. Our principal currency exposures are in the major European currencies, the Japanese yen and certain Latin American currencies. We do not hold derivatives for trading purposes.

We measure our market risk, related to our holdings of financial instruments based on changes in interest rates and foreign currency rates utilizing a sensitivity analysis. The sensitivity analysis measures the potential loss in fair values, cash flows and income before tax based on a hypothetical 10% change (increase and decrease) in interest and currency exchange rates. We used current market rates on our debt and derivative portfolio to perform the sensitivity analysis. Certain items such as lease contracts, insurance contracts and obligations for pension and other post-retirement benefits were not included in the analysis.

Our primary interest rate exposures relate to our cash and short-term investments, fixed and variable rate debt and interest rate swaps. The calculation of potential loss in fair values is based on an immediate change in the net present values of our interest rate-sensitive exposures resulting from a 10% change in interest rates. The potential loss in cash flows and income before tax is based on the change in the net interest income/expense over a one-year period due to an immediate 10% change in rates. A hypothetical 10% change in interest rates would have a favorable/unfavorable impact on fair values of $19.9 million, cash flows of $.5 million and income before tax of $.5 million.

Our primary currency rate exposures are to foreign denominated debt, intercompany debt, cash and short-term investments and foreign currency forward exchange contracts. The calculation of potential loss in fair values is based on an immediate change in the U.S. dollar equivalent balances of our currency exposures due to a 10% shift in exchange rates. The potential loss in cash flows and income before tax is based on the change in cash flow and income before tax over a one-year period resulting from an immediate 10% change in currency exchange rates. A hypothetical 10% change in currency exchange rates would have a favorable/unfavorable impact on fair values of $4.5 million, cash flows of $10.5 million and income before tax of $3.4 million.

# Independent Auditors' Report

## To the Shareholders and Board of Directors of The Lubrizol Corporation

We have audited the accompanying consolidated balance sheets of The Lubrizol Corporation and its subsidiaries as of December 31, 1999 and 1998, and the related consolidated statements of income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 1999. These financial statements are the responsibility of the Corporation'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. 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, such consolidated financial statements present fairly, in all material respects, the financial position of The Lubrizol Corporation and its subsidiaries at December 31, 1999 and 1998, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1999 in conformity with generally accepted accounting principles.

Deloitte + Touche LLP

Cleveland, Ohio
February 3, 2000

# Consolidated Statements of Income

| *(In Thousands of Dollars Except Per Share Data)* | Year Ended December 31 1999 | 1998 | 1997 |
|---|---|---|---|
| Net sales | $1,743,541 | $1,614,558 | $1,669,251 |
| Royalties and other revenues | 4,462 | 3,361 | 4,531 |
| Total revenues | 1,748,003 | 1,617,919 | 1,673,782 |
| Cost of sales | 1,194,945 | 1,133,327 | 1,123,602 |
| Selling and administrative expenses | 181,292 | 179,759 | 171,244 |
| Research, testing and development expenses | 145,927 | 150,980 | 146,678 |
| Total cost and expenses | 1,522,164 | 1,464,066 | 1,441,524 |
| Special charges | (19,569) | (36,892) | |
| Gain from litigation settlements | 17,626 | 16,201 | |
| Other income (expense) – net | (6,704) | (1,152) | 5,104 |
| Interest income | 7,854 | 5,780 | 4,588 |
| Interest expense | (29,696) | (18,976) | (10,803) |
| Income before income taxes | 195,350 | 118,814 | 231,147 |
| Provision for income taxes | 72,358 | 47,614 | 76,278 |
| Net income | $ 122,992 | $ 71,200 | $ 154,869 |
| Net income per share | $2.25 | $1.27 | $2.68 |
| Net income per share, diluted | $2.25 | $1.27 | $2.66 |
| Dividends per share | $1.04 | $1.04 | $1.01 |

*The accompanying notes to financial statements are an integral part of these statements.*

# Consolidated Balance Sheets

| (In Thousands of Dollars) | December 31 1999 | 1998 |
|---|---|---|
| ASSETS | | |
| Cash and short-term investments | $ 185,465 | $ 53,639 |
| Receivables | 301,256 | 301,644 |
| Inventories | 258,149 | 277,612 |
| Other current assets | 35,572 | 54,575 |
| Total current assets | 780,442 | 687,470 |
| Property and equipment – at cost | 1,598,264 | 1,608,500 |
| Less accumulated depreciation | 927,752 | 889,650 |
| Property and equipment – net | 670,512 | 718,850 |
| Goodwill and intangible assets – net | 149,779 | 166,957 |
| Investments in non-consolidated companies | 30,441 | 26,490 |
| Other assets | 51,180 | 43,470 |
| TOTAL | $1,682,354 | $1,643,237 |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | |
| Short-term debt and current portion of long-term debt | $ 37,584 | $ 38,926 |
| Accounts payable | 138,841 | 112,832 |
| Accrued expenses and other current liabilities | 134,875 | 118,270 |
| Total current liabilities | 311,300 | 270,028 |
| Long-term debt | 365,372 | 390,394 |
| Postretirement health care obligation | 108,717 | 106,641 |
| Noncurrent liabilities | 45,054 | 48,950 |
| Deferred income taxes | 61,787 | 58,106 |
| Total liabilities | 892,230 | 874,119 |
| Contingencies and commitments | | |
| Preferred stock without par value – unissued | | |
| Common shares without par value – outstanding 54,477,292 shares in 1999 and 54,548,110 shares in 1998 | 85,984 | 84,651 |
| Retained earnings | 758,090 | 709,994 |
| Accumulated other comprehensive loss | (53,950) | (25,527) |
| Total shareholders' equity | 790,124 | 769,118 |
| TOTAL | $1,682,354 | $1,643,237 |

*The accompanying notes to financial statements are an integral part of these statements.*

# Consolidated Statements of Cash Flows

| *(In Thousands of Dollars)* | Year Ended December 31 1999 | 1998 | 1997 |
|---|---|---|---|
| CASH PROVIDED FROM (USED FOR): | | | |
| OPERATING ACTIVITIES: | | | |
| Net income | $ 122,992 | $ 71,200 | $ 154,869 |
| Adjustments to reconcile net income to cash provided by operating activities: | | | |
| Depreciation and amortization | 99,720 | 88,047 | 87,217 |
| Deferred income taxes | 1,312 | 5,732 | 8,585 |
| Special charges and asset impairments | 19,569 | 36,892 | 9,360 |
| Change in current assets and liabilities net of acquisitions and dispositions: | | | |
| Receivables | (10,749) | 3,870 | (47,313) |
| Inventories | 13,500 | 9,839 | (16,919) |
| Accounts payable, accrued expenses and other current liabilities | 28,408 | (41,749) | 46,524 |
| Other current assets | 19,052 | (17,012) | 4,101 |
| Change in noncurrent liabilities | 370 | 5,357 | (169) |
| Other items – net | (5,153) | (6,985) | (11,889) |
| Total operating activities | 289,021 | 155,191 | 234,366 |
| INVESTING ACTIVITIES: | | | |
| Proceeds from sale of investments | | 3,500 | 12,117 |
| Capital expenditures | (64,872) | (93,421) | (100,700) |
| Acquisitions and investments in nonconsolidated companies | (1,923) | (155,418) | (23,636) |
| Other – net | 2,246 | 749 | 5,164 |
| Total investing activities | (64,549) | (244,590) | (107,055) |
| FINANCING ACTIVITIES: | | | |
| Short-term borrowing (repayment) | (8,404) | 4,175 | 26,772 |
| Long-term borrowing | 5,000 | 203,059 | 5,572 |
| Long-term repayment | (24,447) | (5,515) | (4,159) |
| Debt issuance costs | | (10,523) | |
| Dividends paid | (56,757) | (58,256) | (58,469) |
| Common shares purchased, net of options exercised | (2,625) | (76,542) | (63,391) |
| Total financing activities | (87,233) | 56,398 | (93,675) |
| Effect of exchange rate changes on cash | (5,413) | 136 | (2,205) |
| Net increase (decrease) in cash and short-term investments | 131,826 | (32,865) | 31,431 |
| Cash and short-term investments at the beginning of year | 53,639 | 86,504 | 55,073 |
| Cash and short-term investments at the end of year | $ 185,465 | $ 53,639 | $ 86,504 |

*The accompanying notes to financial statements are an integral part of these statements.*

# Consolidated Statements of Shareholders' Equity

| (Dollars in Thousands) | Number of Shares Outstanding | Shareholders' Equity<br>Common Shares | Retained Earnings | Accumulated Other Comprehensive Income (Loss) | Total |
|---|---|---|---|---|---|
| BALANCE, DECEMBER 31, 1996 | 58,522,676 | $ 78,534 | $744,310 | $ (3,468) | $819,376 |
| Comprehensive income: | | | | | |
| Net income 1997 | | | 154,869 | | 154,869 |
| Other comprehensive loss | | | | (36,937) | (36,937) |
| Comprehensive income | | | | | 117,932 |
| Cash dividends | | | (58,469) | | (58,469) |
| Common shares – treasury: | | | | | |
| Shares purchased | (1,812,841) | (2,538) | (67,526) | | (70,064) |
| Shares issued upon exercise of stock options | 257,059 | 6,673 | | | 6,673 |
| BALANCE, DECEMBER 31, 1997 | 56,966,894 | 82,669 | 773,184 | (40,405) | 815,448 |
| Comprehensive income: | | | | | |
| Net income 1998 | | | 71,200 | | 71,200 |
| Other comprehensive income | | | | 14,878 | 14,878 |
| Comprehensive income | | | | | 86,078 |
| Cash dividends | | | (58,256) | | (58,256) |
| Common shares issued for subsidiary acquisition | 89,806 | 2,390 | | | 2,390 |
| Common shares – treasury: | | | | | |
| Shares purchased | (2,621,173) | (3,944) | (76,134) | | (80,078) |
| Shares issued upon exercise of stock options | 112,583 | 3,536 | | | 3,536 |
| BALANCE, DECEMBER 31, 1998 | 54,548,110 | 84,651 | 709,994 | (25,527) | 769,118 |
| Comprehensive income: | | | | | |
| Net income 1999 | | | 122,992 | | 122,992 |
| Other comprehensive loss | | | | (28,423) | (28,423) |
| Comprehensive income | | | | | 94,569 |
| Cash dividends | | | (70,938)* | | (70,938) |
| Common shares – treasury: | | | | | |
| Shares purchased | (139,600) | (220) | (3,958) | | (4,178) |
| Shares issued upon exercise of stock options | 68,782 | 1,553 | | | 1,553 |
| BALANCE, DECEMBER 31, 1999 | 54,477,292 | $ 85,984 | $758,090 | $(53,950) | $790,124 |

** Includes dividends declared and unpaid at December 31, 1999.*

*The accompanying notes to financial statements are an integral part of these statements.*

# Notes To Financial Statements

*(In Thousands of Dollars Unless Otherwise Indicated)*

## NOTE 1 – NATURE OF OPERATIONS

The Lubrizol Corporation is a fluid technology company concentrating on high performance chemicals, systems and services for transportation and industry. The company develops, produces and sells specialty additive packages and related equipment used in transportation and industrial finished lubricants. The company's products are created through the application of advanced chemical and mechanical technologies to enhance the performance, quality and value of the products in which they are used. The company groups its product lines into two operating segments: chemicals for transportation and chemicals for industry. Chemicals for transportation comprise approximately 83% of the company's consolidated revenues and 87% of segment pre-tax operating profit in 1999, respectively. Refer to Note 12 for a further description of the nature of the company's operations, the product lines within chemicals for transportation and chemicals for industry and related financial disclosures.

## NOTE 2 – ACCOUNTING POLICIES

CONSOLIDATION – The consolidated financial statements include the accounts of The Lubrizol Corporation and its subsidiaries where ownership is greater than 50% and the company has effective controlling financial interest. For nonconsolidated companies (affiliates), the equity method of accounting is used when ownership, unless temporary, exceeds 20% and when the company has the ability to exercise significant influence over the policies of the investee. The book value of investments carried at equity was $29.7 million and $25.8 million at December 31, 1999 and 1998, respectively. Investments carried at cost were $.7 million at December 31, 1999 and 1998.

ESTIMATES – The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions pending completion of related events. These estimates and assumptions affect the amounts reported at the date of the consolidated financial statements for assets, liabilities, revenues and expenses and the disclosure of contingencies. Actual results could differ from those estimates.

CASH EQUIVALENTS – The company generally invests any of its excess cash in short-term investments with various banks and financial institutions. Short-term investments are cash equivalents, as they are part of the cash management activities of the company and are comprised primarily of investments having maturities of three months or less when purchased.

INVENTORIES – Inventories are stated at the lower of cost or market value. Cost of inventories is determined by either first-in, first-out (FIFO) method or moving average method, except in the United States for chemical inventories, which are primarily valued using the last-in, first-out (LIFO) method.

PROPERTY AND EQUIPMENT – Property and equipment are carried at cost. Repair and maintenance costs are charged against income while renewals and betterments are capitalized as additions to the related assets. Costs incurred for computer software developed or obtained for internal use are capitalized for application development activities and immediately expensed for preliminary project activities or post-implementation activities. Accelerated depreciation methods are used in computing depreciation on certain machinery and equipment, which comprise approximately 21% of the depreciable assets. The remaining assets are depreciated using the straight-line method. The estimated useful lives are 10 to 40 years for buildings and land improvements and range from 3 to 20 years for machinery and equipment.

GOODWILL AND INTANGIBLE ASSETS – Intangibles resulting from business acquisitions including costs in excess of net assets of businesses acquired (goodwill), purchased technology and trademarks are being amortized on a straight-line method over periods ranging from 5 to 25 years. The recoverability of goodwill and intangible assets is evaluated at the business unit level by analysis of operating results and consideration of other significant events or changes in the business environment. If a business unit has operating losses and based upon projections there is a likelihood that such operating losses will continue, the company will evaluate whether impairment exists on the basis of undiscounted expected future cash flows from operations before interest for the remaining amortization period.

RESEARCH, TESTING AND DEVELOPMENT – Research, testing and development costs are expensed as incurred. Research and development expenses, excluding testing, were $78.3 million in 1999 and 1998, and $88.4 million in 1997.

ENVIRONMENTAL LIABILITIES – The company accrues for expenses associated with environmental remediation obligations when such expenses are probable and reasonably estimable. Such accruals are adjusted as further information develops or circumstances change. Costs of future expenditures for environmental remediation obligations are not discounted to their present value. The Company's environmental reserves totaled $7.4 million and $7.9 million at December 31, 1999 and 1998, respectively. Of these amounts, $1.0 million was included in other current liabilities at December 31, 1999 and 1998.

FOREIGN CURRENCY TRANSLATION – The assets and liabilities of certain of the company's international subsidiaries are translated into U.S. dollars at exchange rates in effect at the balance sheet date, and revenues and expenses are translated at weighted average exchange rates in effect during the period. Unrealized translation adjustments are recorded as a component of other comprehensive income in shareholders' equity, except for subsidiaries for which the functional currency is the

# Notes continued

U.S. dollar, where translation adjustments are realized in income. Transaction gains or losses that arise from exchange rate changes on transactions denominated in a currency other than the functional currency, except those transactions that function as a hedge of an identifiable foreign currency commitment or as a hedge of a foreign currency investment, are included in income as incurred.

SHARE REPURCHASES – The company utilizes the par value method of accounting for its treasury shares. Under this method, the cost to reacquire shares in excess of paid-in capital related to those shares is charged against retained earnings.

REVENUE RECOGNITION – Substantially all revenues are recognized at the time of shipment of products to customers with appropriate provision for uncollectible accounts.

PER SHARE AMOUNTS – Net income per share is computed by dividing net income by average common shares outstanding during the period. Net income per diluted share includes the dilution effect resulting from outstanding stock options and stock awards. Per share amounts are computed as follows:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Numerator: | | | |
| Net income available to common shareholders | $122,992 | $ 71,200 | $154,869 |
| Denominator: | | | |
| Weighted average common shares outstanding | 54,577 | 55,939 | 57,843 |
| Dilutive effect of stock options and awards | 139 | 183 | 386 |
| Denominator for net income per share, diluted | 54,716 | 56,122 | 58,229 |
| Net income per share | $2.25 | $1.27 | $2.68 |
| Net income per share, diluted | $2.25 | $1.27 | $2.66 |

ACCOUNTING FOR DERIVATIVE INSTRUMENTS – In June 1998, the Financial Accounting Standards Board (FASB) issued Statement of Financial Standards (SFAS) 133, "Accounting for Derivative Instruments and Hedging Activities," which was to become effective for the company no later than January 1, 2000. In June 1999, the FASB delayed the required effective date for SFAS 133, which delayed the required effective date for the company until January 1, 2001. SFAS 133 establishes accounting and reporting standards for derivative instruments and for hedging activities. It requires that all derivatives be measured at fair value and recognized as either assets or liabilities in the balance sheet. The accounting for changes in the fair value of a derivative (that is, gains or losses) depends on the intended use of the derivative and its resulting hedge designation. The company uses derivative financial instruments only to manage well-defined foreign currency and interest rate risks. The company does not use derivative financial instruments for trading purposes. The company is currently evaluating the requirements of SFAS 133 but has not yet determined the impact on its financial position and results of operations when adopted.

## NOTE 3 – INVENTORIES

| | 1999 | 1998 |
|---|---|---|
| Finished products | $118,135 | $112,060 |
| Products in process | 56,855 | 66,485 |
| Raw materials | 66,102 | 80,134 |
| Supplies and engine test parts | 17,057 | 18,933 |
| | $258,149 | $277,612 |

Inventories on the LIFO method were 28% and 27% of consolidated inventories at December 31, 1999 and 1998, respectively. The current replacement cost of these inventories exceeded the LIFO cost at December 31, 1999 and 1998, by $42.7 million and $41.1 million, respectively.

## NOTE 4 – SHORT-TERM AND LONG-TERM DEBT

| | 1999 | 1998 |
|---|---|---|
| Long-term debt consists of: | | |
| 5.875% notes, due 2008 | $200,000 | $200,000 |
| 7.25% debentures, due 2025 | 100,000 | 100,000 |
| Debt supported by long-term banking arrangements: | | |
| Commercial paper at weighted average rates of 6.6% and 5.6% | 50,000 | 50,000 |
| 6.5% Marine terminal refunding revenue bonds, due 2000 | 18,375 | 18,375 |
| Term loans: | | |
| Dollar denominated, at 5.0% due 2000 | 4,160 | 4,204 |
| Yen denominated, at 1.6% to 2.8%, due 2000-2003 | 19,766 | 18,656 |
| Deutsche mark denominated, 4.1% to 6.0% | | 19,648 |
| French franc denominated, at 3.5% to 5.0%, due 2000-2008 | 495 | 645 |
| | 392,796 | 411,528 |
| Less current portion | (27,424) | (21,134) |
| | $365,372 | $390,394 |
| Short-term debt consists of: | | |
| Commercial paper at weighted average rate of 5.6% | | $ 5,300 |
| Other short-term debt at weighted average rates of 2.6% and 2.8% | $ 10,160 | 12,492 |
| Current portion of long-term debt | 27,424 | 21,134 |
| | $ 37,584 | $ 38,926 |

In November 1998, the company issued notes having an aggregate principal amount of $200 million. The notes are unsecured, senior obligations of the company that mature on December 1,

2008, and bear interest at 5.875% per annum, payable semi-annually on June 1 and December 1 of each year. The notes have no sinking fund requirement but are redeemable, in whole or in part, at the option of the company. The company incurred debt issuance costs aggregating $10.5 million, including a loss of $6.5 million related to closed Treasury rate lock agreements originally entered into as a hedge against changes in interest rates relative to the anticipated issuance of these notes. Debt issuance costs are deferred and then amortized as a component of interest expense over the term of the notes. Including debt issuance costs, these notes have an effective annualized interest rate of 6.6% to the company.

The company issued debentures in June 1995 having an aggregate principal amount of $100 million. These debentures are unsecured, senior obligations of the company that mature on June 15, 2025, and bear interest at an annualized rate of 7.25%, payable semi-annually on June 15 and December 15 of each year. The debentures are not redeemable prior to maturity and are not subject to any sinking fund requirements.

Effective July 1, 1999, the company decreased its committed revolving credit facilities from $300 million to $150 million. These credit facilities expire on June 30, 2003, subject to annual extension provisions. These facilities, which were unused at December 31, 1999, permit the company to borrow at or below the U.S. prime rate. These facilities also permit the company to refinance beyond one year $150 million of debt, which by its terms is due within one year. As permitted by these and previously existing credit facilities, the company classified as long-term at each balance sheet date the portion of commercial paper borrowings expected to remain outstanding throughout the following year and for December 31, 1998, the amount due under the Marine Terminal Refunding Revenue Bonds, whose bondholders have the right to put the bonds back to the company.

Amounts due on long-term debt are $27.4 million in 2000, $3.6 million in 2001, $1.5 million in 2002, $59.8 million in 2003, $.1 million in 2004 and $300.4 million thereafter.

The company has an interest rate swap agreement that effectively converts variable rate interest payable on $18.4 million of Marine Terminal Refunding Revenue Bonds due July 1, 2000, to a fixed rate of 6.5%. The company also has interest rate swap agreements, which expire in March 2005, that exchange variable rate interest obligations on a notional principal amount of $50 million for a fixed rate of 7.6% (see Note 13).

Interest paid, net of amounts capitalized, amounted to $28.8 million, $18.3 million and $10.9 million during 1999, 1998 and 1997, respectively. The company capitalizes interest on qualifying capital projects. The amount of interest capitalized during 1999, 1998 and 1997 amounted to $.1 million, $1.2 million and $2.1 million, respectively.

## NOTE 5 – OTHER BALANCE SHEET INFORMATION

| Receivables: | 1999 | 1998 |
|---|---|---|
| Customers | $273,054 | $269,264 |
| Affiliates | 9,013 | 8,976 |
| Other | 19,189 | 23,404 |
| | $301,256 | $301,644 |

Receivables are net of allowance for doubtful accounts of $4.1 million in 1999 and $2.2 million in 1998.

| Property and Equipment – at cost: | 1999 | 1998 |
|---|---|---|
| Land and improvements | $ 105,984 | $ 107,712 |
| Buildings and improvements | 305,505 | 299,024 |
| Machinery and equipment | 1,145,936 | 1,145,471 |
| Construction in progress | 40,839 | 56,293 |
| | $1,598,264 | $1,608,500 |

Depreciation and amortization of property and equipment was $88.3 million in 1999, $79.7 million in 1998 and $82.7 million in 1997.

| Goodwill and Intangible Assets: | 1999 | 1998 |
|---|---|---|
| Goodwill | $151,492 | $157,380 |
| Intangible assets | 34,411 | 34,271 |
| | 185,903 | 191,651 |
| Less accumulated amortization | 36,124 | 24,694 |
| | $149,779 | $166,957 |

| Accrued Expenses and Other Current Liabilities: | 1999 | 1998 |
|---|---|---|
| Employee compensation | $ 48,441 | $ 36,094 |
| Income taxes | 25,890 | 16,910 |
| Taxes other than income | 22,081 | 20,675 |
| Special charges and acquisition assimilation costs | 11,526 | 18,738 |
| Other | 26,937 | 25,853 |
| | $134,875 | $118,270 |

| Noncurrent Liabilities: | 1999 | 1998 |
|---|---|---|
| Employee benefits | $30,000 | $33,976 |
| Other | 15,054 | 14,974 |
| | $45,054 | $48,950 |

## NOTE 6 – SHAREHOLDERS' EQUITY

The company has 147 million authorized shares consisting of 2 million shares of serial preferred stock, 25 million shares of serial preference shares and 120 million common shares, each of which is without par value. Common shares outstanding exclude common shares held in treasury of 31,718,602 and 31,648,000 at December 31, 1999 and 1998 respectively.

The company has a shareholder rights plan under which one right to buy one-half common share has been distributed for

each common share held. The rights may become exercisable under certain circumstances involving actual or potential acquisitions of 20% or more of the common shares by a person or affiliated persons who acquire such stock without complying with the requirements of the company's articles of incorporation. The rights would entitle shareholders, other than such person or affiliated persons, to purchase common shares of the company or of certain acquiring persons at 50% of then current market value. At the option of the directors, the rights may be exchanged for common shares, and may be redeemed in cash, securities or other consideration. The rights will expire in 2007 unless redeemed earlier.

Accumulated other comprehensive income (loss) shown in the consolidated statements of shareholders' equity at December 31, 1999, 1998 and 1997 is comprised of the following, net of tax effects:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Foreign currency translation adjustments | $(27,923) | $14,840 | $(36,941) |
| Pension plan minimum liability | (838) | | |
| Income tax benefit | 338 | 38 | 4 |
| | $(28,423) | $14,878 | $(36,937) |

## NOTE 7 – OTHER INCOME (EXPENSE) – NET

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Equity earnings of nonconsolidated companies | $ 5,735 | $ 2,602 | $ 4,804 |
| Amortization of goodwill and intangible assets | (11,430) | (7,512) | (3,764) |
| Currency exchange/ transaction gain (loss) | (3,108) | (1,260) | 2,398 |
| Other – net | 2,099 | 5,018 | 1,666 |
| | $ (6,704) | $(1,152) | $ 5,104 |

## NOTE 8 – INCOME TAXES

The provision for income taxes is based upon income before tax for financial reporting purposes. Deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the tax bases of assets and liabilities and their carrying values for financial reporting purposes. In estimating future tax consequences, the company considers anticipated future events, except changes in tax laws or rates, which are recognized when enacted.

Income before income taxes consists of the following:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| United States | $113,904 | $ 78,305 | $154,589 |
| Foreign | 81,446 | 40,509 | 76,558 |
| Total | $195,350 | $118,814 | $231,147 |

The provision for income taxes consists of the following:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Current: | | | |
| United States | $46,983 | $16,649 | $35,556 |
| Foreign | 24,063 | 25,233 | 32,137 |
| | 71,046 | 41,882 | 67,693 |
| Deferred: | | | |
| United States | (3,467) | 3,385 | 8,784 |
| Foreign | 4,779 | 2,347 | (199) |
| | 1,312 | 5,732 | 8,585 |
| Total | $72,358 | $47,614 | $76,278 |

The United States tax provision includes the U.S. tax on foreign income distributed to the company. The portion of the tax provision for taxes outside the United States includes withholding taxes.

The differences between the provision for income taxes at the U.S. statutory rate and the tax shown in the consolidated statements of income are summarized as follows:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Tax at statutory rate of 35% | $68,373 | $41,585 | $80,901 |
| State and local taxes | 2,815 | 2,261 | 2,683 |
| Foreign sales corporation earnings | (1,923) | (3,152) | (4,704) |
| Equity income | (875) | (859) | (2,775) |
| Foreign deferred tax valuation allowance | (3,904) | 4,878 | (60) |
| Other foreign tax differences | 3,954 | 5,995 | 3,523 |
| Other – net | 3,918 | (3,094) | (3,290) |
| Provision for income taxes | $72,358 | $47,614 | $76,278 |

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and liabilities at December 31 are as follows:

| | 1999 | 1998 |
|---|---|---|
| Deferred tax assets: | | |
| Accrued compensation and benefits | $ 48,858 | $ 48,178 |
| Intercompany profit in inventory | 11,322 | 11,131 |
| Net operating losses carried forward | 12,305 | 18,284 |
| Other | 8,665 | 8,574 |
| Total gross deferred tax assets | 81,150 | 86,167 |
| Less valuation allowance | 5,153 | 9,057 |
| Net deferred tax assets | 75,997 | 77,110 |
| Deferred tax liabilities: | | |
| Depreciation and other basis differences | 99,938 | 101,658 |
| Undistributed foreign equity income | 5,566 | 3,894 |
| Inventory basis differences | 1,497 | 3,706 |
| Other | 3,977 | 2,986 |
| Total gross deferred tax liabilities | 110,978 | 112,244 |
| Net deferred tax liabilities | $(34,981) | $(35,134) |

At December 31, 1999, certain foreign subsidiaries have net operating loss carryforwards of $37.8 million for income tax purposes, of which $5.9 million expire in years 2000 through 2009 and $31.9 million has no expiration. After evaluating tax planning strategies and historical and projected profitability, a valuation allowance has been recognized to reduce the deferred tax assets related to those carryforwards to the amount expected to be realized. The net change in the total valuation allowance for the years ended December 31, 1999, 1998 and 1997, was a decrease of $3.9 million, an increase of $4.9 million and a decrease of $.1 million, respectively.

U.S. income taxes or foreign withholding taxes are not provided on undistributed earnings of foreign subsidiaries, which are considered to be indefinitely reinvested in the operations of such subsidiaries. The amount of such earnings was approximately $411.5 million at December 31, 1999. Determination of the net amount of unrecognized U.S. income tax with respect to these earnings is not practicable.

Income taxes paid during 1999, 1998 and 1997 amounted to $59.1 million, $52.0 million and $53.0 million, respectively.

## NOTE 9 – PENSION, PROFIT SHARING AND OTHER POSTRETIREMENT BENEFIT PLANS

The company has noncontributory defined benefit pension plans covering most employees. Pension benefits under these plans are based on years of service and the employee's compensation. The company's funding policy in the United States is to contribute amounts to satisfy the Internal Revenue Service funding standards and elsewhere to fund amounts in accordance with local regulations. Several of the company's defined benefit plans are not funded. Plan assets are invested principally in marketable equity securities and fixed income instruments.

The company also provides certain non-pension postretirement benefits, primarily health care and life insurance benefits, for retired employees. Substantially all of the company's full-time employees in the U.S. become eligible for these benefits after attaining specified years of service and age 55 at retirement. Participants contribute a portion of the cost of such benefits. The company's non-pension postretirement benefit plans are not funded.

Net periodic pension cost of the company's defined benefit pension plans consists of:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Service cost – benefits earned during period | $ 11,843 | $ 11,142 | $ 10,269 |
| Interest cost on projected benefit obligation | 17,589 | 17,519 | 17,704 |
| Expected return on plan assets | (25,873) | (23,818) | (21,976) |
| Amortization of prior service costs | 1,771 | 1,718 | 1,827 |
| Amortization of initial net (asset) obligation | (1,264) | (753) | (1,295) |
| Recognized net actuarial (gain) loss | 507 | (381) | (127) |
| Settlement (gain) | (5,474) | | |
| Net periodic pension cost | $ (901) | $ 5,427 | $ 6,402 |

The company also has defined contribution plans, principally involving profit sharing plans and a 401(k) savings plan, covering most employees in the United States and at certain non-U.S. subsidiaries. Expense for all defined contribution retirement plans was $9.0 million in 1999, $8.1 million in 1998 and $9.9 million in 1997.

As discussed in Note 15, the company initiated a cost reduction program and recognized special termination benefits of $11.6 million in 1999, $3.1 million and $8.5 million of which were included in the special charges recognized in the first and third quarters of 1999, respectively. The company also recognized a settlement gain of $10.0 million in the fourth quarter of 1999 in the United States, $4.5 million of which was recorded as an adjustment to the special charge and $5.5 million recorded as a reduction in net periodic pension cost. The company also recognized special termination benefits of $18.3 million in 1998, which were included in the special charge recognized in the fourth quarter of 1998.

Net non-pension postretirement benefit cost consists of:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Service cost – benefits earned during period | $ 1,468 | $ 1,250 | $ 1,465 |
| Interest cost on accumulated benefit obligation | 4,728 | 4,415 | 4,989 |
| Amortization of prior service costs | (3,218) | (3,218) | (3,218) |
| Recognized net actuarial (gain) loss | 23 | (252) | |
| Net non-pension postretirement benefits cost | $ 3,001 | $ 2,195 | $ 3,236 |

# Notes continued

The change in benefit obligation, change in plan assets of the company's defined benefit pension and non-pension postretirement plans and the amounts recognized in the consolidated balance sheets at December 31 are as follows:

| | Pension Plans | | Other Benefits | |
|---|---|---|---|---|
| | 1999 | 1998 | 1999 | 1998 |
| Change in benefit obligation: | | | | |
| Benefit obligation at beginning of year | $297,483 | $254,263 | $ 72,047 | $ 61,460 |
| Service cost | 11,843 | 11,142 | 1,468 | 1,250 |
| Interest cost | 17,589 | 17,519 | 4,728 | 4,415 |
| Plan participants' contributions | 48 | | | |
| Actuarial (gain) loss | (23,048) | 27,096 | (4,281) | 8,352 |
| Currency exchange rate change | (1,104) | 2,834 | 49 | (80) |
| Amendments | 647 | 709 | | |
| Curtailments | (632) | (195) | | |
| Settlements | (3,325) | | | |
| Special termination benefits | 1,691 | 4,684 | | |
| Other | 857 | | | |
| Benefits paid | (37,172) | (20,569) | (2,511) | (3,350) |
| Benefit obligation at end of year | 264,877 | 297,483 | 71,500 | 72,047 |
| Change in plan assets: | | | | |
| Fair value of plan assets at beginning of year | 300,573 | 298,130 | | |
| Actual return on plan assets | 54,984 | 16,786 | | |
| Employer contributions | 6,510 | 4,719 | 2,511 | 3,350 |
| Plan participants' contributions | 48 | | | |
| Currency exchange rate change | (1,003) | 896 | | |
| Other | 594 | | | |
| Benefits paid | (37,172) | (19,958) | (2,511) | (3,350) |
| Fair value of plan assets at end of year | 324,534 | 300,573 | | |
| Plan assets greater (less) than the benefit obligation | 59,657 | 3,090 | (71,500) | (72,047) |
| Unrecognized net loss (gain) | (52,315) | (7,981) | (5,521) | (1,225) |
| Unrecognized net transition obligation (asset) | (3,853) | (5,571) | | |
| Unrecognized prior service cost | 8,472 | 9,785 | (27,402) | (30,620) |
| Net amount recognized | $ 11,961 | $ (677) | $(104,423) | $(103,892) |
| Amount recognized in the statement of financial position consists of: | | | | |
| Prepaid benefit cost | $ 26,027 | $ 15,885 | | |
| Accrued benefit liability | (16,211) | (20,120) | $(104,423) | $(103,892) |
| Accumulated other comprehensive income | 838 | | | |
| Intangible asset | 1,307 | 3,558 | | |
| Net amount recognized | $ 11,961 | $ (677) | $(104,423) | $(103,892) |

| | Pension Plans | | Other Benefits | |
|---|---|---|---|---|
| | 1999 | 1998 | 1999 | 1998 |
| The weighted average assumptions as of December 31: | | | | |
| Discount rate for determining funded status | 6.91% | 6.08% | 7.70% | 6.71% |
| Expected return on plan assets | 8.60% | 9.01% | | |
| Rate of compensation increase | 3.94% | 3.78% | | |

The projected benefit obligation and fair value of plan assets for pension plans with projected benefit obligations in excess of plan assets were $29.8 million and $10.2 million, respectively, as of December 31, 1999, and $123.1 million and $97.2 million, respectively, as of December 31, 1998. The accumulated benefit obligation and fair value of plan assets for pension plans with accumulated benefit obligations in excess of plan assets were $23.7 million and $9.5 million, respectively, as of December 31, 1999, and $31.6 million, and $13.9 million, respectively, as of December 31, 1998.

The weighted average of the assumed health care cost trend rates used in measuring the accumulated postretirement benefit obligation for the company's postretirement benefit plans at December 31, 1999, was 6.73%, (7.45% at December 31, 1998), with subsequent annual decrements to an ultimate trend rate of 5.00%. The assumed health care cost trend rates have a significant effect on the amounts reported for the health care plan. A one-percentage-point change in the assumed health care cost trend rate would have the following effects as of and for the year ended December 31, 1999:

| | One-Percentage-Point | |
|---|---|---|
| | Increase | Decrease |
| Effect on postretirement benefit obligation | $12,129 | $(9,344) |
| Effect on total service and interest cost components | $ 1,363 | $(1,028) |

## NOTE 10 – LEASES

The company has commitments under operating leases primarily for office space, terminal facilities, land, railroad tank cars and various computer and office equipment. Rental expense was $18.5 million in 1999, $18.7 million in 1998 and $13.8 million in 1997. Future minimum rental commitments under operating leases having initial or remaining noncancelable lease terms exceeding one year are $13.6 million in 2000, $9.0 million in 2001, $5.0 million in 2002, $3.9 million in 2003, $3.6 million in 2004 and $13.9 million thereafter.

## NOTE 11 – ACQUISITIONS

In 1998, the company completed six acquisitions for cash of $155.4 million and one acquisition for 89,806 of the company's common shares valued at $2.4 million. These acquisitions were in the company's existing business areas of lubricant and fuel additives, metalworking additives and coating additives and broaden the company's base in performance chemicals. These acquisitions were accounted for using the purchase method of accounting.

The fair value of assets acquired and liabilities assumed in these acquisitions is as follows:

| | |
|---|---|
| Inventories | $ 20,713 |
| Receivables | 26,424 |
| Property and equipment | 8,502 |
| Other tangible assets | 2,986 |
| Goodwill | 97,882 |
| Technology and other intangibles | 16,173 |
| Technology under development | 13,598 |
| Accounts payable and other liabilities assumed | (28,470) |
| Fair value of net assets acquired, less $2,165 of cash received | $157,808 |

These acquisitions were made at various times throughout the year; however, the two largest acquisitions were Adibis, formerly the lubricants and fuel additives business of British Petroleum Company P.L.C., which was acquired effective August 1, 1998, and Carroll Scientific, Inc., (Carroll), which was acquired in July 1998. Carroll specializes in the development and supply of varnish and wax-based performance additives to the ink market. The aggregate purchase price of these two acquisitions was $134 million, of which $111 million was assigned to goodwill and intangible assets. During 1997, the annual revenues of Carroll were approximately $30 million and of Adibis were approximately $150 million.

The impact of the acquisitions made in 1998 was not material in relation to the company's results of operations; consequently, pro forma information is not presented. However, these acquisitions had the following impact on revenues and expenses for 1998:

| | |
|---|---|
| Revenues | $71,662 |
| Gross profit | $15,267 |
| Selling and administration expenses | $ 7,397 |
| Research, testing and development | $ 5,591 |
| After-tax loss, excluding write-off of technology under development and interest on acquisition debt | $ (1,844) |

In the fourth quarter of 1999, the company reduced the purchase price of the Adibis acquisition by $2.5 million for anticipated reimbursement from the seller of certain post-acquisition costs incurred by the company.

The company has substantially completed the process of assimilating the Adibis additives business. The company's assimilation plan included separation of a number of Adibis employees at an estimated cost of $3.9 million and terminating certain Adibis contracts for tolling arrangements, office leases and sales agents at an estimated cost of $2.7 million. Cash expenditures of $5.7 million were made in 1999 and approximately $.9 million remains as an accrued liability at December 31, 1999. The cost of these activities was included in the allocation of the acquisition costs to the net assets acquired.

The company engaged an independent appraiser to provide a basis for allocating the purchase price of Adibis to the acquired intangible assets for financial reporting purposes. The appraisal included the determination of the amount to be assigned to technology under development which, under purchase accounting, is written off against income in the period of acquisition. Technology under development comprises ongoing research and development projects that may form the basis for new products or replacements for existing products. The fair

# Notes continued

value assigned to the Adibis technology under development was determined by the independent appraiser applying the income approach and a valuation model, incorporating among other assumptions revenue and expense projections, probability of success and present value factors. The resulting value allocated to each of the technology projects under development represents the product of the present value of debt-free cash flows and the percent of research and development completed. The fair value of technology under development was comprised of three projects within engine oil additives aggregating $7.1 million; six projects within fuel additives aggregating $3.4 million; and two projects within marine diesel additives aggregating $3.1 million. The amount of the purchase price allocated to technology under development was $13.6 million and was charged against income in the fourth quarter of 1998 upon completion of the appraisal.

## NOTE 12 – BUSINESS SEGMENTS AND GEOGRAPHIC REPORTING

The company aggregates its product lines into two principal operating segments: chemicals for transportation and chemicals for industry. Chemicals for transportation is comprised of additives for lubricating engine oils, such as for gasoline, diesel, marine and stationary gas engines and additive components to its larger customers; additives for driveline oils, such as automatic transmission fluids, gear oils and tractor lubricants; and additives for fuel products and refinery and oil field chemicals. In addition, the company sells additive components and viscosity improvers within its lubricant and fuel additives product lines. The company's chemicals for transportation product lines are generally produced in shared manufacturing facilities and sold largely to a common customer base. Chemicals for industry includes industrial additives, such as additives for hydraulic fluids, metalworking fluids and compressor lubricants; performance chemicals, such as additives for coatings and inks and process chemicals; and performance systems, comprised principally of fluid metering devices and particulate emission trap devices.

The company's accounting policies for its operating segments are the same as those described in Note 2. The company evaluates performance and allocates resources based on segment contribution income, which is revenues less expenses directly identifiable to the product lines aggregated within each segment. In addition, the company allocates corporate research, testing, selling and administrative expenses in arriving at segment operating profit before tax.

The following table presents a summary of the company's reportable segments for the years ended December 31:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Chemicals for transportation: | | | |
| Revenues from external customers | $1,448,978 | $1,361,306 | $1,446,342 |
| Equity earnings | 5,340 | 2,434 | 4,540 |
| Goodwill and intangibles amortization | 5,012 | 2,964 | 1,239 |
| Segment contribution income | 307,411 | 238,076 | 322,377 |
| Operating profit before tax | 191,654 | 130,149 | 213,184 |
| Segment total assets | 1,116,680 | 1,191,175 | 1,076,153 |
| Capital expenditures | 58,123 | 90,369 | 98,482 |
| Depreciation | 82,129 | 74,023 | 76,134 |
| Chemicals for industry: | | | |
| Revenues from external customers | $ 299,025 | $ 256,613 | $ 227,440 |
| Equity earnings | 395 | 168 | 264 |
| Goodwill and intangibles amortization | 6,418 | 5,414 | 3,274 |
| Segment contribution income | 41,636 | 33,959 | 37,302 |
| Operating profit before tax | 27,481 | 22,552 | 24,178 |
| Segment total assets | 247,779 | 256,905 | 194,492 |
| Capital expenditures | 6,749 | 3,052 | 2,218 |
| Depreciation | 6,161 | 5,646 | 6,570 |
| Reconciliation to consolidated income before tax: | | | |
| Segment operating profit before tax | $ 219,135 | $ 152,701 | $ 237,362 |
| Gain from litigation settlements | 17,626 | 16,201 | |
| Special charges | (19,569) | (36,892) | |
| Interest expense – net | (21,842) | (13,196) | (6,215) |
| Consolidated income before tax | $ 195,350 | $ 118,814 | $ 231,147 |
| Revenues from external customers by product group: | | | |
| Engine oil additives | $ 916,755 | $ 844,614 | $ 920,971 |
| Driveline oil additives | 408,488 | 384,880 | 400,154 |
| Fuel additives and refinery oil additives | 103,271 | 78,023 | 69,904 |
| Additive components | 20,464 | 53,789 | 55,313 |
| Chemicals for transportation | 1,448,978 | 1,361,306 | 1,446,342 |
| Industrial additives | 156,996 | 149,087 | 133,200 |
| Performance chemicals | 108,189 | 84,478 | 73,702 |
| Performance systems | 33,840 | 23,048 | 20,538 |
| Chemicals for industry | 299,025 | 256,613 | 227,440 |
| Total revenues from external customers | $1,748,003 | $1,617,919 | $1,673,782 |

Prior-year revenues from external customers by product group within the chemicals for transportation segment have been restated to reflect a change in the way the company reports these revenues for internal management reporting.

Revenues are attributable to countries based on the location of the customer. The United States is the only country where sales to external customers comprise in excess of 10% of the company's consolidated revenues. Revenues from external customers by geographic area are as follows:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| United States | $ 673,579 | $ 605,145 | $ 602,918 |
| Other North American | 60,775 | 50,685 | 53,030 |
| Europe, Middle East | 572,854 | 551,633 | 539,654 |
| Asia-Pacific | 314,715 | 262,341 | 315,426 |
| Latin America | 126,080 | 148,115 | 162,754 |
| Total revenues from external customers | $1,748,003 | $1,617,919 | $1,673,782 |

The company's sales and receivables are concentrated in the oil and chemical industries. The company's lubricant and fuel additive customers consist primarily of oil refiners and independent oil blenders and are located in more than 100 countries. The ten largest customers, most of which are international oil companies and a number of which are groups of affiliated entities, comprised approximately 46% of consolidated sales in 1999, 42% of consolidated sales in 1998 and 44% of consolidated sales in 1997. The company's largest single customer, including its affiliated entities, accounted for revenues of $210.4 million in 1999, predominately within chemicals for transportation segment, less than 10% in 1998 and revenues of $161.2 million in 1997, predominately within chemicals for transportation segment.

The table below presents a reconciliation of segment total assets to consolidated total assets for the years ended December 31:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| Total segment assets | $1,364,459 | $1,448,080 | $1,270,645 |
| Corporate assets | 317,895 | 195,157 | 191,647 |
| Total consolidated assets | $1,682,354 | $1,643,237 | $1,462,292 |

Segment assets include receivables, inventories and long-lived assets including goodwill and intangible assets. Corporate assets include cash and short-term investments, investments accounted for on the cost basis and other current and noncurrent assets.

The company's principal long-lived assets are located in the following countries at December 31:

| | 1999 | 1998 |
|---|---|---|
| United States | $519,050 | $554,983 |
| France | 91,413 | 109,990 |
| England | 124,138 | 134,127 |
| All other | 85,690 | 86,707 |
| Total long-lived assets | $820,291 | $885,807 |

Net income of non-U.S. subsidiaries was $53 million in 1999, $13 million in 1998 and $43 million in 1997; and dividends received from these subsidiaries were $22 million, $15 million and $7 million, respectively.

## NOTE 13 – FINANCIAL INSTRUMENTS

The company has various financial instruments, including cash and short-term investments, investments in nonconsolidated companies, foreign currency forward contracts, interest rate swaps and short- and long-term debt. The company has determined the estimated fair value of these financial instruments by using available market information and generally accepted valuation methodologies. The use of different market assumptions or estimation methodologies could have a material effect on the estimated fair value amounts. The estimated fair value of the company's debt instruments at December 31, 1999, approximates $375.5 million compared with the carrying value of $403.0 million. The company believes the carrying values of its other financial instruments approximate their fair values, except for certain interest rate swap agreements discussed below. The company uses derivative financial instruments only to manage well-defined foreign currency and interest rate risks. The company does not use derivative financial instruments for trading purposes.

The company is exposed to the effect of changes in foreign currency rates on its earnings and cash flow as a result of doing business internationally. In addition to working capital management, pricing and sourcing, the company selectively uses foreign currency forward contracts to lessen the potential effect of currency changes. Such contracts are generally in connection with transactions with maturities of less than one year.

# Notes continued

The maximum amount of foreign currency forward contracts outstanding at any one time was $18.9 million in 1999, $65.0 million in 1998 and $58.4 million in 1997. At December 31, 1999, the company had short-term forward contracts to sell currencies at various dates during 2000 for $7.5 million. Realized and unrealized gains or losses on these contracts are recorded in the statement of income, or in the case of transactions designated as hedges of net foreign investments, in the foreign currency translation adjustment account in other comprehensive income. Additionally, foreign currency forward contract gains and losses on certain future transactions may be deferred until the future transaction is recorded. There were no deferred currency losses on foreign exchange contracts at December 31, 1999.

The company is exposed to market risk from changes in interest rates. The company's policy is to manage interest rate cost using a mix of fixed and variable rate debt. To manage this mix in a cost-efficient manner, the company may enter into interest rate swaps, in which the company agrees to exchange, at specified intervals, the difference between fixed and variable interest amounts calculated by reference to an agreed-upon notional principal amount. The company has entered into interest rate swap agreements to convert variable rate debt to fixed rates (see Note 4). Interest payments receivable and payable under the terms of the interest rate swap agreements are accrued over the period to which the payment relates and the net difference is treated as an adjustment of interest expense related to the underlying liability. Changes in the underlying market value of the remaining swap payments are recognized in income when the underlying liability being hedged is extinguished or partially extinguished to a level less than the notional amount of the interest rate swaps. Consequently, market value losses of $1.0 million were accrued in 1997 and no amounts were accrued in 1998 or 1999. The company would have paid approximately $2.4 million, including accrued interest of $.9 million, if it had terminated these interest rate swap agreements at December 31, 1999.

## NOTE 14 – STOCK COMPENSATION PLANS

The 1991 Stock Incentive Plan provides for granting of restricted and unrestricted shares and options to buy common shares up to an amount equal to 1% of the outstanding common shares at the beginning of any year, plus any unused amount from prior years. Options are intended either to qualify as "incentive stock options" under the Internal Revenue Code or "non-statutory stock options" not intended to so qualify. Under the 1991 Plan, options generally become exercisable 50% one year after grant, 75% after two years, 100% after three years, and expire up to ten years after grant. "Reload options," which are options to purchase additional shares if a grantee uses already-owned shares to pay for an option exercise, are granted automatically under the 1991 Plan and may be granted at the discretion of the administering committee under the 1985 Employee Stock Option Plan. The 1991 Plan generally supersedes the 1985 Plan, although options outstanding under the 1985 Plan remain exercisable until the expiration dates. The option price under the 1985 Plan is the fair market value of the shares on the date of grant. The option price under the 1991 Plan is not less than the fair market value of the shares on the date of grant. Both plans permit or permitted the granting of stock appreciation rights in connection with the grant of options. In addition, the 1991 Plan provides to each outside director of the company an automatic annual grant of an option to purchase 2,000 common shares, with terms generally comparable to employee stock options.

Under the 1991 Stock Incentive Plan, the company granted to certain executive officers 3,000 and 65,000 performance share stock awards in 1998 and 1997, respectively and none in 1999. Common shares equal to the number of performance share stock awards granted will be issued if the market price of the company's common stock reaches $45 per common share for ten consecutive trading days or after six years from date of grant, whichever occurs first. Under certain conditions such as retirement, a grantee of performance share stock awards may be issued a pro-rata number of common shares. The market value of the company's common shares at date of grant of the performance share stock awards was $38.25 per share in 1998 and $33.75 per share in 1997. The company recognizes compensation expense related to performance share stock awards ratably over the estimated period of vesting. Compensation costs recognized for performance share stock awards were $.8 million in 1999 and 1998, and $.5 million in 1997. At December 31, 1999, 67,000 performance share stock awards were outstanding.

Generally accepted accounting principles encourage the fair-value based method of accounting for stock compensation plans, under which the value of stock-based compensation is estimated at the date of grant using valuation formulas, but permit the continuance of intrinsic-value accounting. The com-

pany accounts for its stock compensation plans using the intrinsic-value accounting method (measured as the difference between the exercise price and the market value of the stock at date of grant). If the fair value method to measure compensation cost for the company's stock compensation plans had been used, the company's net income would have been reduced by $2.5 million in 1999, $1.6 million in 1998 and $2.6 million in 1997 with a corresponding reduction in net income per share of $.05 in 1999, $.03 in 1998 and $.05 in 1997.

Disclosures under the fair value method are estimated using the Black-Scholes option-pricing model with the following weighted-average assumptions for grants of stock options in the following years:

| | 1999 | 1998 | 1997 |
|---|---|---|---|
| 1985 Plan: | | | |
| Risk-free interest rate | 6.5% | 4.6% | 5.7% |
| Dividend yield | 3.4% | 4.0% | 2.7% |
| Volatility | 23% | 21% | 20% |
| Expected life (years) | .5 | 2.8 | 3.1 |
| 1991 Plan: | | | |
| Risk-free interest rate | 6.4% | 4.7% | 5.8% |
| Dividend yield | 3.4% | 4.0% | 2.7% |
| Volatility | 24% | 23% | 22% |
| Expected life (years) | 9.9 | 9.5 | 9.9 |

The fair value per share of the performance share stock awards granted in 1998 and 1997 was $33.94 and $31.80, respectively, using the following assumptions in 1998 and 1997, respectively: risk-free interest rate of 4.58% and 5.7%; volatility of 21% and 20%; and an expected life of three years. Dividends do not accumulate on performance share stock awards.

Information regarding these option plans, excluding the performance share stock awards, follows:

| | Shares | Weighted-Average Exercise Price |
|---|---|---|
| Outstanding, January 1, 1999 | 3,483,316 | $32.64 |
| Granted | 730,516 | 22.99 |
| Exercised | (79,675) | 20.31 |
| Forfeited | (165,415) | 33.98 |
| Outstanding, December 31, 1999 | 3,968,742 | $31.06 |
| Options exercisable, December 31, 1999 | 2,993,380 | $32.51 |
| Weighted-average fair value of options granted during the year | | $ 5.87 |
| Outstanding, January 1, 1998 | 3,212,157 | $31.88 |
| Granted | 410,248 | 37.69 |
| Exercised | (125,463) | 29.38 |
| Forfeited | (13,626) | 31.23 |
| Outstanding, December 31, 1998 | 3,483,316 | $32.64 |
| Options exercisable, December 31, 1998 | 2,842,719 | $31.97 |
| Weighted-average fair value of options granted during the year | | $7.74 |
| Outstanding, January 1, 1997 | 3,248,113 | $30.93 |
| Granted | 417,561 | 35.07 |
| Exercised | (361,179) | 25.85 |
| Forfeited | (92,338) | 35.88 |
| Outstanding, December 31, 1997 | 3,212,157 | $31.88 |
| Options exercisable, December 31, 1997 | 2,590,556 | $31.67 |
| Weighted-average fair value of options granted during the year | | $ 9.37 |

The following table summarizes information about stock options outstanding, excluding the performance share stock awards, at December 31, 1999:

| | Options Outstanding | | | Options Exercisable | |
|---|---|---|---|---|---|
| Range of Exercise Prices | Number Outstanding at 12/31/99 | Weighted-Average Remaining Contractual Life | Weighted-Average Exercise Price | Number Exercisable at 12/31/99 | Weighted-Average Exercise Price |
| $13 – $19 | 52,088 | .2 Years | $16.66 | 52,088 | $16.66 |
| 19 – 25 | 553,619 | 8.9 | 21.42 | 25,369 | 22.94 |
| 25 – 31 | 1,286,224 | 4.3 | 28.68 | 1,097,224 | 28.86 |
| 31 – 38 | 2,016,393 | 4.8 | 35.28 | 1,761,281 | 35.09 |
| 38 – 45 | 60,418 | 1.8 | 41.63 | 57,418 | 41.76 |
| | 3,968,742 | 5.1 | $31.06 | 2,993,380 | $32.51 |

# Notes continued

## NOTE 15 – SPECIAL CHARGES AND ASSET IMPAIRMENTS

The company initiated a series of steps to reduce costs and improve its worldwide operating structure and has been executing these steps in two phases over a period of approximately two years. The first phase, which began in the fourth quarter of 1998, resulted in the reduction of approximately 7% of the company's workforce, or 300 employees worldwide. Approximately 55% of this reduction occurred prior to December 31, 1998, a further 35% occurred in the first quarter of 1999, and the remainder has been substantially completed by the third quarter of 1999. Of the 300 employees, approximately 40% were in the manufacturing area and 60% were in the selling, administrative, research and testing areas. In addition, the company permanently removed seven component production units from service during this first phase.

In the fourth quarter of 1998, the company recognized special charges of $36.9 million, comprised of $23.3 million related to the first phase of the company's cost reduction program and $13.6 million for the write-off of purchased technology under development resulting from the acquisition of Adibis (see Note 11). After-tax, these charges reduced net income by $25.8 million, or by $.47 per share. These special charges related predominately to the company's chemicals for transportation segment.

In the first quarter of 1999, the company recognized an additional expense of $3.1 million, related to the first phase of its cost reduction program to reflect a greater amount for separation benefits, principally in Japan. After-tax, this charge reduced net income by $2.9 million or $.05 per share. In the third quarter of 1999, the company recognized special charges of $20.8 million related to the second phase of the company's cost reduction program. After-tax, this special charge reduced net income by $12.9 million, or $.24 per share. In the fourth quarter of 1999, the company recorded an adjustment of $4.3 million to reduce the special charge related to the first phase of the company's cost reduction program, principally to reflect a gain related to the settlement of pension obligations for work force reductions in the first phase of the company's cost reduction program (see Note 9). After-tax, this adjustment increased net income by $2.5 million or $.05 per share.

As adjusted, the first phase of the company's cost reduction program included workforce reduction cost estimated at $20.0 million and other exit costs estimated at $2.1 million, including $2.0 million related to asset impairments for production units to be taken out of service. Cash expenditures of approximately $5.0 million were made in 1998, and $14.7 million in 1999 related to the cost reduction program. Approximately $.4 million remains as an accrued liability at December 31, 1999, representing payments that will be made in 2000 relating to employees separated prior to December 31, 1999.

The second phase of the company's cost reduction program began in the third quarter of 1999 and involves primarily the downsizing of the company's Painesville, Ohio, manufacturing plant. This will result in the additional reduction of approximately 5% of the company's workforce, or 200 employees, and the shutdown of 23 of Painesville's 36 production systems. Through December 31, 1999, the company has shut down 12 of the 23 targeted production systems and has completed approximately 22% of the workforce reduction.

The second phase of the company's cost reduction program included workforce reduction cost estimated at $8.5 million and other exit costs estimated at $12.3 million, including $8.9 million related to asset impairments for production units to be taken out of service. Cash expenditures of approximately $1.3 million were made in 1999 related to the cost reduction program. Approximately $10.6 million remains as an accrued liability at December 31, 1999.

In 1997, the company provided $9.4 million for the impairment of long-lived assets. This included $6.3 million to reduce the carrying value of certain computer equipment and software made obsolete prior to expiration of their original estimated useful lives due to new systems being implemented. Also, during the fourth quarter the company decided to utilize a toll processor, beginning in 1998, rather than to produce an intermediate internally. This decision resulted in the permanent impairment of certain manufacturing equipment, and a provision of $3.1 million was recorded to reduce the asset carrying value to its estimated fair value. Fair value was determined by estimating the present value of future cash flows. These impairment losses are reflected in the consolidated statements of income for the year ended December 31, 1997, as follows: cost of sales – $4.4 million; research, testing and development expenses – $.9 million; selling and administrative expenses – $1.8 million and other income (net) – $2.3 million.

## NOTE 16 – LITIGATION

The company previously filed claims against Exxon Corporation and/or its affiliates relating to various commercial matters, including alleged infringements by Exxon of certain of the company's patents.

On March 31, 1999, the company and Exxon Corporation reached a settlement of all pending intellectual property litigation between the two companies and their affiliates, except for litigation pending in Canada. Under the settlement agreement, Exxon paid the company cash of $16.8 million in April 1999. After deducting related expenses, this settlement increased pre-tax income by $14.5 million in 1999.

On April 23, 1998, the company reached a settlement with Exxon of a lawsuit pending in federal court in Ohio and received cash of $19.0 million. After deducting related expenses, this settlement increased pre-tax income by $16.2 million in 1998.

The company has prevailed in a case brought in Canada against Exxon's Canadian affiliate, Imperial Oil, Ltd., for infringement of the company's patent pertaining to dispersants, the largest additive component used in motor oils. A 1990 trial court verdict in favor of the company regarding the issue of liability was upheld by the Federal Court of Appeals of Canada in December 1992, and in October 1993, the Supreme Court of Canada dismissed Imperial Oil's appeal of the Court of Appeals' decision. The case has been returned to the trial court for an assessment of compensation damages, but no date has been set for a determination of such damages. In October 1994, the trial court judge determined that Imperial Oil had violated an earlier injunction for the manufacture or sale of the dispersant that is the subject of this case. The determination of penalty damages, if any, on account of this violation will be made after the court has determined the compensation damages for patent infringement. A reasonable estimation of the company's potential recovery relating to this litigation cannot be made at this time, and no amounts that may be recovered in the future have been recorded in the company's financial statements as of December 31, 1999.

## Quarterly Financial Data (Unaudited)

| | Three Months Ended | | | |
|---|---|---|---|---|
| | March 31 | June 30 | Sept. 30 | Dec. 31 |
| | *(In Thousands of Dollars Except Per Share Data)* | | | |
| **1999** | | | | |
| Net sales | $446,627 | $433,129 | $431,978 | $431,807 |
| Gross profit | 143,453 | 136,144 | 136,612 | 132,387 |
| Net income | 39,094 | 30,028 | 20,412 | 33,458 |
| Net income per share | $.72 | $.55 | $.37 | $.61 |
| Net income per share, diluted | $.72 | $.55 | $.37 | $.61 |
| **1998** | | | | |
| Net sales | $399,900 | $405,160 | $403,262 | $406,236 |
| Gross profit | 122,865 | 126,143 | 120,252 | 111,971 |
| Net income (loss) | 29,668 | 39,963 | 16,614 | (15,045) |
| Net income (loss) per share | $.52 | $.71 | $.30 | $(.27) |
| Net income (loss) per share, diluted | $.52 | $.71 | $.30 | $(.27) |

In the first quarter of 1999, the company recorded a pre-tax special charge of $3.1 million ($.05 per share) to reflect an additional amount for separation benefits, principally in Japan, under its cost reduction program.

In the first quarter of 1999, the company recorded a pre-tax gain from litigation settlement of $14.5 million ($.16) share.

In the third quarter of 1999, the company recorded a pre-tax special charge of $20.8 million ($.24 per share) primarily related to the restructuring of its Painesville, Ohio, manufacturing plant.

In the fourth quarter of 1999, the company recorded a pre-tax adjustment of $4.3 million ($.05 per share) to reduce the amount of the special charge principally to reflect a gain related to the settlement of pension obligations for work force reductions in the first phase of the company's cost reduction program.

In the fourth quarter of 1999, the company recorded a pre-tax gain from litigation settlement of $3.1 million ($.04) share.

In the second quarter of 1998, the company recorded a pre-tax gain from litigation settlement of $16.2 million ($.19 per share).

In the fourth quarter of 1998, the company recorded pre-tax special charges of $23.3 million ($.30 per share) related to a cost reduction program and $13.6 million ($.17 per share) related to the write-off of purchased technology under development resulting from the company's acquisition of Adibis.

# Historical Summary

| (In Millions, Except Shareholders, Employees and Per Share Data) | 1999 | 1998 | 1997 |
|---|---|---|---|
| OPERATING RESULTS: | | | |
| Revenues | $1,748.0 | $1,617.9 | $1,673.8 |
| Total cost and expenses | 1,522.2 | 1,464.1 | 1,441.5 |
| Other income (charges) | (30.5) | (35.0) | (1.1) |
| Net income | 123.0 | 71.2 | 154.9 |
| – Before unusual items and accounting changes | 125.3 | 86.5 | 154.9 |
| Net income per share | 2.25 | 1.27 | 2.68 |
| – Before unusual items and accounting changes | 2.30 | 1.55 | 2.68 |
| FINANCIAL RATIOS: | | | |
| Gross profit percentage | 31.5 | 29.8 | 32.7 |
| Percent of revenues: | | | |
| Selling and administrative expenses | 10.4 | 11.1 | 10.2 |
| Research and testing expenses | 8.3 | 9.3 | 8.8 |
| Return on average shareholders' equity (%) | 15.8 | 9.0 | 19.0 |
| – Before unusual items and accounting changes (%) | 16.1 | 10.9 | 19.0 |
| Debt to capitalization (%) | 33.8 | 35.8 | 21.3 |
| Current ratio | 2.5 | 2.5 | 2.5 |
| OTHER INFORMATION: | | | |
| Dividends declared per share | $ 1.04 | $ 1.04 | $ 1.01 |
| Average common shares outstanding | 54.6 | 55.9 | 57.8 |
| Capital expenditures | $ 64.9 | $ 93.4 | $ 100.7 |
| Depreciation expense | 88.3 | 79.7 | 82.7 |
| At Year End: | | | |
| Total assets | $1,682.4 | $1,643.2 | $1,462.3 |
| Total debt | 403.0 | 429.3 | 220.3 |
| Total shareholders' equity | 790.1 | 769.1 | 815.4 |
| Shareholders' equity per share | 14.50 | 14.10 | 14.31 |
| Common share price | 30.88 | 25.69 | 36.88 |
| Number of shareholders | 5,126 | 5,609 | 5,661 |
| Number of employees | 4,074 | 4,324 | 4,291 |

| 1996 | 1995 | 1994 | 1993 | 1992 | 1991 | 1990 | 1989 |
|---|---|---|---|---|---|---|---|
| $1,597.6 | $1,663.6 | $1,599.0 | $1,525.5 | $1,552.2 | $1,476.3 | $1,452.7 | $1,227.9 |
| 1,403.0 | 1,478.0 | 1,397.0 | 1,362.2 | 1,390.5 | 1,308.7 | 1,288.4 | 1,109.7 |
| 56.1 | 40.0 | 49.4 | (43.6) | 15.4 | 10.5 | 106.9 | 19.5 |
| 169.8 | 151.6 | 175.6 | 45.6 | 124.6 | 123.7 | 190.0 | 94.0 |
| 135.2 | 126.6 | 148.8 | 113.5 | 124.6 | 123.7 | 133.5 | 94.0 |
| 2.80 | 2.37 | 2.67 | .67 | 1.81 | 1.79 | 2.67 | 1.26 |
| 2.23 | 1.98 | 2.26 | 1.67 | 1.81 | 1.79 | 1.87 | 1.26 |
| 32.0 | 31.5 | 32.7 | 32.0 | 31.7 | 32.4 | 30.3 | 29.2 |
| 9.9 | 9.8 | 10.0 | 10.4 | 11.7 | 11.7 | 10.9 | 10.8 |
| 10.1 | 10.8 | 10.3 | 11.2 | 10.0 | 9.8 | 8.5 | 9.2 |
| 20.4 | 18.0 | 22.5 | 5.9 | 15.4 | 16.2 | 27.2 | 14.2 |
| 16.2 | 15.1 | 19.0 | 14.6 | 15.4 | 16.2 | 18.0 | 14.2 |
| 19.5 | 22.5 | 16.8 | 8.7 | 5.6 | 7.9 | 8.3 | 8.5 |
| 2.6 | 2.4 | 2.5 | 2.5 | 2.9 | 2.7 | 2.7 | 3.0 |
| $ .97 | $ .93 | $ .89 | $ .85 | $ .81 | $ .77 | $ .73 | $ .69 |
| 60.7 | 63.8 | 65.7 | 67.7 | 69.0 | 69.3 | 71.1 | 74.7 |
| $ 94.3 | $ 189.3 | $ 160.5 | $ 127.9 | $ 95.8 | $ 82.4 | $ 77.4 | $ 64.7 |
| 78.7 | 71.8 | 63.9 | 59.6 | 58.4 | 54.6 | 54.0 | 48.7 |
| $1,402.1 | $1,492.0 | $1,394.4 | $1,182.6 | $1,127.1 | $1,171.7 | $1,114.6 | $ 960.2 |
| 198.5 | 247.1 | 167.9 | 69.6 | 48.4 | 67.8 | 66.6 | 61.2 |
| 819.4 | 849.0 | 832.0 | 732.2 | 819.4 | 794.5 | 736.2 | 663.3 |
| 14.00 | 13.48 | 12.83 | 11.00 | 11.97 | 11.51 | 10.61 | 8.96 |
| 31.00 | 27.75 | 33.88 | 34.13 | 27.25 | 28.25 | 23.63 | 18.75 |
| 5,764 | 6,304 | 6,494 | 6,616 | 6,822 | 6,767 | 6,692 | 7,370 |
| 4,358 | 4,601 | 4,520 | 4,613 | 4,609 | 5,299 | 5,169 | 5,030 |

# Board of Directors

**William G. Bares**
Chairman of the Board, President and Chief Executive Officer.
Director since 1981.

**Jerald A. Blumberg**
President and Chief Executive Officer of Ambar, Inc.
Director since 1999.

**Peggy Gordon Elliott**
President of South Dakota State University.
Director since 1993.

**Forest J. Farmer, Sr.**
President and Chief Executive Officer of North American Interiors, Inc.
Director since 1997.

**Gordon D. Harnett**
Chairman, President and Chief Executive Officer of Brush Wellman Inc.
Director since 1995.

**Victoria F. Haynes**
President of Research Triangle Institute.
Director since 1995.

**David H. Hoag**
Retired Chairman and Chief Executive Officer of The LTV Corporation.
Director since 1989.

**William P. Madar**
Chairman of the Board of Nordson Corporation.
Director since 1992.

**Ronald A. Mitsch**
Retired Vice Chairman and Executive Vice President of 3M. Director since 1991.

**M. Thomas Moore**
Retired Chairman and Chief Executive Officer of Cleveland-Cliffs Inc.
Director since 1997.

**Daniel E. Somers**
President and Chief Executive Officer of AT&T Broadband and Internet Services.
Director since 1999.

# Corporate Information

## TRANSFER AGENT, REGISTRAR AND DIVIDEND DISBURSING AGENT

American Stock Transfer & Trust Company
40 Wall Street
New York, NY 10005
(212) 936-5100   (800) 937-5449

## ANNUAL MEETING

The Annual Meeting of Shareholders will be held at the Radisson Hotel & Conference Center, Eastlake, Ohio, on May 1, 2000.

## FORM 10-K

The Form 10-K Annual Report to the Securities and Exchange Commission will be available March 31, 2000. A copy may be obtained without charge upon written request to the Secretary of the Corporation or from the Lubrizol Web site.

## SHAREHOLDER INFORMATION

The Common Shares of The Lubrizol Corporation are listed on the New York Stock Exchange under the symbol LZ. The number of shareholders of record of Common Shares was 5,025 as of February 10, 2000.

Investors and shareholders may purchase shares of stock through The Lubrizol Corporation Dividend Reinvestment and Direct Stock Purchase and Sale Plan. To participate in the Plan, contact our transfer agent, American Stock Transfer & Trust Company, Dividend Reinvestment Department, at 1-877-573-3998 (toll free) or on the Internet at www.investpower.com.

## INTERNET WEB SITE

Company and investor information is available at the Internet Web site: http://www.lubrizol.com.

## OFFICERS

W. G. Bares
Chairman, President and
Chief Executive Officer

George R. Hill
Senior Vice President

Joseph W. Bauer
Vice President and General Counsel

Charles P. Cooley
Vice President, Treasurer and
Chief Financial Officer

Stephen A. Di Biase
Vice President

Joe E. Hodge
Vice President

K. H. Hopping
Vice President and Secretary

S. F. Kirk
Vice President

Yannick Le Couédic
Vice President

Mark W. Meister
Vice President and Chief Ethics Officer

Richard D. Robins
Vice President

J. Alun Thomas
Vice President

John R. Ahern
Controller—Accounting and
Financial Reporting

Leslie M. Reynolds
Assistant Secretary

29400 Lakeland Boulevard • Wickliffe, Ohio 44092-2298 • (440) 943-4200 • http://www.lubrizol.com

PRINCIPAL SUBSIDIARIES AND BRANCHES

Lubrizol Adibis (Africa) (Pty.) Ltd.
Lubrizol Adibis (UK) Limited
Lubrizol Adibis Holdings (UK) Limited
Lubrizol Adibis Scandinavia A/S
Lubrizol Australia
Lubrizol do Brasil Aditivos, Ltda.
Lubrizol Canada Limited
Lubrizol de Chile Limitada
Lubrizol China, Inc.
Lubrizol Coating Additives GmbH (Germany)
Lubrizol Española, S.A.R.L.
Lubrizol Europe B.V. (The Netherlands)
Lubrizol France S.A.R.L.
Lubrizol Gesellschaft m.b.H. (Austria)
Lubrizol GmbH (Germany)
Lubrizol International, Inc.
Lubrizol International Management Corporation
Lubrizol Italiana, S.p.A.
Lubrizol Japan Limited
Lubrizol Korea
Lubrizol Limited (England)
Lubrizol Metalworking Additives Company, Inc.
Lubrizol de Mexico S. de R.L.
Lubrizol de Mexico, Comercial S. de R.L. de C.V.
Lubrizol Overseas Trading Corporation
Lubrizol Performance Systems Inc.
Lubrizol Performance Systems Limited (England)
Lubrizol S.A. (Belgium)
Lubrizol Scandinavia AB
Lubrizol Servicios Tecnicos, S. de R.L. (Mexico)
Lubrizol South Africa (Pty.) Limited
Lubrizol Southeast Asia (Pte.) Ltd. (Singapore)
Lubrizol de Venezuela, C.A.
Carroll Scientific, Inc.
CPI Engineering Services, Inc.
Dia-Meter Pumps Limited (England)
Engine Control Systems Europe AB (Sweden)
Engine Control Systems, Ltd. (US)
Engine Control Systems, Ltd. (England)
Gateway Additive Company
Shanghai Lubrizol International Trading Co., Ltd. (China)

AFFILIATES

Industrias Lubrizol, S.A. de C.V. (Mexico)
Lanzhou Lubrizol – Lanlian Additive Co., Ltd. (China)
Lubrizol India Limited
Lubrizol Transarabian Company Limited (Saudi Arabia)
Tianjin Lubrizol – Lanlian Additive Co., Ltd. (China)

TECHNICAL CENTERS

Atsugi, Japan
Hazelwood, England
Wickliffe, Ohio

MANUFACTURING PLANTS

Atlanta, Georgia
Countryside, Illinois
Midland, Michigan
Reno, Nevada
Painesville, Ohio
Mountaintop, Pennsylvania
Bayport, Texas
Deer Park, Texas
Houston, Texas
Sydney, Australia
Rio de Janeiro, Brazil
London, Canada
Newmarket, Canada
Niagara Falls, Canada
Nyborg, Denmark
Bromborough, England
Fareham, England
LeHavre, France
Mourenx, France
Rouen, France
Hamburg, Germany
Ritterhude, Germany
Mumbai, India
Kinuura, Japan
Apodaca, Mexico
Yanbu, Saudi Arabia
Jurong, Singapore
Durban, South Africa
Malmo, Sweden