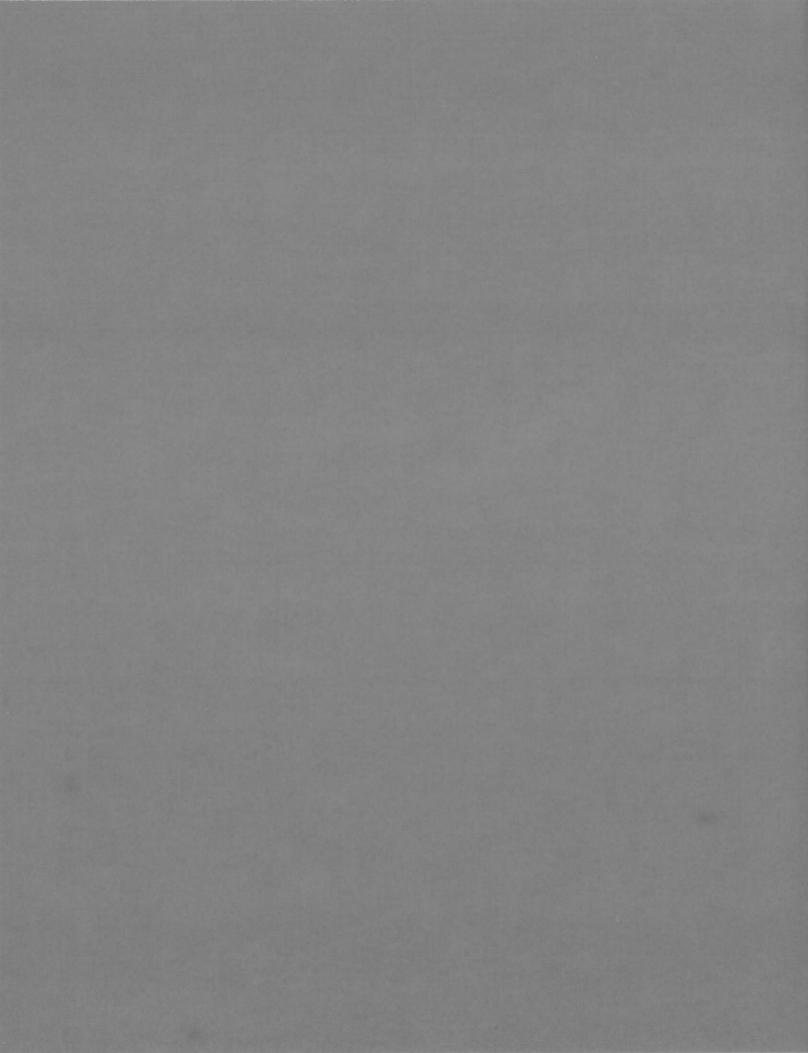
Schlumberger Annual Report 1973





Schlumberger Limited

Cover: Artist's conception of a Schlumberger laboratory truck logging an oil well. The logging tool, at the end of the cable (wireline) is used to measure the physical properties of underground formations.

In Brief

	1973	1972	1971
Revenues	\$945,829,000	\$812,062,000	\$710,423,000
Net Income	\$ 92,362,000	\$ 70,233,000	\$ 56,235,000**
Net Income Per Share*	\$2.53	\$1.94	\$1.58**
Dividends Paid Per Share	* \$0.525	\$0.485	\$0.467

^{*}ADJUSTED FOR THREE-FOR-ONE STOCK SPLIT IN SEPTEMBER 1972 **BEFORE EXTRAORDINARY NET GAINS

To the Shareholders

n 1973, Schlumberger revenues were \$946 million, an increase of 16%. Net income of \$92.4 million was 32% ahead of the previous year; earnings per share were \$2.53 compared to \$1.94 in 1972.

The accelerated pace of oilfield activity worldwide, a strong economy in the U.S. and in Europe, the first benefits of our plan to improve Compteurs' profitability—these are the three main factors underlying the 1973 figures.

Net income has increased every year over the past decade; earnings have grown fourfold during this tenyear period. This upward trend has been more pronounced in the past two years; fourth quarter net income in 1973 increased 34% over the same period in 1972.

The search for oil intensified worldwide; all major areas had a higher growth rate than in the previous year. Schlumberger wireline revenues increased 17% in North America—Canada and U.S. on land and offshore all contributed: 9% in South America compared to virtually no growth in the previous two years; 23% in the Eastern Hemisphere with significant gains in the North Sea, Indonesia, Nigeria and the Middle East.

The European economy was subjected to wide swings in currency valuations and continuing increase

in the rate of inflation. Nevertheless, we did meet our operating plan at Compagnie des Compteurs. As we anticipated a year ago, Compteurs showed a substantial profit improvement over 1972.

U.S. Electronics operating results were the best ever attained; all operating divisions were profitable. The biggest improvement was at Heath.

In 1973 Schlumberger made capital this growing market will demand. investments of \$115 million. We expect to spend \$150 million for capital items in 1974; this record amount will be necessary to meet the growing demand for oilfield services, to continue the expansion of Forex Neptune operations and to further the reorganization program at Compteurs. Operations will generate enough cash to finance these plans.

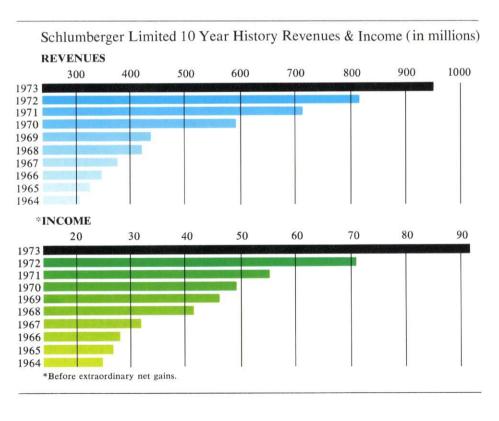
In 1973 the world economy has been jolted by forces of a magnitude unknown since World War II. It is difficult at this point to ascertain what is in store for 1974 but it is unlikely to be smooth going. In the long run, whatever the political tribulations, whatever the economic ups and downs, the world will need more energy. For the next 15 years the answer to the energy crisis is more crude oil. Schlumberger will have the technology, the equipment, the men ready to help face the challenge

of finding new oil reserves. In the meantime, more nuclear power plants will be built, making electricity more readily available. Through Compteurs, whose largest operation is connected with the distribution of electrical power (industrial and domestic meters, remote load controls, network protective systems and fault locators) we are engaged in the technical developments which

Schlumberger major operations oilfield services, electronic controls, metering-are vitally involved in the solution of the energy problem.

FEBRUARY 28, 1974

JEAN RIBOUD. CHAIRMAN AND PRESIDENT



Business and Financial Review

or the tenth consecutive year, in 1973 Schlumberger net income set a new record. In the ten year period since 1963, earnings per share increased fourfold. All business categories contributed to the growth in 1973, particularly oilfield operations in North America and the Eastern Hemisphere.

Consolidated revenues increased 16% to \$946 million. Net income of \$92.4 million was 32% higher than in 1972; earnings per share of \$2.53 in 1973 improved 30% over \$1.94 in 1972.

Fourth quarter net income was \$27.9 million (\$0.76 per share), up 34% from \$20.9 million (\$0.57 per share) in the last quarter of 1972. Revenues for the quarter were \$278 million compared to \$225 million in the fourth quarter of the previous year, an increase of 24%.

Earnings per share increased each quarter in 1973 compared to the same quarter of the previous year; the first quarter was up 27%, the second 29%, the third 31% and

the fourth quarter increased 33%.

Revenues by Business Category

\$ Millions	
1973	1972
\$412	\$347
130	115
387	318
929	780
17	32
\$946	\$812
	1973 \$412 130 387 929

Currency

During the year there were wide fluctuations in the relative values of principal currencies in the western world. In particular, the U.S. dollar was weak relative to the French franc throughout most of the year; this resulted in a significant increase in 1973 consolidated

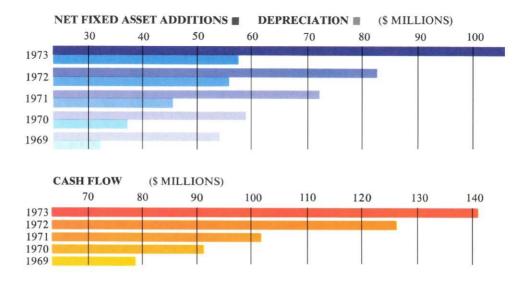
revenues. Excluding the effect of fluctuating exchange rates, 1973 growth in consolidated revenues was about 10% rather than the 16% recorded; net income, however, was not materially affected by this factor.

Plastic Applicators

Plastic Applicators, a Houston based subsidiary specializing in coating and inspection of oilfield tubular goods, was sold in December to Energy Services International, Inc. of Houston. The operation was sold because Schlumberger could not contribute to the growth of this business. Annual sales volume was approximately \$10 million; a small loss realized on this disposition was charged to 1973 net income.

Research and Engineering

Research & Engineering expense amounted to \$41.3 million in 1973 compared to \$34.3 million in 1972



-about 4½% of operating revenues in each year. In 1973, \$18.8 million was for oilfield activities, \$5.1 million for Electronics—U.S.A. and \$17.4 million for Meters & Electronics—Europe.

Taxes on Income

Estimated liability for taxes on income at year end 1973 was \$94 million compared to \$66 million at the end of 1972. The increase of \$28 million reflects a provision for income taxes on substantially higher pretax earnings in 1973. Also contributing to the increase were added provisions for taxes which may be payable in the future depending on the interpretation of the income taxation laws and regulations of various countries as they relate to worldwide operations of Schlumberger.

Management believes adequate provision has been made at December 31, 1973 for overall tax contingencies in the U.S.A. and other

countries where Schlumberger operates.

Capital Expenditures

Additions to fixed assets totaled \$114.6 million in 1973. Capital expenditures by business category were as follows:

	\$ Millions
Oilfield—Wireline	-
Services	\$ 52.3
—Forex Neptune	29.2
—Other	9.7
	91.2
Electronics—U.S.A.	4.6
Meters & Electronics—	
Europe	17.4
Other	1.4
	\$114.6

Depreciation expense for 1973 was \$58.3 million (approximately 51% of fixed asset additions) compared with \$55.1 million in 1972.

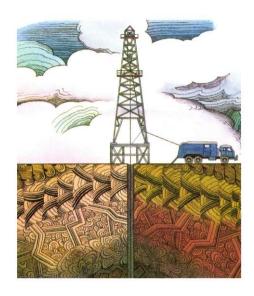
Common Stock and Dividends

During 1973, 67,400 shares of treasury stock were purchased and 296,630 shares were sold to employees under stock option plans. The parent company also issued 350,676 new shares to a whollyowned subsidiary in repayment of the major portion of the shares which the parent had borrowed in 1972 to issue in exchange for convertible debentures then outstanding.

At 1973 year end, 1,101,344 shares remained in the treasury.

Purchases of treasury stock have been and may continue to be made for general corporate purposes, including sale under employees' stock option plans. However, no treasury shares have been purchased since May 1973.

The cash dividend was raised by the Board of Directors at the July 19, 1973 meeting to an annual rate of \$0.60 per share from the previous rate of \$0.50.



Oilfield Operations

ilfield revenues of \$412 million in 1973 were 19% higher than the previous year. Increases were substantial throughout the Eastern Hemisphere, and in North America. Allied oilfield revenues set new records; they were higher in every division.

Earnings continued to improve worldwide in every major area of wireline operations; allied oilfield profits were substantially higher, especially at Forex Neptune and Dowell Schlumberger (50% owned).

Wireline Services

NORTH AMERICA

Revenues increased 17% in North America, including impressive gains in Canada and land areas of the U.S. Offshore revenues increased 10% despite a decline in the number of rigs operating. This trend will improve as more new rigs become available and offshore lease sales increase. Overall, the number of active rotary rigs increased substantially in North America for the first time since 1957; gas well drilling was a major factor.

Radioactive logging revenues went up 40% mainly due to the Neutron-Density combination logging tool especially designed to identify gas zones. Other combination logging tools also added significantly to revenues. With these tools, two or more services are run on one trip in the well. This reduces standby drilling-rig time which is costly. Also combination services lend themselves to computer-processed interpretations.

Appreciable gains were made in completion services mainly because of a new dual-spacing Thermal-Decay Time logging tool which improves the evaluation of older wells. Perforating revenues were also higher.

The number of wells drilled at a depth of more than 20,000' increased in the U.S. Deep wells complicate the logging process because of higher temperatures and pressures. To cope with these conditions Schlumberger has developed deep well equipment which last year successfully produced induction and

sonic logs in a 23,000′ well at a record temperature of 555°F, well above the 350°F limit for regular logging tools.

SOUTH AMERICA

Revenues improved 9% in South America compared to no growth in the previous two years. This was mainly achieved because of deeper wells and more drilling in offshore and wildcat areas.

Business increased substantially in Venezuela and Argentina, the two most active areas; Trinidad, Bolivia, Peru and Brazil also gained. Business was lower in Colombia, Ecuador and the Caribbean. Venezuela was the only country to show an increase in the number of wells drilled.

The political situations in Argentina and Chile had no apparent effect on Schlumberger activity in either country; in fact, revenues in Argentina were up 18%.

EASTERN HEMISPHERE

Revenues increased 23% in the Eastern Hemisphere; in 1973 for the first time offshore revenues exceeded land revenues. Major growth came from the North Sea, Indonesia, the Middle East and Nigeria.

Exploration activity in the North

Sea grew substantially resulting in a significant number of new oil discoveries.

Combination logging and computer processed interpretation followed the same pattern of growth as North America. Two combination tools introduced in 1972 were particularly successful: Dual Laterolog and Neutron-Density. The October war in the Middle East had a minimal effect on Schlumberger operations.

Allied Oilfield Services

FOREX SEPTIME

Revenues were 22% above 1972. Growth was most significant in the North Sea, the Far East, and the Middle East, particularly Abu Dhabi and Iraq.

Pentagone 82, a new semisubmersible, began operations in the North Sea early in January 1974. Drill Master (Pentagone 83) started drilling in the North Sea in November 1973; Forex Neptune operates this unit under a long-term contract for the Norwegian firm which owns it. Pentagone 84 is under construction in Finland, and a new jack-up, Trident, is being built in Singapore. Both units will begin operations in mid-1974.

Neptune 6, a tender assisted rig, sank in the Persian Gulf offshore

Dubai as a result of a severe December storm. The \$1-million loss was fully covered by insurance. In January 1974, a jack-up rig, Neptune Gascogne, was transferred from the Adriatic Sea to offshore Brazil under a long-term contract.

FLOPETROL

Revenues increased 22%. Growth continued in the Middle East, the Far East, Brazil, also in Gabon and the Congo.

Flopetrol burners flow test offshore oil-wells without polluting air or water; the number of leased burners in service increased 25%; capacity of new burners was doubled during 1973.

The new headquarters located in Melun, near Paris, was completed in 1973. To meet growing demand in the Middle East and Far East, new bases were opened in Saudi Arabia, Abu Dhabi, and Brunei.

JOHNSTON

Revenues gained 16%, mainly due to rental of tools used for "jarring" and "fishing"—jarring to loosen drill pipes which are stuck and fishing to retrieve hardware lost in the well. Formation testing and squeeze tool services were level.

In 1973, Johnston introduced several new tools including a nitrogen jar booster, and drilling slip

joint. The jar booster ensures maximum impact from drilling and fishing jars. The drilling slip joint, used on floating rigs, keeps a constant weight on the drill bit regardless of vessel heave.

To meet the rising demand for tools and services, the manufacturing facility in Houston will be doubled by the end of 1974 at a cost of \$1.9 million.

VECTOR

Cable sales were 19% higher than the previous year. The market for seismic and well logging cables was strong. Currently, Vector is developing cable systems for the control of deep water tanker loading and unloading facilities.

DOWELL SCHLUMBERGER (50% Owned)

Revenues were substantially higher due mainly to increased activity in the Far East, the Middle East, West Africa and the North Sea. Business improved significantly in Algeria.

New chemicals for both acidizing and cementing services were introduced. One product increases the rate of penetration of acid into formations to stimulate well production; another, a chemical extender, allows lighter cements thereby reducing the bulk of material that must be carried

on offshore drilling vessels.

A new offshore service vessel, "Big Orange One" was launched and began Middle East operations. It is designed to pump acid into producing wells at a high injection rate.

Future Prospects

Restriction of oil production in the Middle East, even if temporary, and higher crude oil prices will inevitably lead to greater drilling in other parts of the world. For years to come the oil industry will spend billions to find and develop reserves in all areas of the world.

Activity in North America should be quickened by the increase in U.S. crude oil prices which are still far below world prices. The U.S. effort to become self-sufficient in energy can only result in accelerated drilling. Even at today's prices, oil is still cheaper than coal, shale oil, or atomic energy. Old prospects will be reexamined; wells will be worked over to increase production. More deep wells will be drilled.

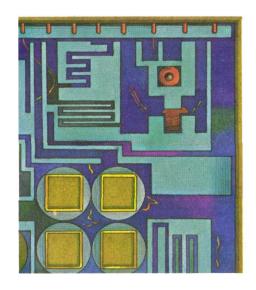
Now that the Alaskan pipeline has been approved, North Slope drilling will be reactivated. However, activity will be limited because oil companies will only drill at a pace which will permit adequate production to fill the pipeline when it is completed.

In the Eastern Hemisphere, drill-

ing will grow as rapidly as available drilling rigs and offshore platforms permit.

Dramatic growth in the North Sea should continue; an increase of 75% in exploration is conservatively projected for the year ahead. The outlook for South America is encouraging—steady growth in 1974 and beyond is likely.

Mobile offshore drilling rigs now total 220. Also 107 more rigs are at various stages of construction in shipyards around the world. Offshore exploration should continue to increase for years to come.



Electronics - U.S.A.

chlumberger U.S. electronics sales were \$130 million, compared to \$115 million in 1972. However, for comparative purposes, 1972 sales were \$106 million excluding EMR-Computer operations which were sold in late 1972. There was a corresponding increase in the profitability of these operations with substantial gains at Heath, EMR-Telemetry and Weston Components. Weston sales of instruments and components were up 14% over the previous year, mainly due to increased nuclear instrumentation contracts at Archbald, and to a lesser degree increased sales of panel meters and test equipment at Newark. Operating profit improved at both locations but these gains were virtually offset by an inventory writeoff at Newark.

New products at Weston Instru-

ments (Newark) include two portable test instruments; one is a true RMS (effective voltage) digital multimeter; the other is a voltohmmeter with the unique capability of measuring DC current "in-circuit" without breaking connections, for example, on printed circuit boards. The Weston digital multimeter, model 4442, introduced in 1972 was carried by the astronauts on a recent flight to the orbiting Skylab station. It was used to monitor and test gyroscopes as well as astronaut maneuvering equipment. This is the first such portable trouble-shooting instrument used in space.

Weston Newark negotiated a three year union contract in October with no work stoppage.

Weston Components (Archbald) has substantial orders to produce nuclear instrumentation and control equipment under subcontract from Westinghouse and General Electric. The equipment monitors and controls nuclear reactors; the present backlog of orders is more than \$20 million, scheduled for delivery over the next two to three years. Weston is exploring the possibility of commercial applications for nuclear instrumentation, and is participating in a design and manufacturing contract with Westinghouse in connection with the new fast breeder reactor program. The potentiometer business at Archbald is expanding at a good rate and manufacturing efficiency has been significantly improved; this product line is now profitable.

EMR sales increased 21%; Photoelectric volume was down somewhat but Telemetry product sales were strong.

EMR-Telemetry (Sarasota), which has been one of the leaders in aircraft and missile testing, has broadened applications of telemetry to include testing of automobiles, farm vehicles, hovercraft, helicopters, and other vehicles.

A Digital Real Time Spectrum Analyzer, model 1510, introduced late in the year is meeting with good success over a broad industrial base in noise and vibration analysis. A field trial of the instrument contributed to a more practical design of the system and of front panel controls. These new products bolster our program to diversify telemetry operations which in the past have been dependent almost entirely upon government business.

EMR-Photoelectric has introduced an Optical Data Digitizer (ODD). It performs the function of the eye and the brain to automate and speed up inspection operations, replacing manpower with machines. For a sensor, the ODD uses a special image dissector tube designed and produced at EMR. A programmed

minicomputer sequentially chooses from thousands of picture elements, only those which the image dissector should examine to operate for maximum efficiency. The computer accumulates the data and performs mathematical computations to determine contours, spacing, irregularities.

EMR has delivered the last of eight IMP satellites assembled for NASA Goddard Space Flight Center over the past ten years. Each orbiting Interplanetary Monitoring Platform (IMP) gathers scientific data on magnetic fields, cosmic rays and solar radiations; these data are essential to the safety of the astronauts in flight and also provide useful knowledge about the environment of the solar system. NASA has called this project, now completed, one of the most successful in the space program.

Heath sales volume gained 17% over the previous year and profit increased correspondingly. Capacity of the main plant at Benton Harbor, Michigan was expanded. Building additions of 60,000 sq. ft. for manufacturing and 40,000 sq. ft. for engineering increased the size of the headquarters facility to nearly a half million square feet.

In 1973, Heath introduced four kits for beginners in the \$5 to \$15 range to attract new kit builders; a photoelectric lamp switch, a solid state lamp dimmer, a portable AM

radio and a telephone amplifier.

New Heathkit[®] utility products for the home or office include a handheld calculator, a digital electronic thermometer for measuring indoor/ outdoor temperature, a weather station, an ultrasonic intruder alarm and an ultrasonic cleaner.

New measurement instruments for laboratory use include two frequency counters; one is a kit measuring up to 180 MHz, able also to accurately measure low frequencies through the use of a phase-locked frequency multiplier. The other is an assembled fully automatic 110 MHz autoranging counter.

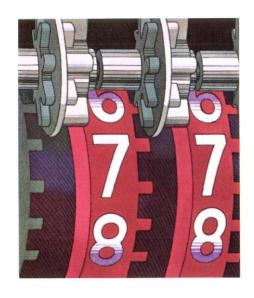
In the amateur radio line the most popular product introduced in 1973 is a two-meter FM transceiver which can be used for either mobile or fixed installations.

The audio line was expanded with the introduction of two new four-channel products: an AM/FM receiver/amplifier and an audio-scope designed to provide visual checking and monitoring of parameters related to the performance of any two- or four-channel stereo system.

Television kits continue to lead in dollar volume; TV sales to correspondence schools increased again in 1973. A new digital color TV model, GR 2000, introduced in January 1974, features all-electronic control of tuning and sound level, and displays channel number on the screen. Initial acceptance has been unusually good.

Mail order sales of Heath products have grown steadily and still account for over half of the business. However, most of the increase in Heath business over the past decade has come from new market outlets: today there are 44 retail stores in the U.S.—eight were opened in 1973; more than \$12 million in retail and mail order sales were made outside the U.S. in 1973, mainly in Canada and western Europe.

U.S. Electronics operations started 1974 with a higher backlog; also orders to date have held up well indicating a good start for the current year at all divisions.



Meters and Electronics -Europe

evenues of European Meters and Electronics—Compteurs which includes SIS (Schlumberger Instruments and Systems)—were \$387 million in 1973. Excluding the effects of monetary fluctuations during the year, the actual increase in revenues as compared to the previous year was 4%. Net income improved over the previous year, meeting our objectives. However, it is still below our plans for 1974 and 1975 and well below the level required to finance capital investment and provide a healthy return on capital.

Several operations contributed to improved results in 1973, primarily four divisions: Energy (industrial and domestic electricity meters, remote load controls, network protective systems), Liquids (water meters and industrial meters for liquids), Malbranque-Serseg (indus-

trial valves and specialized valves for the oil industry) and the Mechanical Division. The Industrial Control Division and subsidiaries of Compteurs in Belgium, Holland, Spain and Brazil did not meet their objectives. The Gas Meter Division sustained a loss as a consequence of the cost of relocation and modernization of manufacturing facilities. SIS incurred a small loss but the net results were improved over the previous year.

Sales

Sales were significantly improved in several product lines:

Electricity meters. In France, demand for three-phase meters used in dwellings has risen considerably; it is linked to the expansion of electric heating. The new Frosinone plant in Italy has met the planned rate of production.

Load control systems. An increasing number of utility companies have adopted the ripple control technique to monitor and regulate the supply of electricity at peak hours. This equipment makes it possible for a utility distributor to remotely switch on or off industrial and domestic appliances such as water heaters, and also to use a differential rate billing through remote control of meters.

Water meters. European sales showed a satisfactory rate of growth. Exports to countries in which Compteurs has no manufacturing facilities improved significantly.

General purpose measuring instruments. Good results are attributable to the success of the Master Series digital voltmeters and to expanded sales in France, U.K., Italy and Austria.

Orders

The sales organization has been strengthened and expanded.

Orders received in 1973 were 10% higher than the previous year. At December 31, 1973 the backlog was 14% higher than at the end of 1972. Significant orders were received during 1973 to supply ripple control equipment to the national public utility companies of both France and Poland.

Capital Investment

In 1972 Compteurs started a program to specialize and modernize manufacturing facilities. Capital investment for this purpose in 1973 amounted to \$17.4 million; the budget for 1974 is \$24 million.

Reorganization of the operations of the Gas Division was commenced early in 1973. The plan is to consolidate several functions at Colombes, France, including research and management of the division, also manufacturing of industrial gas meters and gas expansion equipment. This program at Colombes will be completed in 1974. Also, the plant at Reims will be renovated in 1974; this facility will then have the capacity to manufacture 500,000 domestic gas meters annually.

In 1973 the Energy Division consolidated the production of measuring instruments at Montrouge. In 1974, initial investment will be made in a three-year program to complete decentralization of electric meter operations, by transferring them from Montrouge to Poitiers: management and research will be moved in July, 1975; the manufacturing of special meters will follow in 1976.

Substantial capital investment will be required for tooling of several new meters which will be introduced in 1974 and 1975.

The total cost of the capital program in 1974 will be substantially in excess of cash generated by Compteurs; however, this will appreciably improve profit margins in future years.

Outlook

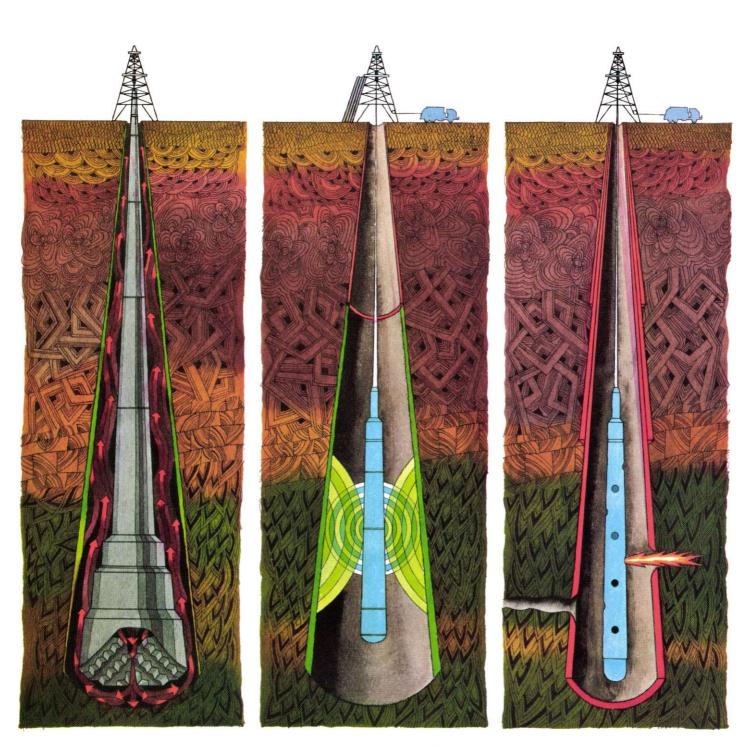
High order backlog at the beginning of 1974, large volume of incoming

orders early in the year for all divisions of Compteurs, new and better products, benefits of the recent and continuing physical relocation program, indicate improved results in 1974.

However, there is some cause for concern: continuing inflation which means higher material costs and wages; price controls; possible material shortages.

Longer term, Compteurs is in a good position. Within the next two years the relocation program will be completed—the cost of this will be behind us and the benefits of improved efficiency will be realized.

Compteurs will also benefit from the development of new energy sources. For example: Compteurs valves, controls and measuring equipment will be needed for construction of atomic power plants built to supply electricity. Demand will continue to increase for equipment to control and monitor distribution of gas and electricity and for metering equipment.



Schlumberger Wireline Services

Ever since I joined Schlumberger, quite often friends, stockholders, even relatives, say, "You work for a fine company, but what does Schlumberger really do?" Answering, invariably the words "logging," "wireline services" come up. These few pages explain for our 50,000 stockholders what Schlumberger's original business is and why our logging services are indispensable in the search for oil and gas. — JEAN RIBOUD

Three phases in the search for oil:

Drilling (left)—The drill bit rotates breaking the formation—drilling mud, forced down the drill pipe and up the well, lubricates the drill bit

Wireline logging (center)—A
Schlumberger down-hole instrument
at the end of a wireline is used to
measure physical properties of underground formations, such as electrical
resistance, sonic, or nuclear
properties.

and carries up cuttings.

Completion (right)—A Schlumberger perforating gun is lowered to the level of the oil reservoir and explosive charges are fired through the steel casing, permitting oil to flow into the well bore.

chlumberger wireline services are provided to the oil industry in more than seventy countries. These services have become as vital to the exploration and production of oil and gas as the x-ray is to the practice of medicine.

It is generally accepted that oil and gas are formed from the residue of plant and animal life and are accumulated in porous rocks such as sandstone and limestone. Some of these geological formations contain reservoirs of petroleum in commercial quantities.

To find these reservoirs, it is first necessary to locate geological areas where oil-bearing formations may be present. Seismic testing (shock waves) gives preliminary indications of structures which may contain oil but there is no reliable way to precisely measure these subsurface structures without drilling.

Even when a well is drilled, very little information is available to the geologist standing at the top of a hole which is several thousand feet deep and only a few inches in diameter. Often there is no evidence at the surface that the drill has penetrated an oil or gas reservoir.

To get this essential information, the drilling is interrupted periodically so that a Schlumberger mobile laboratory can lower various measuring instruments to the bottom of the drill hole on a line of wire-wrapped electrical cable-hence the term "wireline." As each instrument is pulled out of the hole, it measures the depth and physical properties of the various formations it passes. These measurements are transmitted on the wireline to a recorder in the mobile laboratory. The recorder in turn produces a graph, called a "log"; it shows a complete picture of subsurface formations-how deep, how thick, how porous and the oil and gas content. This log is essential to the determination of oil reserveslocation and quantity. Also, wireline logging services are indispensable for evaluating the production potential of a well and establishing the location of future wells.

Once oil has been located, a steel

casing is cemented from the surface to the bottom of the hole to avoid a cave-in and to keep water out of the hole. The well is then brought into production by perforating the steel casing at the depth of the oil reservoir by means of special explosive charges shot from a "gun" on the end of a wireline. At this time, various other wireline services are needed to prepare the well for production.

As wells start to age, production declines for numerous reasons. Log diagnosis can point to remedial action such as recompletion to produce from other zones in the well or stimulation to reawaken an old well. Here again, wireline logging tools enter the picture in the search for oil.

Schlumberger wireline services—little known outside the oil industry, but indispensable within it—are today still the most profitable of the company's operations.

A Glimpse of Logging Technology

Wireline logging provides reliable information on subsurface structures. This information is needed to locate oil or gas bearing zones; to determine depth, thickness and quantity of oil or gas in place; and to indicate the percentage of the rock mass which is fluid rather than solid (porosity).

To get this subsurface data many forms of energy are used: electricity, sound, and natural or induced radiation are the most frequent. Welllogging techniques used by Schlumberger include:

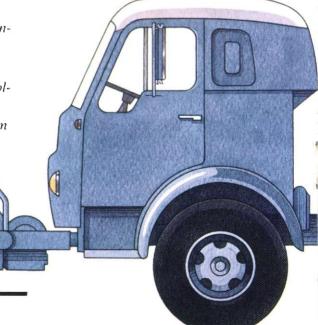
Resistivity. Rocks and hydrocarbons have a high electrical resistance, but water, especially if it is salty, has a lower resistance. An electrical current is made to flow in the formation, and resistance to cur-

rent flow is measured. Resistivity measurement combined with other surveys is the primary method of identifying hydrocarbon content.

Sound. In a sonic tool, high frequency sound is emitted from one end of the tool and detected by several receivers elsewhere in the tool. The time it takes for sound to travel over a constant distance can be related to formation porosity and other geophysical properties. Porosity de-

Cutaway view of a Schlumberger well-logging truck.

- **A.** Electronic instrumentation panels which monitor and control down-hole tools.
- B. Log recorder.
- **C.** Operator's console for controlling wireline winch.
- **D.** Darkroom for developing film of log.
- E. Winch drum contains up to five miles of wireline cable.
- **F.** Spooling arm and depth measuring device.
- **G.** Auxiliary winch.
- **H.** Diesel-electric generator.

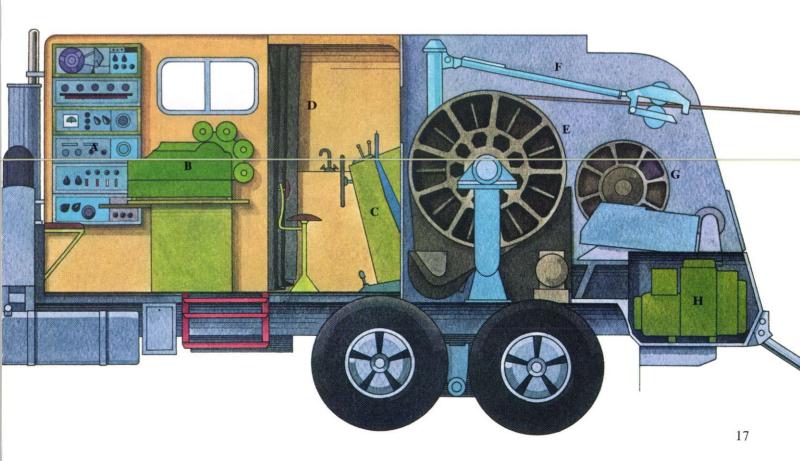


fines the void space in the formation which may hold liquid or gas.

Radiation. By detecting natural gamma rays emitted by formations, shales can be distinguished from sands and carbonates. Other tools use radioactive sources to introduce neutrons into the formation; the resulting emissions reflect porosity by indicating the amount of hydrogen present in the formation or indicate the amount of chlorine (an element

of salt water) present. A tool which sends gamma rays into the formation gives an indication of formation density—hence porosity. Another tool which emits strong pulses of neutrons measures the return flow of gamma rays resulting from changes in the atomic structure of the formation. Most radiation measurements can be made through well casing—they are the primary diagnostic tools for remedial work on older wells.

Stratigraphic information. It is important to know the direction and angle (dip) of the various layers or strata in the formation. Information gathered by Schlumberger dipmeters helps overall reservoir analysis. In many cases, a dipmeter analysis of one well may assist the geologist to determine where to drill the next well. Schlumberger dipmeters are multiple resistivity tools combined with gyroscopes and other "naviga-



tion" devices to measure direction and angle.

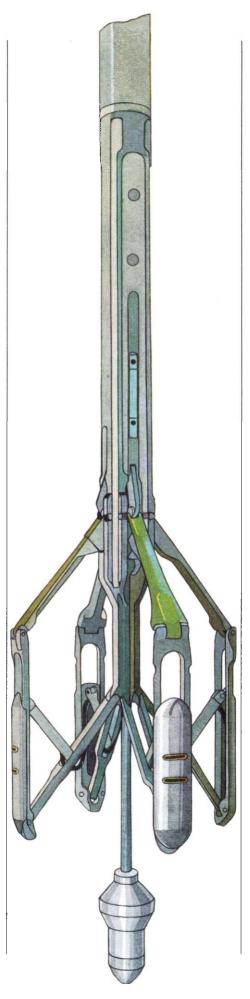
Other wireline services include

Other wireline services include taking samples of formations and downhole fluids—permitting surface measurement of downhole pressures; placing mechanical seals to isolate zones for testing and production; measuring fluid flows; and perforation of well casing with explosives to allow oil or gas to flow.

It is not enough to accumulate data; expert interpretation is required. A quick review of the log at the well site is made by both the customer and the Schlumberger engineer. Often this results in the immediate running of another, more specialized log to pinpoint a promising zone.

Various logs run on the same well must be interpreted in combination. This is often done with the aid of a

Dipmeter sonde—During logging the four arms are opened to press against the well bore. Electrical signals from the arms and other sensors in the body of the sonde are recorded to compute the direction and angle of dip of underground formations. The tool is also used to measure the deviation from vertical of the bore-hole. This information is useful in the location of other wells.

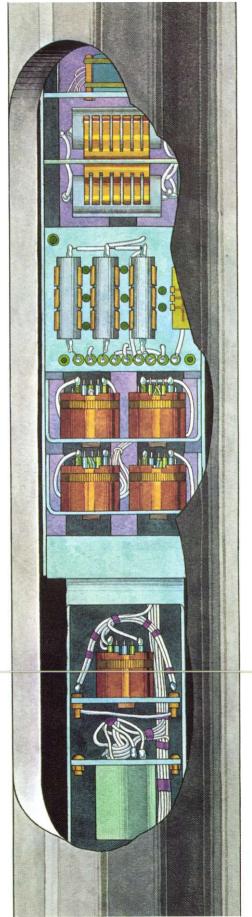


computer. When speed is essential, while the log is being run, data is imprinted on magnetic tape and sent by telecommunications to a Schlumberger computer center for immediate computer processing and analysis. On occasion, data has been sent between continents by satellite.

Tools Built for Tough Environments

Oilfield wireline equipment must withstand the shock and vibration of transport by land, sea or air, the salt spray offshore, and temperatures ranging from the hot jungle to the frozen arctic. Downhole tools must withstand the "pressure-cooker" environment of the well, where the operating temperature may be over 500°F and pressure may be as high as 20,000 pounds per square inch. Under these conditions, normal electronic components and insulators fail, plastic materials melt or burn. Also, downhole tools often encounter corrosive conditions which weaken the hardest metals. The wireline itself must withstand corrosion and the stress of both weight and winch tension with minimum stretching, otherwise the depth measurement on the log would be inaccurate.

Schlumberger downhole tools contain the most sophisticated electronic components available. It is the equivalent of squeezing a high-precision



oscilloscope into a four-inch pipe, then expecting it to work perfectly while banging it with a hammer and boiling it in acid.

Such equipment cannot be bought off the shelf; Schlumberger must design and manufacture it in-house. In 1974 the company will spend \$60 million to produce wireline service equipment.

Most of this equipment is manufactured at two plants—one in Houston, Texas and the other in Clamart, a suburb of Paris. Both plants build downhole tools and surface instruments; both plants have assembly lines for the construction of surface laboratories. Only the truck chassis used for land-based mobile units and power units are bought from outside suppliers; all technical equipment is Schlumberger-designed and built.

Schlumberger wireline cable is manufactured either by a subsidiary in Houston or by outside suppliers to our specifications.

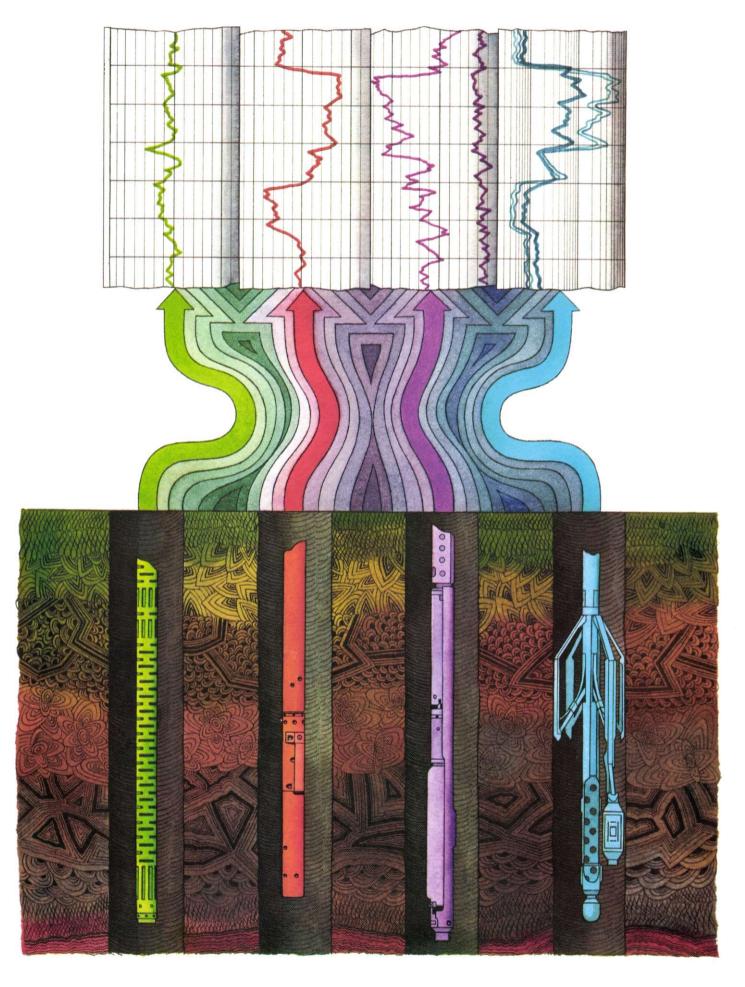
Each laboratory, whether truck-mounted for land use or skid-mounted for use on offshore plat-forms, is self-contained. It has a motor-generator, electronic control panels for the engineer in charge, winch controls for the operator and a small photographic dark room to develop the film on which log data is recorded.

This Year – \$20 Million for Research

A continuous research program spanning 50 years has played a fundamental part in Schlumberger leadership in wireline services. In 1974, \$20 million will be spent on wireline research alone-this has doubled in five years. Altogether 620 persons, including 250 engineers and scientists take part in wireline research and development. Basic studies at the Schlumberger Doll Research Center in Ridgefield, Connecticut are supplemented and extended by development and engineering in Houston and Clamart. Research and development money is spent for invention of new logging tools, for improving the precision and reliability of existing tools every year, for the creation of new interpretation techniques.

It may be years between a laboratory concept and the introduction of a new tool to customers. Proto-

Cutaway view shows a portion of the electronic section of a Dual Laterolog down-hole instrument. The thick steel casing is needed to protect circuitry from pressures to 20,000 psi. The electrical circuits must withstand temperatures of 350°F or higher.



type development is followed by extensive testing, both in Schlumberger test wells and in the oilfields.

Often, significant changes must be made to meet various environmental conditions. Too, there is extensive feedback from field engineers with valuable suggestions for improvement.

more in rese interpretation.

In simple the terminol plained the toproviding with valuable suggestions for improvement.

The computer is used more and

Four typical well-logging instruments (from left to right).

Sonic Instrument—Measures sound velocity in the formation along the borehole, indicating porosity.

Compensated Neutron Instrument— Neutrons radiated from the tool measure hydrogen content of formations and give another porosity reading.

Compensated Density Instrument— Gamma-rays radiated from a nuclear source in the tool measure the density of the formation.

Dual-Laterolog/Micro Spherically Focused Combination Instrument— Electrical current sent into the formation measures resistivity, a key factor in determining hydrocarbon content.

Above, are actual examples of logs recorded at identical depth in the same borehole.

more in research to improve log interpretation.

In simple terms, we have defined the terminology used and have explained the technology involved in providing wireline services to the oil industry.

There are many other essential features to wireline operations—quality of service, integrity in handling confidential information, the field engineer, the operators, their continuous training, all essential to a highly technical service business—but this is another story for another time.

Data from the four logging instruments on the opposite page were merged by computer to produce a Computer Processed Interpretation, 220 feet of computed log as the client would receive it. The figure on the left shows the depth in feet—each division corresponds to two feet.

Section 1 shows the percentage by volume of – rock (B), hydrocarbons (A), and water (C).

Sections 2, 3, and 4 show physical characteristics of the rocks, the amount of water in the formation compared to hydrocarbons, and the porosity and types of rocks.

SECTION SECTION SECTION

SCHLUMBERGER LIMITED

(Schlumberger N.V., Incorporated in the Netherlands Antilles) and Subsidiary Companies

Consolidated Balance Sheet – Assets

	December 31,		
	1973	1972	
	(Stated in the	nousands)	
CURRENT ASSETS:		V 0.00 2	
Cash	\$ 10,583	\$ 11,440	
Short-term investments, at cost (approximately market)	134,614	102,801	
Receivables less allowance for doubtful accounts			
(1973-\$6,070; 1972-\$6,338)	271,897	234,224	
Inventories	190,686	167,085	
Other current assets	19,329	17,070	
	627,109	532,620	
INVESTMENTS IN AFFILIATED COMPANIES	38,080	34,692	
	24,246	25,572	
LONG-TERM INVESTMENTS AND RECEIVABLES			
FIXED ASSETS less accumulated depreciation	333,620	287,543	
INTANGIBLE ASSETS	28,842	30,053	
OTHER ASSETS	5,387	4,483	
	\$1,057,284	\$914,963	

Consolidated Balance Sheet – Liabilities and Stockholders' Equity

	December 31,	
	1973	1972
	(Stated in t	housands)
CURRENT LIABILITIES:		
Accounts payable and accrued liabilities	\$ 157,116	\$134,440
Estimated liability for taxes on income	94,235	65,966
Bank loans	72,862	78,096
Dividend payable	5,506	4,561
Long-term debt due within one year	7,029	7,025
	336,748	290,088
LONG-TERM DEBT	102,610	82,646
OTHER LIABILITIES AND RESERVES	26,870	24,965
MINORITY INTEREST IN SUBSIDIARIES	15,129	16,020
	481,357	413,719
STOCKHOLDERS' EQUITY:		
Common stock	139,186	130,619
Income retained for use in the business	436,741	370,625
	575,927	501,244
	\$1,057,284	\$914,963

SCHLUMBERGER LIMITED

(Schlumberger N.V., Incorporated in the Netherlands Antilles) and Subsidiary Companies

Consolidated Statement of Income

	Year Ended December 31,	
	1973	1972
	(Stated in thousands)	
REVENUES:		
Sales and services	\$922,292	\$792,583
Interest and other income	23,537	19,479
	945,829	812,062
EXPENSES:		
Cost of goods sold and services	581,740	516,966
Research and engineering	41,314	34,347
Marketing	65,028	57,516
General	94,259	75,928
Interest	15,935	13,636
Taxes on income	55,191	43,436
	853,467	741,829
NET INCOME	\$ 92,362	\$ 70,233
Net income per common share and common equivalent share	\$ 2.53	\$ 1.94

Consolidated Statement of Stockholders' Equity

	Comme	on Stock	Income retained for
	Shares Outstanding	Amount	use in the business
		(Stated in	thousands)
Balance, January 1, 1972	34,762,092	\$ 75,283	\$335,965
Purchase of treasury shares	(295,300)	(794)	(17,816)
Treasury shares issued in connection with debenture conversion	1,838,979	53,726	_
Exercise of stock options	105,703	2,404	_
Net income	_	_	70,233
Dividends declared (\$.493 per share)	_	1—1	(17,757)
Balance, December 31, 1972	36,411,474	130,619	370,625
Purchase of treasury shares	(67,400)	(249)	(6,174)
Exercise of stock options	296,630	8,816	_
Net income	_	_	92,362
Dividends declared (\$.55 per share)	_	_	(20,072)
Balance, December 31, 1973	36,640,704	\$139,186	\$436,741

(Schlumberger N.V., Incorporated in the Netherlands Antilles) and Subsidiary Companies

Consolidated Statement of Changes in Financial Position

	Year Ended December 31, 1973 1972	
	(Stated in t	
COLID CE OE WORKING CADITAL	(Stated III)	mousands)
SOURCE OF WORKING CAPITAL Net income	\$ 92,362	\$ 70,233
Add (deduct) amounts not affecting working capital:	Ψ	4 /0,200
Depreciation	58,267	55,104
Amortization of intangibles	889	791
Equity in net income of 50% owned companies	(6,420)	(4,251)
Other—net	(3,758)	5,017
	141,340	126,894
Working capital provided from operations	5,132	5,056
Working capital from sale of certain operations	3,132	53,726
Stock issued for debenture conversion	4,358	55,720
Decrease in investments and long-term receivables	V-10-11-11-11-11-11-11-11-11-11-11-11-11-	68,086
Increase in other long-term debt	56,145 7,977	9,892
Retirement of fixed assets	8,816	2,404
Proceeds from exercise of stock options		
Total working capital provided	223,768	266,058
APPLICATION OF WORKING CAPITAL		
Interests acquired in consolidated companies, less		
net working capital acquired	2,453	1,681
Additions to fixed assets	114,558	92,732
Dividends declared	20,072	17,757
Debentures converted or redeemed		62,037
Reduction of other long-term debt	36,281	34,373
Purchases of treasury stock	6,423	18,610
Increase in investments and long-term receivables	_	6,247
Other-net	(3,848)	7,064
Total working capital applied	175,939	240,501
NET INCREASE IN WORKING CAPITAL	\$ 47,829	\$ 25,557
INCREASE IN WORKING CAPITAL CONSISTS OF:		
Increase (decrease) in current assets:		
Cash and short-term investments	\$ 30,956	\$ 24,424
Receivables	37,673	17,120
Inventories	23,601	(10,294)
Other current assets	2,259	(592)
(Increase) decrease in current liabilities:	0.1 5500	
Accounts and dividend payable	(23,621)	137
Estimated liability for taxes on income	(28,269)	(20,246)
Bank loans and debt due within one year	5,230	15,008
NET INCREASE IN WORKING CAPITAL	\$ 47,829	\$ 25,557

Notes to Consolidated Financial Statements

Summary of Accounting Policies

he consolidated financial statements of Schlumberger Limited have been prepared in accordance with accounting principles generally accepted in the United States of America. Within those principles, the company's more important accounting policies are set forth below.

PRINCIPLES OF CONSOLIDATION The consolidated financial statements include the accounts of all significant majority-owned subsidiaries. Significant 50% owned companies are accounted for under the equity method and are carried in Investments in Affiliated Companies at Schlumberger's share of net assets; a prorata share of after-tax earnings of these companies is included in "other income." Other investments in affiliated companies are carried at cost (1973-\$9.9 million; 1972-\$10.4 million) less allowances for possible losses which, based in part on unaudited figures, approximates Schlumberger's share of underlying equity.

TRANSLATION OF NON-U.S. CURRENCIES

Balance sheet items recorded in currencies other than U.S. dollars are translated at current exchange rates except for oilfield inventories, fixed and intangible assets and long-term investments which are translated at historical rates. Revenues and expenses are translated at average current rates of exchange except that depreciation of fixed assets and amortization of intangible assets are translated at historical rates. Translation adjustments are taken up in income currently. Gains on forward exchange contracts are recognized in income when determined and losses are provided for currently.

INVENTORIES

Inventories are stated principally at the lower of average or standard cost or market.

FIXED ASSETS AND DEPRECIATION Fixed assets are stated at cost less depreciation, which is provided for by charges to income over the estimated useful lives of the assets by the straight-line method. Fixed assets include the cost of company manufactured oilfield technical equipment for use in wireline operations. Expenditures for renewals, replacements and betterments are capitalized. Upon sale or other disposition, the applicable amounts of asset cost and accumulated depreciation are removed from the accounts and the net amount, less proceeds from disposal, is charged or credited to income.

Maintenance and repairs are charged to operating expenses as incurred.

INTANGIBLE ASSETS

Intangible assets represent largely the excess of purchase price over fair value of net tangible assets of businesses acquired. Amounts (\$16.0 million) relating to acquisitions which took place principally in 1970 will not be amortized unless a diminution of value occurs. The remainder is being amortized over periods of up to 40 years.

DEFERRED BENEFIT PLANS
The company and its subsidiaries
have several voluntary pension and
other deferred benefit plans covering
substantially all officers and employees, including those in countries
other than the U.S.A. These plans
are fully funded with trustees in
respect of past and current services.
Charges to expense are based upon
costs computed by independent
actuaries.

In France, the principal pensions are provided for by union agreements negotiated by all employers within an industry on a nationwide basis. Rights to future retirement benefits vest currently, but monetary amounts are not assigned to these rights until year of payment. Bene-

fits when paid are not identified with particular employers, but are made from funds obtained through concurrent compulsory contributions from all employers within each industry, based on employee salaries. These plans are accounted for on the defined contribution basis, and each year's contributions are charged currently to expense.

TAXES ON INCOME

Schlumberger, its subsidiaries and its 50% owned companies, compute income taxes payable based on taxable income which may differ from pretax income in the financial statements due to differences in periods in which items are recognized for tax purposes and for financial accounting purposes. These differences are attributable principally to the use of accelerated methods of depreciation for income tax purposes and unrealized profits on intercompany sales of inventories and fixed assets. Appropriate provision is made for deferred income taxes.

Investment credits and other allowances provided by income tax laws of the U.S.A. and other countries are credited to current income tax expense on the flow-through method of accounting.

Approximately \$390 million of consolidated income retained for use in the business at December 31, 1973 represents undistributed earnings of subsidiaries and 50% owned companies. Since it is the policy of the company to reinvest such earnings in the business, no provision has been made for income taxes which would be payable at rates of 3% to 10% on most of these earnings if they were to be remitted to the parent company.

COMMON STOCK

Common stock is carried at the stated value or proceeds of issued shares, increased by proceeds from sales of treasury shares and reduced prorata for shares reacquired. Any excess of cost of reacquired shares over the prorata amount is treated as a reduction of income retained for use in the business.

EARNINGS PER SHARE

Earnings per share are computed by dividing net income (plus interest on the convertible debentures during the period they were outstanding) by the average number of common shares and common equivalent shares outstanding during the year. In computing the average shares, the number of shares outstanding during the period April 1970 to May 1972 was increased by those issuable on conversion of debentures and assumed exercise of stock options.

RESEARCH AND ENGINEERING All research and engineering expenditures are expensed as incurred, including costs relating to patents or rights which may result from such expenditures.

Geographical Distribution of Revenues and Net Assets

The geographical distribution of revenues in 1973 and 1972 and net assets at December 31, 1973 was approximately as follows:

	Reve	nues	Net Assets Dec. 31,
	1973	1972	1973
U.S.A. &			
Canada	27%	30%	29%
France	33	31	21
Other	40	39	50
	100%	100%	100%

Fixed Assets

A summary of fixed assets follows:

	December 31,	
	1973	1972
	(Stated in	millions
Land	\$ 21.4	\$ 20.6
Buildings and improvements Machinery and	116.0	109.2
equipment	498.8	426.5
Total cost	636.2	556.3
Less—accumulate depreciation	$ \begin{array}{r} \text{d} \\ \hline 302.6 \\ \hline $333.6 \end{array} $	268.8 \$287.5

Long-Term Debt

At December 31, 1973, consolidated long-term debt, excluding amounts maturing within one year, consisted of the following:

	tated in illions)
Payable in French francs:	
Compteurs	
and subsidiaries:	
Debentures, 5%-6.5%	
due 1975-1984	\$ 12.7
Loans from Crédit	
National, 6%-7.25%	
due 1975-1984	5.0
Loans from French Banks	S-
(Banking Pool), 8.25%	
plus 0.5% commitment	
fee, due 1978-1981	41.7
Loan from Société Généra	ale,
8% due 1975-1977	10.4
Other loans	3.5
	73.3
Other consolidated	
companies	11.4
•	84.7
Payable in U.S. dollars	12.7
Payable in other currencies	5.2
	\$102.6

Long-term debt will be due \$10.8 million in 1975, \$9.6 million in 1976, \$23.2 million in 1977, \$15.6 million in 1978 and \$43.4 million thereafter.

Common Stock

Transactions under stock option plans during 1973 and 1972 were as follows:

	Number of Shares Under Option	
	1973	1972
January 1,	620,555	635,478
Options granted for five years	s 34,500	96,450
Options exercised	(296,630)	(105,703)
Options lapsed or terminated	(24,129)	(5,670)
December 31,	334,296	620,555

The 334,296 shares under option at December 31, 1973 were held by 281 officers and key employees at option prices ranging from \$21.27 to \$130.94; options for 161,525 shares were exercisable at that date. A balance of 590,388 shares of common stock remained available for future option under the plans. During 1973 and 1972, 183,230 and 19,176 previously unissued shares, respectively, were sold on exercise of stock options.

Common stock outstanding at December 31, 1973 and 1972 excludes 223,460 and 293,784 reacquired shares held in treasury and 877,884 and 502,884 shares issued to a subsidiary in 1971.

Leases and Lease Commitments

Total rental expense was \$12.7 million in 1973 and \$11.9 million in 1972.

Future minimum rental commitments under noncancelable leases for years ending December 31 are: 1974—\$3.6 million; 1975—\$2.7 million; 1976—\$1.9 million; 1977—\$1.4 million and 1978—\$1.2 million. For the ensuing three five-year periods, these commitments decrease from \$4.5 million to \$1.1 million. The minimum rentals over the remaining terms of the leases aggregate \$15 million. Noncancelable rental commitments are principally for real estate and office space.

Potential Tax Claim

The U.S. Internal Revenue Service is currently examining Schlumberger's 1967-1969 U.S. tax returns. While the examination has not been completed, the company has been advised informally of a potential claim for additional income taxes. The principal parts of the potential tax assessment (excluding interest) arise from nonrecurring transfers of assets from a subsidiary to the parent company (\$24 million) and from continuing wireline operations on the U.S. outer continental shelf (\$6 million). The company maintains that the tax effects of these transactions were properly determined and reported. While it is expected that litigation will be required to resolve such issues, independent counsel are of the opinion that the company's position will prevail.

Supplementary Information

Short-term investments are collectible mainly in U.S. dollars and included interest bearing time deposits of \$119.7 million and \$85.1 million at December 31, 1973 and 1972, respectively.

Interest income was \$10.4 million in 1973 and \$7.2 million in 1972.

Inventories at December 31, 1973 comprised \$32.4 million of operating materials and supplies for oil-field services and \$158.3 million applicable to other operations—principally electronic equipment and gas, water and electricity meters.

In 1973, expense of the deferred benefit plans as well as the compulsory contributions for French retirement benefits amounted to \$10.9 million and \$7.9 million; 1972 amounts for such plans were \$9.4 million and \$5.3 million. During 1973 the company amended benefit provisions and changed the actuarial cost method and certain assumptions used in the actuarial computation of several plans. These changes did not have a material effect on net income for the year.

Operating loss carryforwards available to certain non-U.S. subsidiaries as deductions from their future income, if earned, amounted to \$30 million at December 31, 1973. Of this amount, \$5.7 million expires in 1974, \$4.2 million in 1975, \$2.8 million in 1976, \$2.7 million in 1977 and \$2.0 million in 1978. Substantially all of the remainder can be carried forward indefinitely. Additionally, there are unrecorded contingent future income tax deductions originating in Compteurs as of time of acquisition.

Report of Independent Accountants

PRICE WATERHOUSE & CO.

Sixty Broad Street, New York 10004 February 14, 1974

TO THE BOARD OF DIRECTORS AND STOCKHOLDERS OF SCHLUMBERGER LIMITED:

In our opinion, the accompanying consolidated balance sheets and related consolidated statements of income, stockholders' equity and changes in financial position present fairly the financial position of Schlumberger Limited and its subsidiaries at December 31, 1973 and 1972, the results of their operations and the changes in financial position for the years then ended, in conformity with generally accepted accounting principles consistently applied. Our examinations of these statements were made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

Shi Waterham 6.

Operating Units

Oilfield Operations

Major Plants and Headquarters: Houston, Paris, Caracas, Calgary

WIRELINE SERVICES

Charles B. Evans, Executive Vice President

Schlumberger Well Services U.S.A.

Schlumberger of Canada Canada

Schlumberger Surenco Latin America

Société de prospection électrique Schlumberger Europe

Schlumberger Overseas

Asia, Africa, Australia

Wireline service companies provide measurements of physical properties of underground formations which help locate and define reservoirs and assist in completion, development and production phases of oil wells.

Vector

Cables for well logging, oceanography and geophysical exploration.

ALLIED OILFIELD SERVICES

Roland Génin, Executive Vice President

Forex Neptune

Offshore and land drilling

contractor operates 48 land rigs, and 11 offshore rigs in 16 countries; three more offshore units are under construction.

Flopetrol

Technical services and equipment for well completion, production, and well testing.

Johnston

Mechanical services and tools for completion, production, and secondary recovery; tools to aid drilling and fishing operations; drill stem testing.

Dowell-Schlumberger (50% owned) Cementing, acidizing, fracturing, formation testing and directional drilling services.

Electronics-U.S.A.

Michel Vaillaud, Vice President

Major Locations: Benton Harbor, Michigan, Archbald, Pa., Newark, N.J., Princeton, N.J., Sarasota, Fla.

Weston Instruments

Panel and portable meters, aircraft instruments, laboratory instruments.

Weston Components

Potentiometers, x-ray gages, electronic and mechanical subcontracting.

EMR

Telemetry data systems and instruments, photomultiplier tubes.

Heath

Electronic equipment in kit form for home entertainment, electronic testing and measuring, amateur radio, and hobbies; assembled educational and laboratory instruments.

Meters and Electronics – Europe

Jérôme Seydoux,
Executive Vice President
Major Locations: Besançon,
Châteauroux, Illies, Massy,
Montrouge, Paris, Poitiers,
Reims, Rueil, Saint-Etienne,
Villacoublay, Farnborough,
Barcelona, Frosinone, Milan,
Brussels, Dordrecht, Munich, Vienna

Compteurs—Schlumberger

Industrial and domestic electricity, gas and water meters; equipment for electrical power systems; industrial process controls.

Malbranque—Serseg

Industrial valves; specialized valves for the oil industry.

Schlumberger Instruments and Systems

Electronic measuring and test instruments; electronic data systems; transducers.

Directors and Officers

Directors

JACQUES DE FOUCHIER

President,

Compagnie Financière de Paris et des Pays-Bas

WILLIAM J. GILLINGHAM*

CHARLES GOODWIN, JR.

Partner, Shearman & Sterling

New York

ELISHA GRAY II °

Chairman, Finance Committee, Whirlpool Corp., Benton Harbor

JOSEPH C. HUTCHESON, III ° Partner, Baker & Botts, Houston

PAUL A. LEPERCQ **

President, Lepercq,

de Neuflize & Co.

New York

GEORGE DE MENIL

Assistant Professor of Economics,

Princeton University

JOHN E. RHODES

JEAN RIBOUD **

Chairman of the Board

FRANÇOISE SCHLUMBERGER PRIMAT

Director, Schlumberger Museum

Paris

BENNO C. SCHMIDT °

Managing Partner

J. H. Whitney & Co. New York

JEROME SEYDOUX *0

AME VENNEMA **

EDWIN N. WEST

JEROME B. WIESNER

President, Massachusetts Institute

of Technology, Cambridge

Officers

JEAN RIBOUD

President

and Chief Executive Officer

AME VENNEMA

Chairman, Executive Committee

WILLIAM J. GILLINGHAM

Senior Advisor to the President

JOHN E. RHODES

Chairman, Finance Committee

CHARLES B. EVANS

Executive Vice President

ROLAND GENIN

Executive Vice President

JEROME SEYDOUX

Executive Vice President

EDWIN N. WEST

Secretary and General Counsel

HERBERT G. REID

Vice President-Finance

JEAN BABAUD

Vice President

LOUIS E. MAGNE

Vice President

NICK A. SCHUSTER

Vice President

MICHEL VAILLAUD

Vice President

JAMES H. POYNER

Controller

JEROME J. HAYES

Treasurer

^{*} Member Executive Committee

Member Finance Committee
 Member Audit Committee

Five-Year Financial Summary

	1973	1972	1971	1970	1969
	(Stated in millions)				
FOR THE YEAR					
Revenues:					
Sales and services	\$922.3	\$792.6	\$695.9	\$578.5	\$420.6
Interest and other income	23.5	19.5	14.5	13.3	13.9
	945.8	812.1	710.4	591.8	434.5
Research and engineering	41.3	34.3	31.3	26.7	21.1
Taxes on income	55.2	43.4	30.1	27.8	28.5
Net income	92.4	70.2	56.2*	49.4	46.3
Depreciation of fixed assets	58.3	55.1	45.7	37.7	32.0
Amortization of intangible assets	.9	.8	1.6	1.6	2.1
Net income plus depreciation and amortization	151.6	126.1	103.5*	88.7	80.4
Fixed asset additions, less retirements	106.6	82.8	71.7	59.3	53.6
AT DECEMBER 31					
Cash and short-term investments	145.2	114.2	89.8	76.8	91.0
Inventories	190.7	167.1	177.4	168.6	102.2
Working capital	290.4	242.5	217.0	206.2	179.7
Current ratio	1.9	1.8	1.8	1.9	2.6
Fixed assets:					
Cost	636.2	556.3	511.5	458.4	333.0
Accumulated depreciation	302.6	268.8	244.5	221.2	185.0
Cost, less depreciation	333.6	287.5	267.0	237.2	148.0
Stockholders' equity	575.9	501.2	411.2	377.0	344.3
Total assets	1,057.3	915.0	861.2	763.8	473.7
SHARE DATA**					
Average shares and equivalent shares outstanding (thousands)	36,470	36,599	37,043	36,384	34,719
Net income per share	\$ 2.53	\$ 1.94	\$ 1.58*	\$ 1.41	\$ 1.33
Dividends paid per share	\$0.525	\$0.485	\$0.467	\$0.467	\$0.427

*Before extraordinary net gains.

REGISTRARS Morgan Guaranty Trust Company of New York First City National Bank Houston, Texas STOCK TRANSFER AGENTS First National City Bank New York City Bank of the Southwest Houston, Texas

^{**}Adjusted for three-for-two stock split in May 1969 and three-for-one stock split in September 1972.

