OCTOBER/NOVEMBER 1965

THE PURE OIL NEWS

SPECIAL UNION OIL ISSUE

COVER PICTURE

On April 29, 1965, Robert L. Milligan, left, President of The Pure Oil Company, and Fred L. Hartley, President of Union Oil Company of California, signed agreement of merger.

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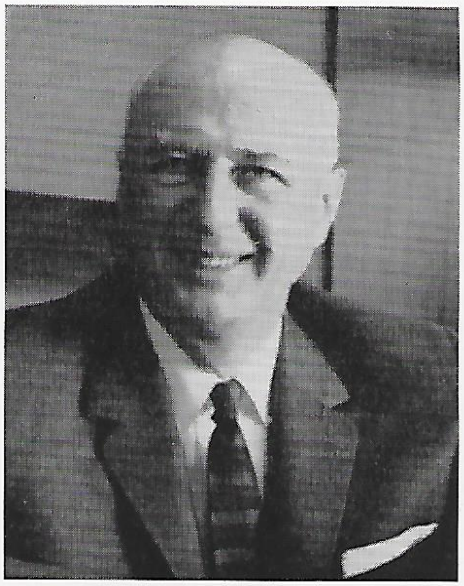
CONTENTS

PICTURE CREDITS

All photos for this issue provided by the Public Relations Department, Union Oil Company of California, Union Oil Center, Los Angeles, California.

A MESSAGE FROM ROBERT L. MILLIGAN



ON JULY 16, 1965, you and I became employees of Union Oil Company of California.

This special issue of *The Pure Oil News* is devoted entirely to your new Company. It is designed to give you an idea of the scope of Union's operations, the flavor of its past and its traditions, and a brief introduction to the men who run it.

Events have moved swiftly over the past year and a half for all of us at Pure. Out of these turbulent events came the merger with Union. This was the best possible outcome—merger on equitable terms with both companies bringing great strengths to the combined operation.

With all my heart I thank you for your unswerving loyalty during a highly difficult period.

Union Oil was founded in 1890 by Lyman Stewart and Wallace Hardison who emigrated from Pennsylvania to California to continue their search for oil. The firm had its early ups and downs and eventually became a leading regional oil company and a large corporation.

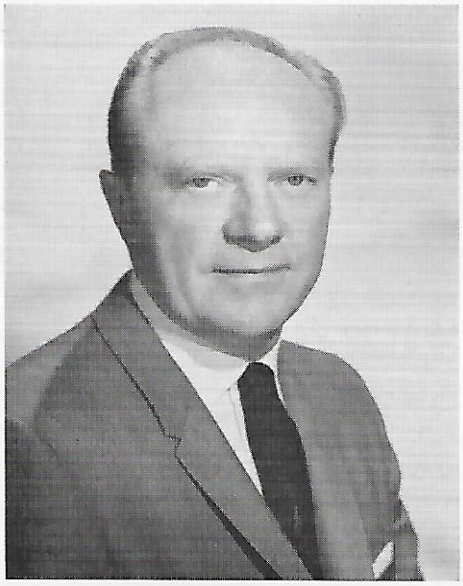
The merger with Pure marks the emergence of Union as a national company.

The new company markets in 37 states, including Alaska and Hawaii, and has crude oil and liquid reserves of 1,150,000,000 barrels and natural gas reserves of 8.8 trillion cubic feet.

The Pure Oil Company Division and Pure Oil employees form an integral part of a great new company whose future is unlimited.

Robert L. Milligan

A MESSAGE FROM FRED L. HARTLEY



THE OBJECTIVE of this special edition of *The Pure Oil News* is to give you a better understanding of the operations and assets of Union Oil Company, plus a glimpse of some of the opportunities the merger of Union and Pure have brought to all of us.

On October 17, Union Oil Company completed 75 years of operation. While this period has been one of growth, of change, and occasionally even crisis, no other event in the Company's history is as significant to our future as the merger of The Pure Oil Company into Union Oil Company. Never have the prospects of the Company held greater promise than they do today.

Union Oil Company's motto for many years has been "The Finest"—a term that refers both to our products and to our employees.

Union Oil's past growth in this highly competitive oil industry is a result of the skill and efforts of generations of dedicated employees—men and women who are The Finest. You are now a part of that group.

The merger has created a national oil company. But size is not an end in itself. Our objective—and what we can achieve together—is a Company that is stronger and more successful than either Pure or Union could be separately.

With the addition of the Pure Oil Division, Union Oil Company now has the increased financial strength which comes with annual sales of over $1 billion and assets of more than $1.6 billion.

Union has gained great strength and stability by the addition of Pure's refining and marketing operations in the Midwestern, Southern, and Southeastern states. Extending marketing coverage over 37 states has not only provided broader markets for our expanding production of raw materials, but has also greatly reduced the overall effects of local gasoline price wars—an unfortunate but seemingly inevitable part of our business.

Having larger and more diverse markets for crude oil, the Company is now better able to obtain and to profit from foreign exploratory concessions.

Pure Oil Division also brings substantial earning power from other assets and resources: Large crude oil and natural gas reserves, sizeable holdings of wildcat acreage, refining and transportation systems, and subsidiaries such as American Mineral Spirits Company, to name a few.

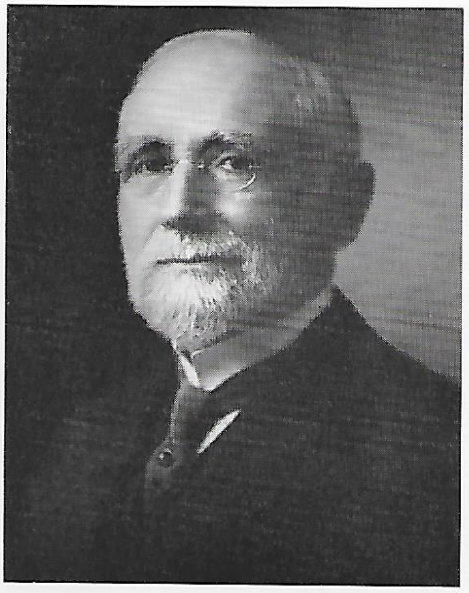
The future success of the now greatly expanded Union Oil Company depends on its employees—people who can find more oil and gas reserves, who can produce the fields more efficiently, who can develop new and better processes, who can use equipment more effectively, who can cut expenses and eliminate waste, and who can sell more products profitably.

Pure Oil brings with it a heritage of more than 50 years in the oil business. You are now joining hands with the employees of Union Oil Company to face the most challenging period in its 75 years of existence.

Your management firmly believes that this Company can be an outstanding success. We will do all we can to make it so. We are counting on your help.

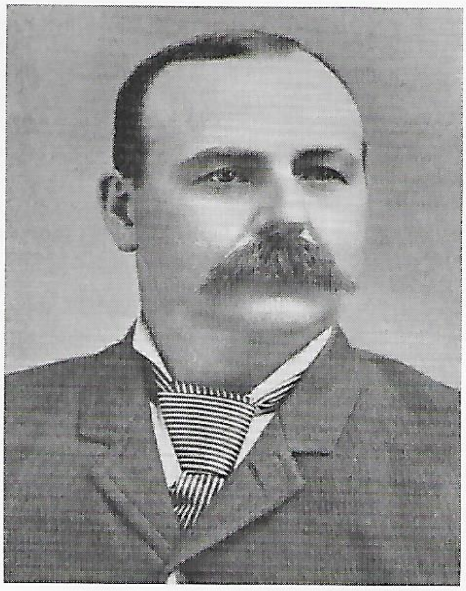
Fred L. Hartley

▲ This year is Union Oil Company's diamond anniversary. On October 17, 1890, the founders of the Company signed articles of incorporation in this two-story stone building in Santa Paula, California, about 60 miles northwest of Los Angeles. For a decade this was Union's headquarters, and this picture implies the building is still in use. The upper floor is used as a district office by Union's Exploration and Production Division. On the first floor is the California Oil Museum, a repository for a cable-tool drilling rig, drill bits, and other paraphernalia of the early oil days.



▲ Lyman Stewart, a co-founder of Union Oil Company and its president from 1894 to 1914. While serving as vice president in the early years he drew an allowance of $5 a day.

▼ Wallace Hardison, a co-founder of the Company, served as Union's treasurer for eight years.



Union Oil's past reflects a long struggle for oil reserves and new markets.

IN DOWNTOWN Santa Paula, California, about 60 miles northwest of Los Angeles, stands a two-story stone building where Union Oil Company of California was founded on October 17, 1890. The well-preserved building still is useful as a district exploration and production office. Up its wooden stairway daily climb a modern generation of workers, asking and answering the vital oil industry question: "Where shall we drill next?"

1890 - 1900

Seventy-five years ago, the three men who first walked up the stairway with that question in mind were a diverse trio. Lyman Stewart, of the three the hardest bitten by oil fever, had earned a small fortune in money and drilling experience in Pennsylvania during petroleum's toddling years. Then, beginning in 1883, he had sunk all he owned or could borrow into California's pioneering oil efforts. Stewart's loyal partner, Wallace Hardison, a Pennsylvanian who had made money in the West by cutting ties for a transcontinental railroad, was torn among oil, citrus growing, and politics—and was likewise a familiar borrower at the banks. Thomas R. Bard, a Civil War veteran who around 1865 drilled some of California's first dry holes before turning to the more lucrative prospects of farming, towered in the minds of the other two as a man of riches.

Besides Pennsylvania upbringings and Civil War memories, these three had other things in common. They were associated in one way or another in the ownership and control of three companies: The Torrey Canyon Oil Company, the Sespe Oil Company, and the Hardison and Stewart Oil Company (which also owned an oil marketing subsidiary called the Mission Transfer Company). They were also unanimous in the belief that the three companies could be operated more profitably as one.

When the trio and their associates trooped back down the stairway at Santa Paula that October 17 in 1890, they had founded Union Oil Company, capitalized at $5,000,000 but with no cash to speak of. Their 26 producing wells that year yielded 84,000 barrels of oil—one-fourth of California's production. But markets and profits were scarce—practically nonexistent.

The 1890's, gay to some folks, were tough and trying years to Union's founders. And the three top leaders had different minds as to how an oil company should "spud in." President Bard was cautious and conservative about money matters, believing that profits from the Company should be reinvested in "growth" industries such as farming, citrus, or real estate. Vexed at Stewart's insistence on reinvesting profits in further oil lands, Bard resigned in 1894 and quit as a director in 1900. Treasurer Hardison, generally favoring Stewart's proposals, grew weary after the first eight profitless years of oil pioneering and turned toward more promising ventures. But Lyman Stewart clung doggedly to his search for the black bonanza.

Succeeding Bard as the Company's president, Stewart drew only $5 per day during his first two years in office. Despite bouts of poor health and an endless succession of financial squeezes, he clung to his early visions of a successful, fully integrated oil company. He investigated nearly every known oil seep in California with the aim of acquiring lands for the future. In 1896 he had barely opened the new Oleum Refinery on San Pablo Bay to serve San Francisco before the company's first refinery at Santa Paula burned to the ground.

There were some real battles—no holds barred—for the control of oil assets in those days. Several secret but abortive attempts were made to gain control of Union Oil. Stewart, forewarned in each case, successfully rallied enough support to hang on. In one instance, when the control attempt was above-board, Stewart indicated a willingness to sell, if Union's personnel were included as part of the deal. The offer was refused and Union survived to become the West's largest independent oil company.

1900 - 1940

The next generation of men of Union Oil waged a vigorous campaign of development. Union's production of crude rose from 240,000 barrels in 1900 to 16,000,000 barrels in 1929—and remained generally steady during the depression years to 1940.

Contributing to the success were scores of drilling discoveries in the prolific oil areas of the San Joaquin Valley, the hilly coastal district around Santa Maria, and the rich Los Angeles basin.

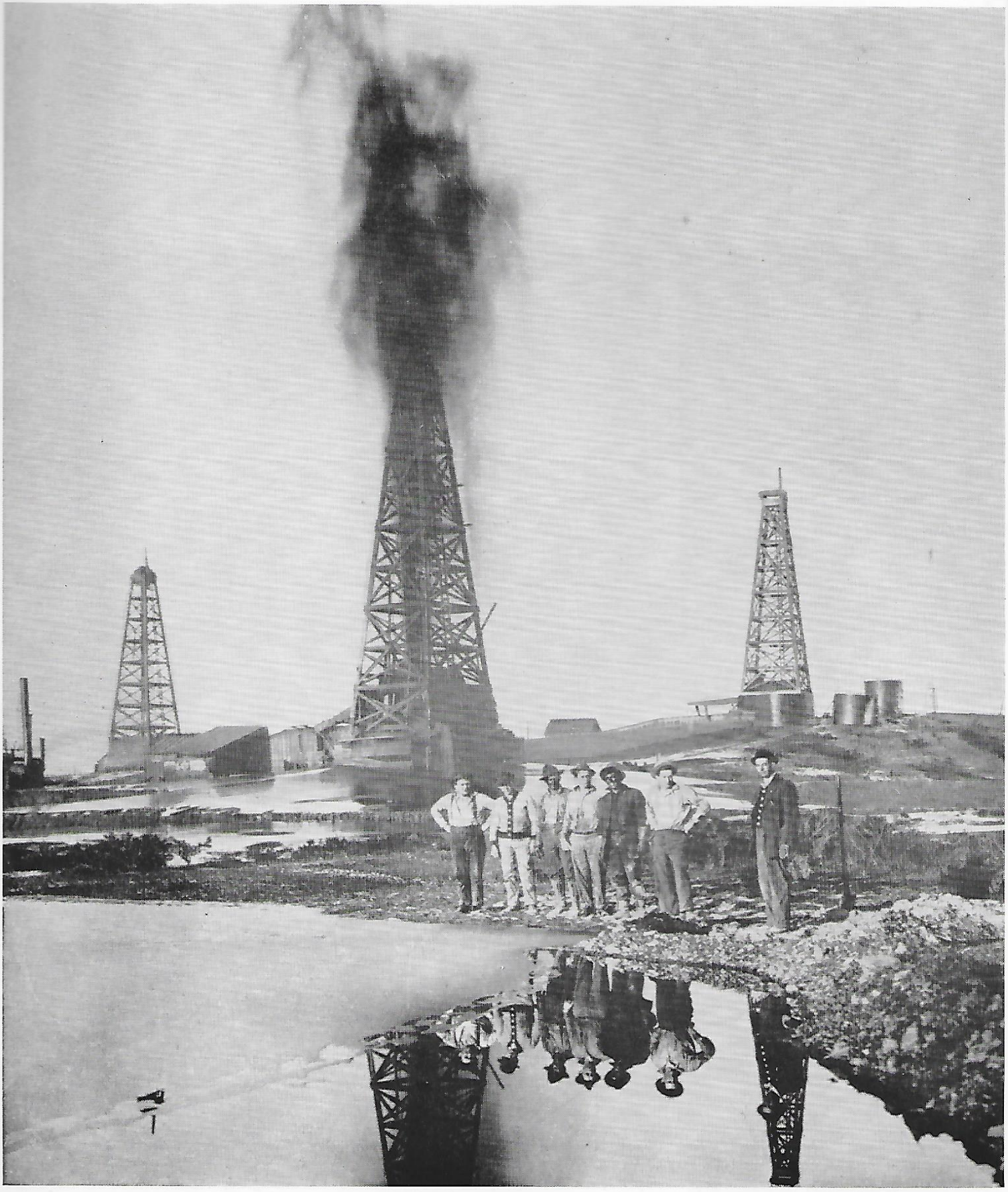
In the early days of oil, gushers signaled new discoveries and Union Oil had its share of the wild ones.

The most prodigious well of all was Lake View No. 1, which spewed out 5,600,000 barrels in its first nine months. On March 5, 1910, when the drillers had punched down to only 2,200 feet, oil came from the well in a solid stream 20 feet in diameter and spewed 200 feet skyward. The spray ranged over an area 15 miles around, ruined clothes, covered machinery, vehicles, and buildings, and provoked lawsuits.

Finally, on September 9, 1911, after 18 months of stupendous production, Lake View No. 1—the world's greatest gusher—ceased flowing as abruptly as it was born. Official estimates of Lake View's yield were 9,000,000 barrels of 32-gravity crude. Five million barrels were saved; the remainder was lost by evaporation and seepage.

Expanding oil production called for improved transportation and greater refining capacity. At Wilmington in the Los Angeles harbor area, Union's Los Angeles Refinery came on stream in 1917. Constructed were extensive gathering and pipeline systems connecting the oil fields with this refinery and with a refining and ship-loading installation at Avila, half way between Los Angeles and San Francisco. From the two major refineries a fleet of tankships sailed to distant Pacific markets.

Union's sales efforts have always been ambitious. Some of the first petroleum cargos venturing into ports of Oregon, Washington, Alaska, and Hawaii were



shipped from Oleum Refinery located near San Francisco. Other cargos moved as far west as Japan and the Malayan peninsula, south to Panama and South America, southwest to Australia, and east through the canal to the Atlantic seaboard.

Aggressive in all facets of the oil business, this second generation of Union Oilers took up head office residence in Los Angeles in 1900 and continued drilling. The Company, while remaining independent, grew to major proportions.

1940 - 1965

The depression in the 1930's slowed Union along with all the world's business. But with the first hint of better economic weather just prior to 1940, the Company began to stir. A stated ambition of the Company during the third era was to become not the largest oil company but rather the *finest*. Toward that objective, employees rolled up their sleeves and went to work.

First on the schedule was a thorough job of post-depression house cleaning and modernization. Costly new processing units were built at Los Angeles and Oleum Refineries, both plants becoming showplaces of industrial grooming as well as efficiency. A large coking plant was erected near Santa Maria; a refinery was purchased and modernized at Cut Bank, Montana; another small refinery, Edmonds, was built on Puget Sound near Seattle. Several hundred miles of main-trunk pipeline, much of it automated, was installed between fields and refineries.

A private communications system, served by 30 microwave stations, provided connection for most of the key California operating points. Pipeline transport of refined products was arranged to markets in Nevada and Arizona. Union Oil Center, near the freeway interchange in downtown Los Angeles, arose in 1958.

Union's Research Department dates back to 1893 when a tiny, one-room laboratory was erected near the Company's first refinery at Santa Paula. Union Research Center today is housed in a $10,000,000 campus-like complex at Brea, California, in the southeast suburbs of Los Angeles.

Overshadowing most of the answers to "Where shall we drill next?" has been Union's exploration success along the Gulf of Mexico. Finding oil on the first try at White Lake, Louisiana, in 1940, Company drillers began a string of discoveries now measured by more than 500 oil and gas wells in 68 separate fields. The Gulf Division's daily allowable production alone amounts to around 35,000 barrels of crude oil and 500,000,000 cubic feet of natural gas.

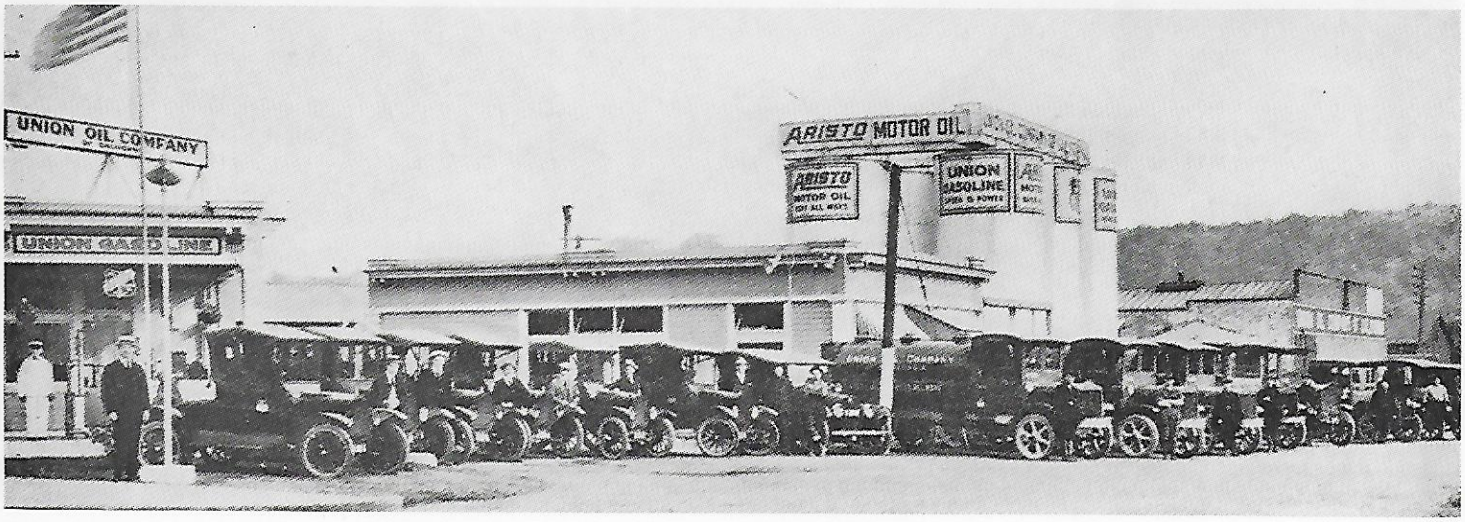
The merger of The Pure Oil Company into Union Oil Company on July 16, 1965, strikes a familiar chord to the founding of the Union in 1890. Now again, two non-competitive business organizations have openly discussed their problems and ambitions and have decided they can function better together than separately.

Important today is the fact that approximately 16,000 experienced and highly skilled oil people will combine their energies and loyalties into a union of effort. Properly imbued with the pioneering *Spirit of 76*, they have the opportunity of moving the Company through another great period of service and growth—its *finest*.

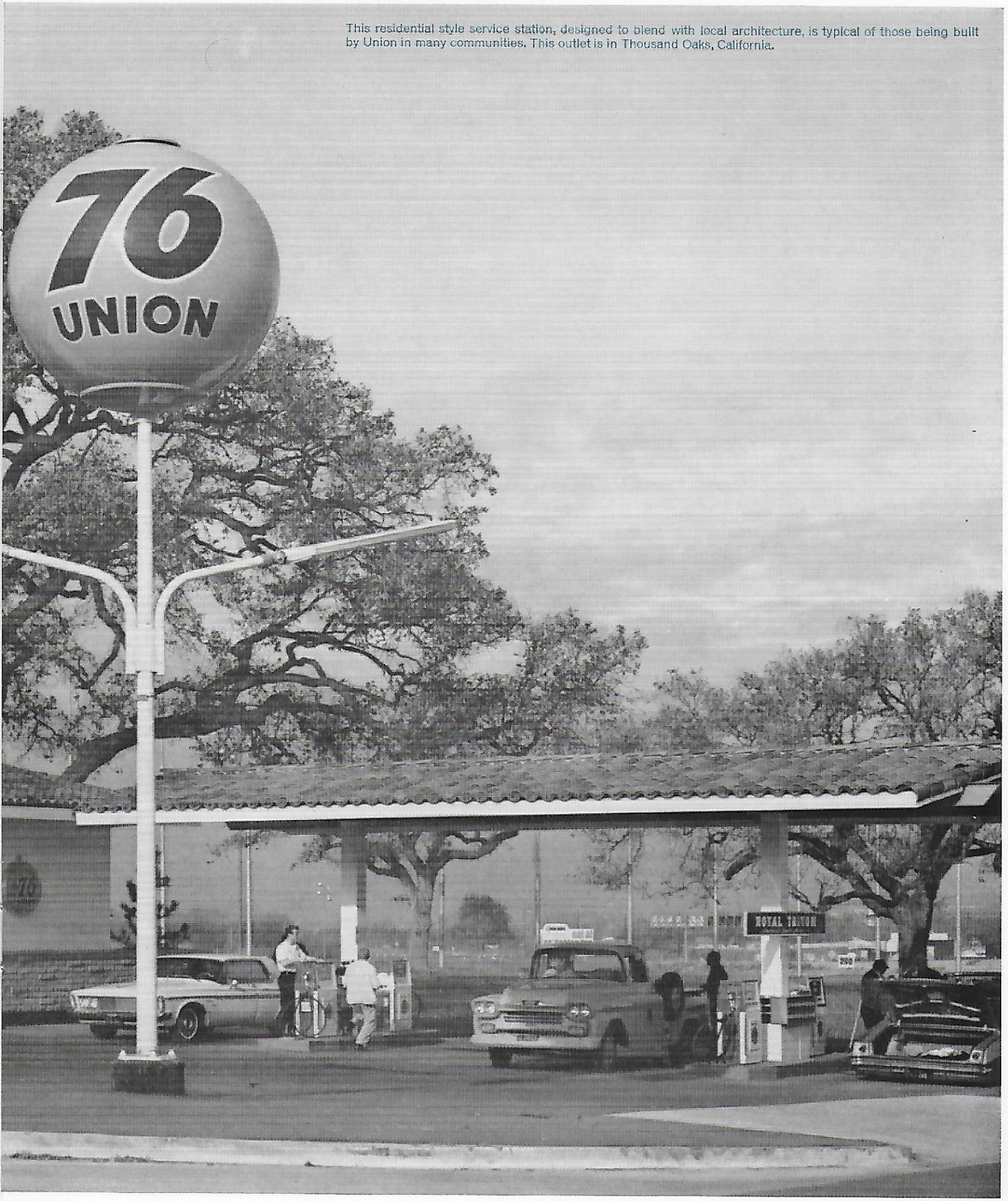
Where shall we drill next?

◀ The most prodigious Union Oil well of all was Lake View No. 1 which came in on March 5, 1910. It was estimated that 125,000 barrels of petroleum were spewed out in the first 24 hours. After 18 months of stupendous production, Lake View No. 1 ceased flowing as abruptly as it was born. Official estimates of the well's yield were 9,000,000 barrels of crude.

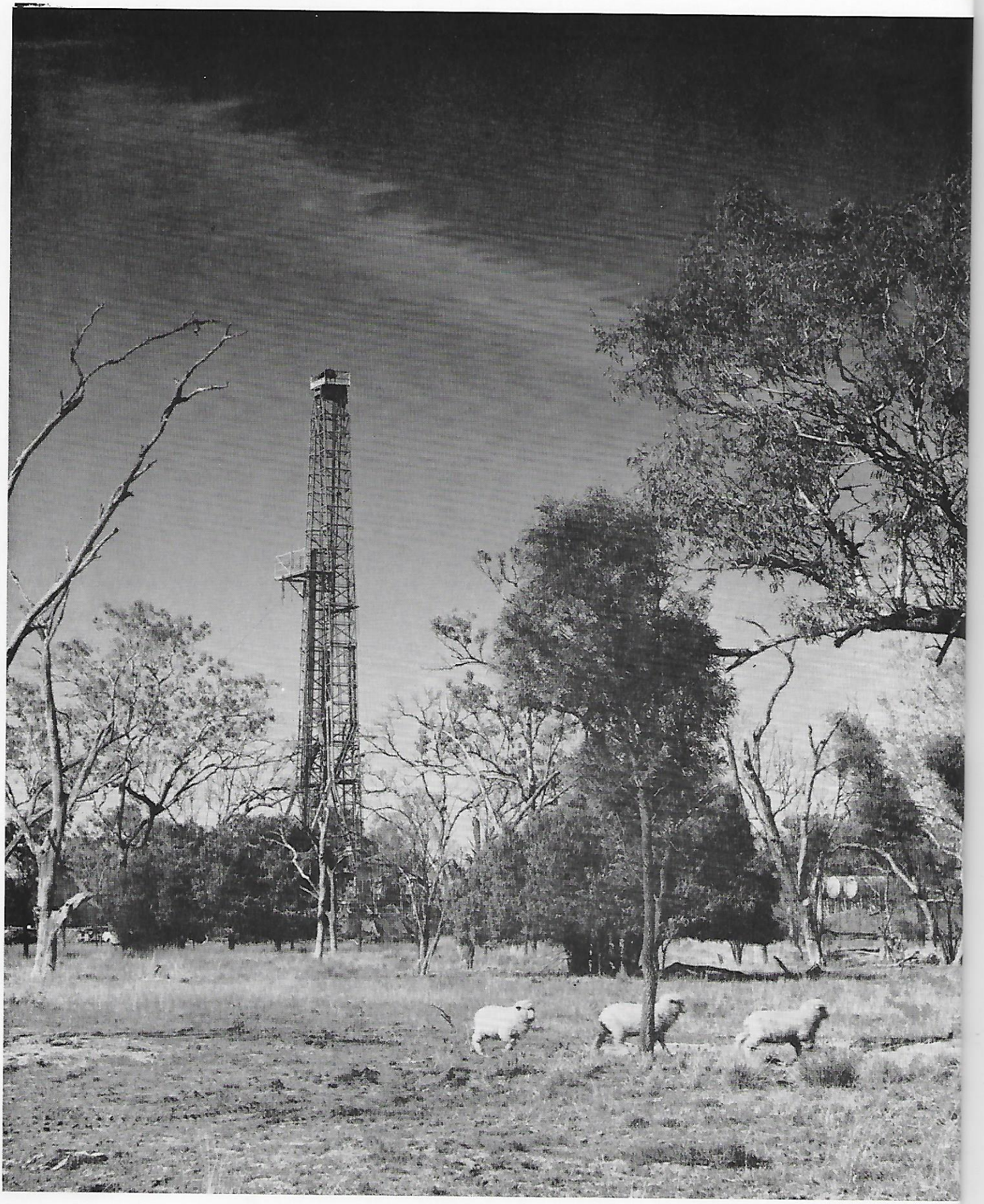
▼ Union's sales operation in Tacoma, Washington, looked like this in 1922 with an early, box-like service station at left and bulk plant at right. Early model pickups and tank-trucks of the Company are shown lined up.



LET'S LOOK AT UNION OIL



This residential style service station, designed to blend with local architecture, is typical of those being built by Union in many communities. This outlet is in Thousand Oaks, California.



WE ARE INVITING you on a word-and-picture tour of Union Oil Company, as it was just before the merger on July 16. We will start out on an auto tour of Los Angeles, then switch to a jet airliner to take you around the country on a survey of the "76 Company."

Our car arrives in Los Angeles on Sunday, so we'll bypass Union Oil Center for now and take a drive along Pico Boulevard, which was named after two early California oil men. The drive will be a candid introduction to the Company.

Automated Production Office

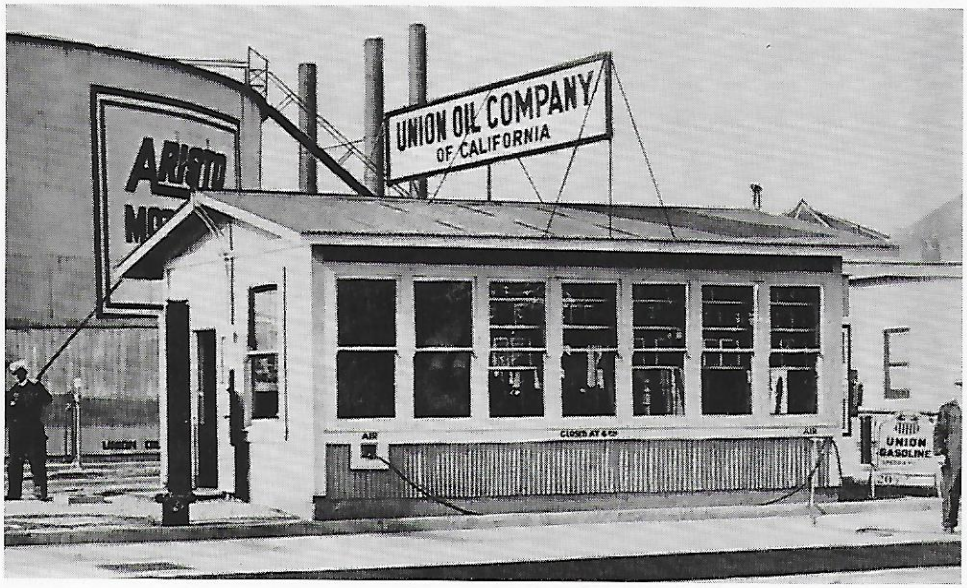
At 4848 West Pico, adjacent to a large metropolitan shopping center that has a Sears store, supermarkets, dry cleaners, and specialty shops, stands a one-story stucco building that looks for all the world like the offices of an attorney or real estate broker. Behind the concrete block walls, painted and neatly landscaped with trees, shrubs, grass, and flowers, are the workings of an oil field, part of the Las Cienegas Field.

Inside the building is an automated production office; outside in the courtyard are a score of oil wells with submerged Christmas trees. The drilling derrick was removed some time ago, but during its brief visit the tower was blanketed with a green, sound-proofing material. The wells were slanted, drilled with a turbo-drill under 40 acres of downtown homes, offices, shops, schools, parks, and service stations. A casual visitor permitted into the courtyard might mistake the pastel-trimmed pipelines for the equipment in a dry cleaning establishment.

Few of the landowners in the surrounding 40 acres—men and women who collect monthly royalties from Las Cienegas production—know the oil site exists. Sound-proofed drilling rigs, submerged Christmas trees, and landscaped production sites that hide the unsightliness of an oil field are typical in Los Angeles. For a long time the Las Cienegas Field was known as the only oil field with a downtown street address.

◀ Discovery well, Alton No. 1, found Union's second oil field in Queensland, Australia, in mid-1964. The Company made the first commercial discovery of oil at the Moonie Field in December, 1961.

▼ Union Oil Company records show the station shown here to be the first to bear the Union Oil name. It was opened in 1913 at Sixth and Mateo Streets in downtown Los Angeles.



Sign of the 76

Let's drive a block farther on Pico Boulevard; soon you will see the orange and blue Sign of the 76—a Union Oil station where the service is so prompt and efficient that the dealer is known as a Minute Man. If you, like many of the royalty owners in the Las Cienegas area, call frequently at the Sign of the 76, you may happen to see a pretty girl in blue and white uniform drive up to check the housekeeping at the station. She is a Sparkle Girl, and her job of making sure Union Oil service stations are in neat condition is one of the many pleasant surprises you will find in dealing at the Sign of the 76. The Sparkle Girl's presence is evidence that Union Oil believes cleanliness is next to godliness.

While the dealer is filling your tank with Royal 76 gasoline (widely advertised in the West for its "chemical tuneup"), you can step outside to survey the station. First off, there's a real sales room, laden with Minute Man tires, 76 batteries, 76 air filters, 76 coolant, 76 brake linings, and other branded accessories and repair products. The floors of the room are tiled and the rest rooms, as you might guess, are the cleanest in the West. You enter the rest rooms from inside the sales room.

Good Housekeeping

Step outside for a tour around. The dealer has his own office; there are no greasy rags or cigar butts marring the appearance of the sales room. Station canopies are detached, and they boast pitched roofs with shingles or shakes. Step up close: Aluminum sash storefronts add distinction, as does the stone planter with a pine tree—an extra touch of elegance.

If you're not familiar with Union Oil's residential service station, you may have to look around for the entrance to the lube room. It is to be found at the side (or back) of the station, an architectural feature that shows off the natural stone and

▲ This covered drilling rig is working in the Las Cienegas oil field, which covers a large section in metropolitan Los Angeles. The field was discovered by Union Oil several years ago.

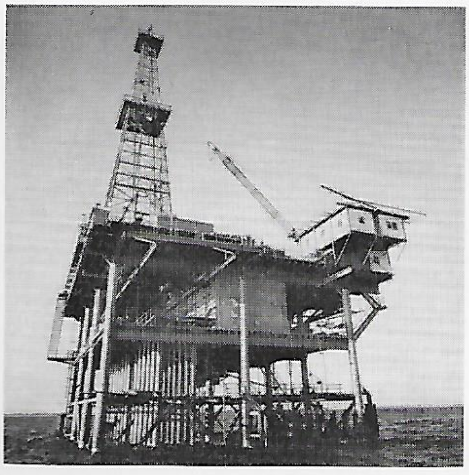
tinted glass walls in front to best advantage. The station is white, trimmed in burnt umber, buff, and orange; it's the kind of station that movie stars like to call at.

The products on sale also are a pleasure to contemplate. Consider, for instance, the Union Oil line of Minute Man tires. On the premium grade Minute Man III and IV tires, the guarantees are the finest in the industry. If the tire fails within 10,000 miles or one year (whichever is first), you get a new one free! (An insurance company buys the new tire.) After 10,000 miles or one year, the tires are covered for workmanship, materials, and road hazards as long as any tread remains up to 36 months (30 for Minute Man III). Compare that with any warranty you have ever seen!

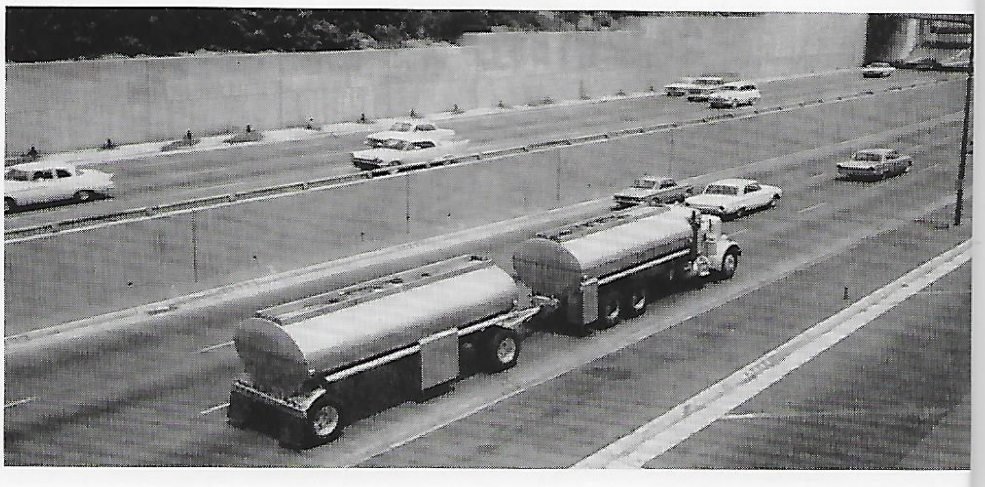
Royal 76 and Regular 76

The Royal 76 and Regular 76 gasolines dispensed from the orange and blue trim-

▼ "Platform Eva" off Huntington Beach, California, was the site of one of the Company's recent discoveries. The platform can accommodate 30 wells.



▼ Union Oil's 300-horsepower tank-trucks pull light-weight aluminum tank trailers. Carrying up to 9,000 gallons, these efficiently engineered rigs have reduced distribution costs.



med pumps are of the finest quality too. If you come from a refining background, you will appreciate the fact the gasolines are blended in automatic, in-line blenders (doing away with batch blending), and they are manufactured in a refinery that boasts immaculate housekeeping, pastel-colored storage tanks, and such up-to-date equipment as Unifiners and Unicrackers—both Union developed refining processes.

A word about each while your Minute Man dealer checks the oil. The Unifining process (catalytic desulfurization) was designed to remove sulfur and nitrogen impurities from refinery feed stocks. Process engineers tell us this is vital in refining systems that employ a noble metal as a catalyst. For example, sulfur and nitrogen can quickly "poison" the platinum in a Platformer—a reformer using a platinum catalyst. Installing a Unifiner ahead of the Platformer, however, greatly lengthens the life of the valuable catalyst and gives you a cleaner product.

Removing Impurities From Diesel

Another application of the Unifining process involves removing impurities from diesel fuel. Eliminating sulfur results in a diesel fuel that is clear and doesn't smoke, a diesel fuel that Union Oil markets as its "amazing blonde" Unifuel. Evidence that the Unifiner is a workhorse in modern refineries comes from the fact that more than 200 Union Oil developed Unifiners are licensed for operation throughout the world.

The Unicracker (hydrocracker) also promises to become a workhorse. This process, developed at Union Research Center in conjunction with Esso Research and Engineering, makes gasoline (and some butane) from gas-oil without leaving fuel oil as a by-product. By upgrading heavy, low-value gas oils into light, high-value gasoline, the Unicracker practically eliminates the old economic problem of heavy residual ends. This is important on the Pacific Coast where the fuel oil market is shrinking and the gasoline market is mushrooming.

Meanwhile Back at the Station

Back at the Union Oil station in Pico, our Minute Man dealer says you need a quart of Super-Royal Triton motor oil (it was a long drive from the Midwest to Southern California). Watching him pour purple oil into your car's engine helps recall that day in 1934 when Triton was introduced — another research breakthrough. Prior to that time most people believed Eastern, or Pennsylvania, motor oils were superior; Union's research scientists refused to believe this talk.

At that time, lube oil was obtained by distillation—the desirable oil stocks being evaporated, leaving behind asphalt and residue. Wax was removed by chilling and pressing through clay filters.

Union's scientists hit on the idea of using a selective solvent (in this case propane) to remove asphalt and wax. A second solvent removed other undesirable portions of the raw oil stock. The result was a superior motor oil that was years ahead of its time. One of Triton's obvious attributes was the fact it left no hard, flinty deposits on pistons—the soft carbon would flake off and be carried out in the exhaust.

Constant improvements in Triton led to today's premium motor oil, Royal Triton. A chemical additive gives Royal Triton its distinctive purple color. During World War II, the U.S. Army used a military version of Royal Triton to lubricate tanks and trucks—and GI's promptly labeled the oil "grape juice." This introduction helped popularize Royal Triton. Today, Royal Triton, Super-Royal Triton, and their industrial counterparts are sold around the world.

Services Worth Talking About

The services, as well as the products, at a Union station are worth talking about. The dealer on Pico is one of our elite Minutemen. A sign on the wall of his station, and three emblems on the sleeve of his uniform indicate the dealer is authorized to perform Certified Tune-Ups, Certified Brake Repairs, and Certified Carburetor Repairs. Moreover, this dealer like many other Union Oilers, offers 76 Certified Car Condition Service, a 35-step check of your car's mechanical condition along with the lube job: The cost is only $2.50 and the value received is 10 times that much.

Your tank is full, the oil is in, your windshield is polished, and your tires checked. Chances are you will pay the dealer with a Union Oil credit card, for more than half the retail gasoline business in the West is done by credit card.

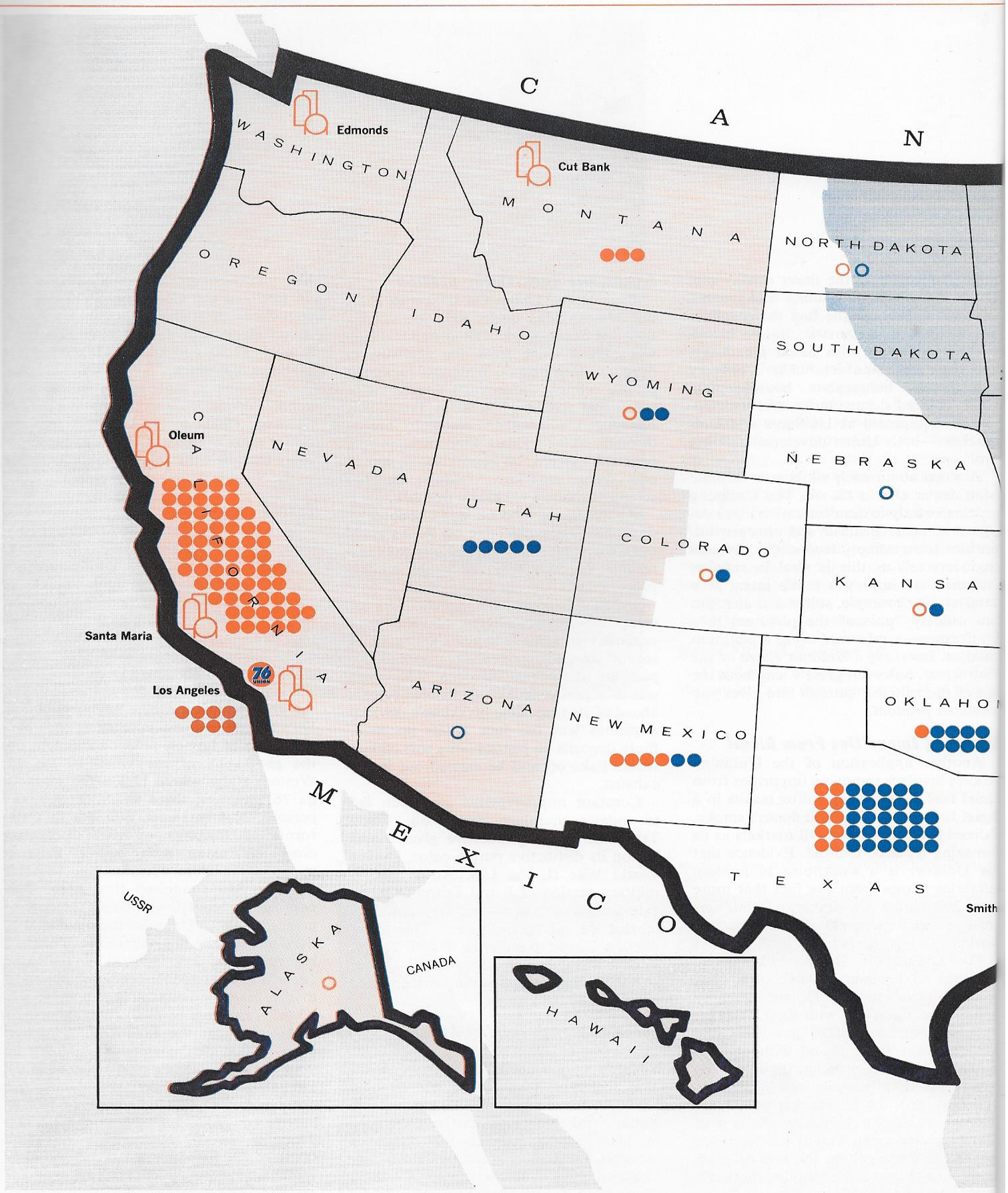
Torrey Pipeline

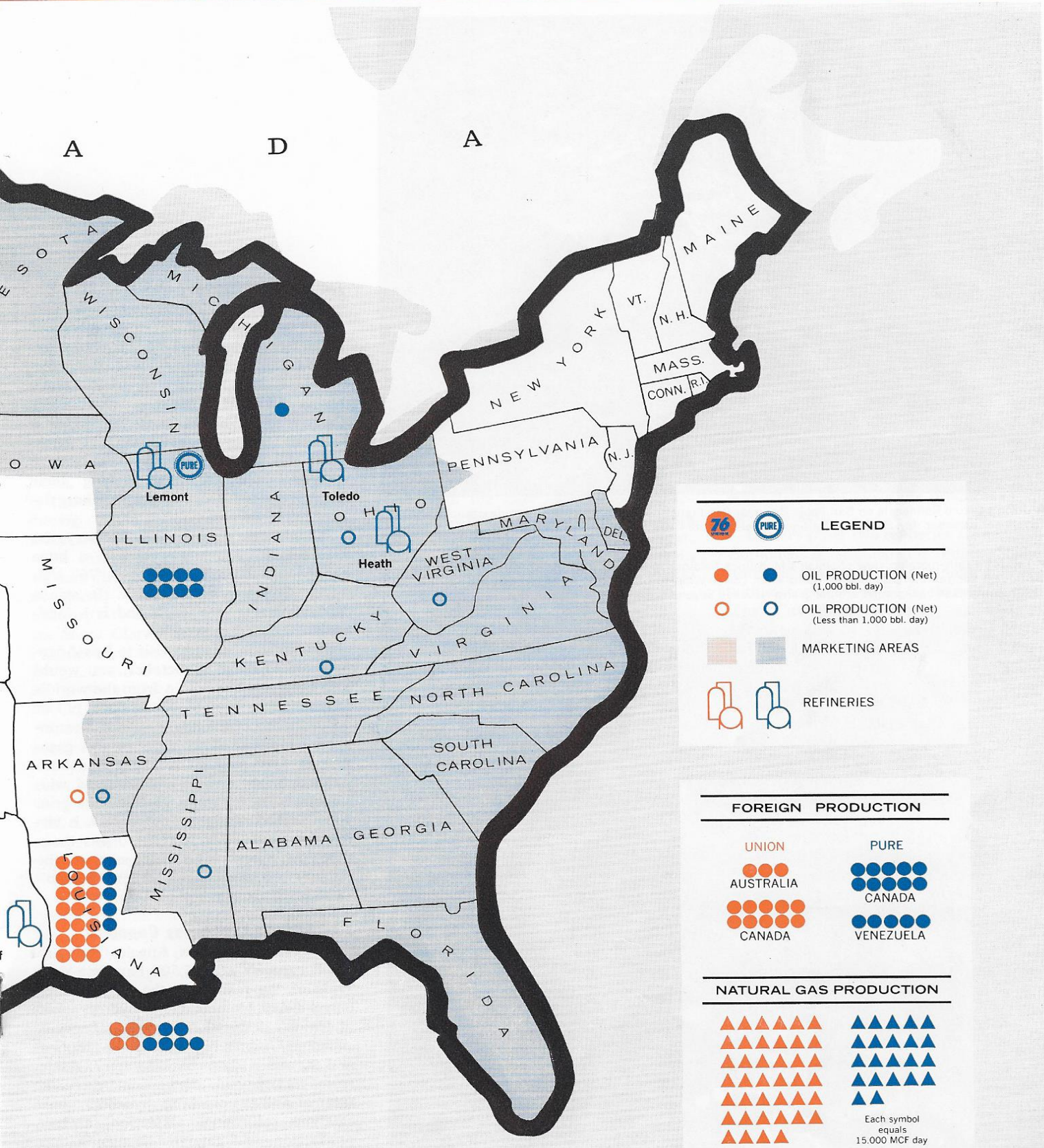
As you drive down Pico Boulevard toward Santa Monica and the Pacific Ocean, you will cross Union's Torrey pipeline. It's underground and if you don't know it is there you'd surely miss it. This pipeline transports crude oil from the mountain top fields northwest of Los Angeles to Union's Los Angeles Refinery at Wilmington in the San Pedro harbor area.

Turn south on one of the freeways for the drive to Los Angeles Refinery, Union Oil's biggest. As you drive along for mile-after-mile of homes, reflect a moment on the geography of the West. In the 12 Western states where Union Oil markets its 76 products, there reside 29,000,000 persons. Nearly 18,000,000 live in California; 10,000,000 of these potential customers make their homes in two metropolitan areas, Greater Los Angeles, and the San Francisco Bay Area. The population breakdown alone suggests a great deal about Union's refining, distribution, and marketing operations. The two big refineries, Los Angeles and Oleum (near San Francisco), are situated handy to the major markets. (Fortunately, the oil fields are close by too.)

As you near the Los Angeles harbor area, you might be fortunate enough in your timing to see one of Union's recently jumboized supertankers easing into the outer harbor wharf with a load of 870,000 barrels of crude oil from the Mideast. There are two of these mammoth, 118,-000-ton vessels making the 24,500-mile round trip run on a carefully worked out 60-day schedule.

Union Oil's producing ar

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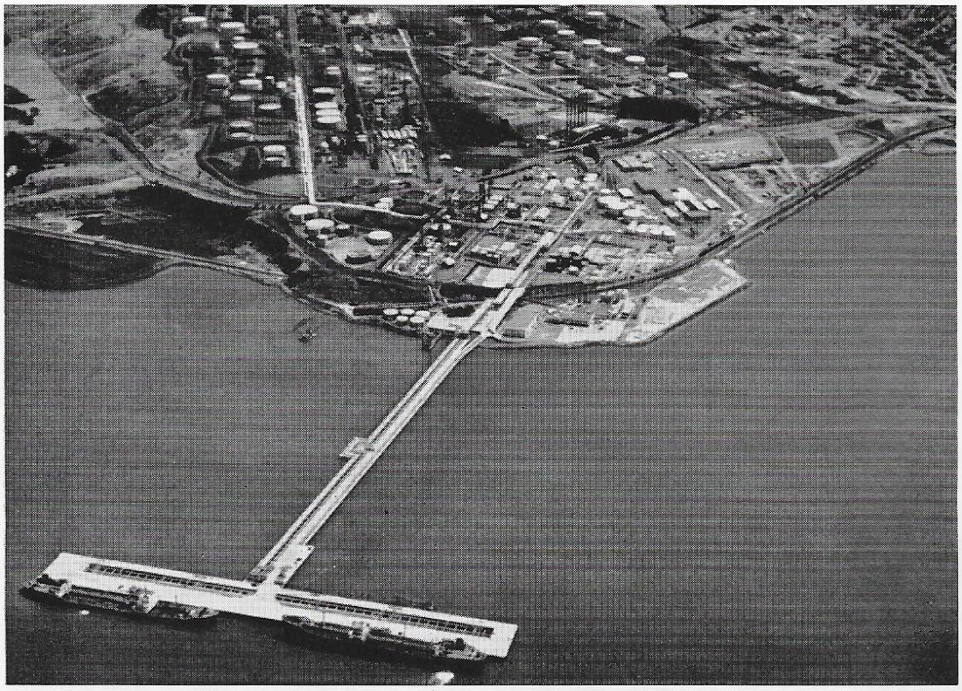
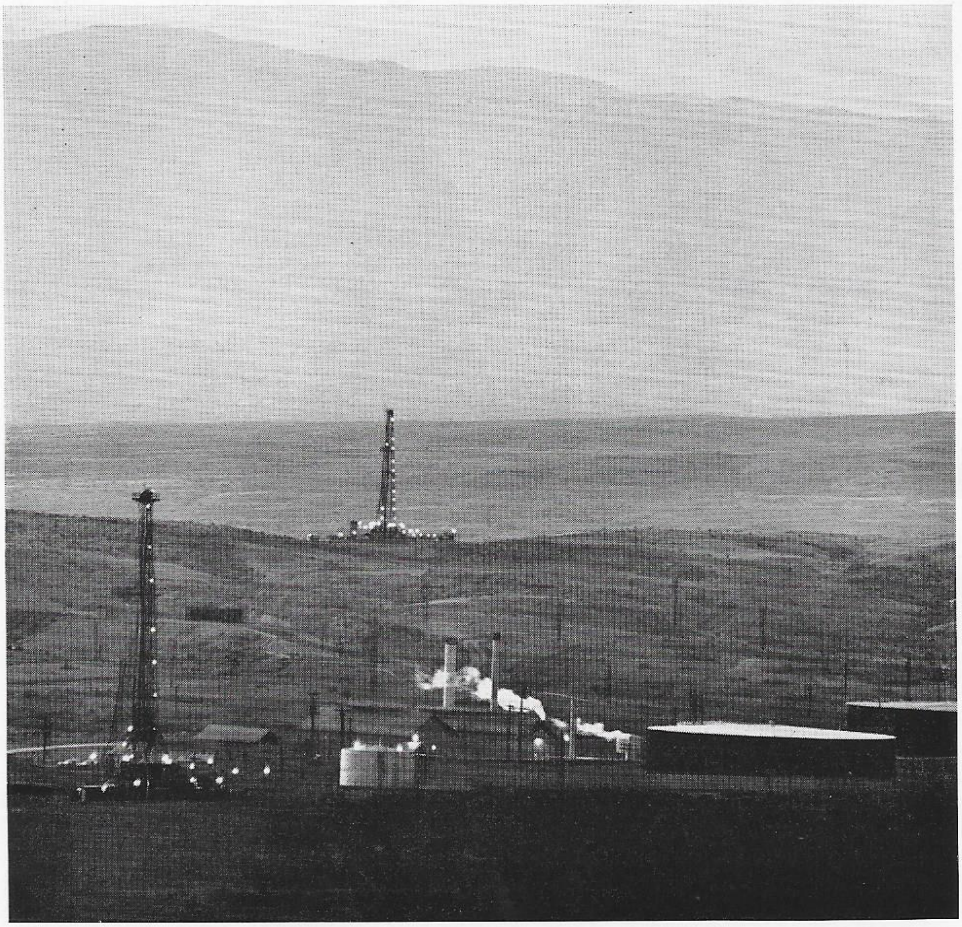
NATURAL GAS PRODUCTION
Each symbol equals 15,000 MCF day



▲ Union's Oleum Refinery is on San Pablo Bay near San Francisco. The refinery has a crude capacity of 48,000 barrels per calendar day. Besides a full line of fuels, Oleum turns out lube oil stocks, greases, coke, waxes.

▼ This is an early-morning view of Union's McKittrick holdings in the San Joaquin Valley. McKittrick became the hottest thing in the California oil world when Lowell-Wible 47X-8 came in for 6,000 barrels a day this year. High mountains in background are the Sierra Nevadas beyond Bakersfield.



Three Supertankers Built

Here is the background on these giant tankers. In 1958, three supertankers of 67,000 tons each were built: The *Sansinena, Torrey Canyon,* and *Lake Palourde*. Each is named after a well-known Union oil field. Last year the *Torrey Canyon* and *Lake Palourde* were chosen for jumboizing to 118,000 tons each. Early this year, the enlarged vessels were delivered and are now making their regularly scheduled voyages to Kharg Island in the Persian Gulf.

As you near Los Angeles Refinery, the first feature you will notice is a huge orange and blue, neon-lighted "76" sign —the Company's trademark. It stands more than 200 feet high and is a landmark in south Los Angeles.

If your word-picture visit to Los Angeles were to come in October, you would also be greeted by a grin from the world's largest jack-o'-lantern (back cover). For 15 years one of the 80,000-barrel Hortonsphere tanks used to store natural gasoline at Los Angeles Refinery has been painted bright orange and trimmed with huge eyes, nose, and a 73-foot-wide grin. Floodlighted at night, Smilin' Jack is visible from 10 miles away. It draws thousands of parents and youngsters to the refinery on Halloween where jack-o'-lantern balloons are passed out.

106,500-Barrel-a-Day Capacity

Inside, we find Los Angeles Refinery has a capacity of 106,500 barrels a day. Pride of the refinery is the new 16,500-barrel-a-day Unicracker, a hydrocracker of Union's design. LAR, as the refinery is called, is Union's big West Coast gasoline maker, and it dates back to 1917. Aside from straight-run distillation, there is thermal and cat cracking, hydrocracking, catalytic reforming, alkylation, asphalt production, and catalytic desulfurization (Unifining).

If there were enough time for a complete tour of the Los Angeles Basin, you could see a dozen Union oil fields with romantic pasts, but our schedule is tight. Briefly, some of the better known fields

where we have production are Dominguez, Rosecrans, Santa Fe Springs, East Coyote, Richfield, Sansinena, Montebello, Las Cienegas, Yorba Linda, and Brea-Olinda. Soon to come into prominence will be the East Wilmington Field, just a short distance from Los Angeles Refinery. Union has approximately a 15% interest in the production from this billion-barrel field. Only 15 or so miles south, offshore from Huntington Beach, is Union's Platform Eva, which is producing crude oil from the offshore Huntington Beach Field.

To continue our visit, let's board a jet airliner (powered with 76 Turbine Fuel, of course), for we need to cover a lot of territory. We might choose first to fly over the Santa Clara Valley northwest of Los Angeles for a look at Torrey Canyon, Oak Ridge, Broad Oaks, South Tapo, Canada de la Brea, Bardsdale, Del Valle, Tar Creek, South Sespe, South Mountain, Adams Canyon, Slocum, and several smaller fields.

Flying northward along the Pacific coast to the Santa Maria area, our pilot would fly over Orcutt, Santa Maria, Lompoc, Casmalia, Cat Canyon, and Guadelupe Fields.

A Refinery's Refinery

Before flying eastward to the San Joaquin Valley, let's look briefly at the Santa Maria Refinery. From the air, it is surrounded by sand dunes, for it is on the beach at Arroyo Grande (meaning big dry ditch), which is near the town of Santa Maria. A branch of the San Joaquin Valley pipeline (described later) feeds Santa Maria a heavy, tar-like crude for coking and asphalt manufacture. Santa Maria Refinery, with a capacity of 24,000 barrels a day, is a refinery's refinery: No consumer products are produced. After coking and asphalt production, gas oils are shipped to Oleum and Los Angeles for cracking.

Turning our jetliner eastward across the coastal mountain range to the San Joaquin Valley, our pilot tells us this area produces about 25% of America's table foods. From beneath this irrigated horn of plenty comes much of California's crude oil. Fields that Union Oilers would find most interesting include Kern, Mt. Poso, Mountain View, Edison, Maricopa, Sunset, Taft, Midway, the Belgian Anticline, McKittrick, Rio Bravo, Cymric, Middle Water, North Belridge, Tar Canyon, Kettleman Hills, Guijarral Hills, and Coalinga Nose.

Of particular interest in recent months have been the new discoveries at McKittrick, a field that has been producing for nearly 100 years. Earlier this year, Union found new 34-gravity crude from wells that produced as much as 6,400 barrels a day.

Oleum Refinery

Tracing the length of the San Joaquin Valley from Bakersfield north is a crude-oil pipeline leading to Union's Oleum Refinery on San Pablo Bay in the San Francisco-Oakland Bay Area. The refinery was built in 1895; like Los Angeles Refinery it has undergone several major renovations to keep it modern. Today Oleum has a capacity of 48,000 barrels a day and is the home of Triton motor oils, Unoba grease, Aristowax, and Unowax (wax-polymer) blends.

▲ A Sparkle Girl—one of the corps of 16 attractive young ladies which each summer travels through Union Oil Company's Western marketing area giving service station dealers the woman's-eye-view of their housekeeping. The Corps is in its seventh year.

From Oleum's wharf you may see a coastal tanker, the *Lompoc* or *Santa Maria,* steaming out carrying gasoline, oil, and grease to Portland, Seattle, Anchorage, or Honolulu. From these points, pipelines, barges, railway cars, and tank-trucks will move the products to inland markets.

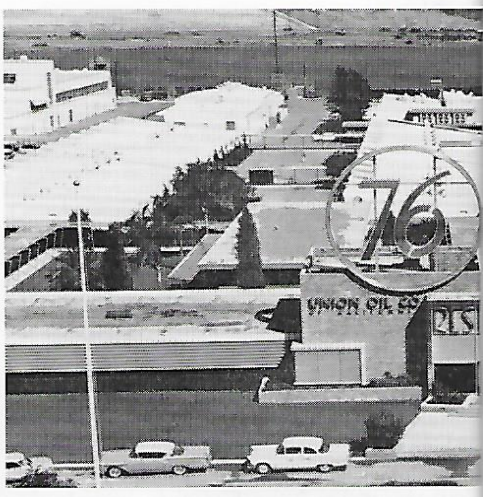
Union's other two refineries are smaller: Edmonds is situated on Puget Sound north of Seattle; it is an asphalt refinery with a capacity of 4,000 barrels a day. The Cut Bank Refinery, situated in Montana east of Glacier National Park, has a 3,800-barrel-a-day capacity and produces gasoline, heating oil, diesel fuels.

A Hedge for the Future

From Montana, let's take a long flight south. We will pass over several oil leases in Montana, Wyoming, and Colorado where the pumps are labeled with a 76. Near Grand Junction, Colorado, you will see huge mountains of oil shale—the petroleum industry's hedge for the future. Union Oil has large holdings of oil shale in Western Colorado, with recoverable reserves estimated in the range of three to five billion barrels. Moreover, the Company has developed the technology for oil shale retorting and refining.

Passing southward into New Mexico, we will fly over the South Caprock Queen Unit, a waterflood project operated by Union, and see other familiar Union pumps at places like Anderson Ranch. Just across the border in West Texas, we will encounter production at South Cowden, the Spraberry Trend, and about 50 other leases.

Crossing into Louisiana, we find a big "76" oil patch. To get you on familiar territory let's fly offshore to Ship Shoal Block 208, a salt dome now producing about 9,000 barrels a day. Union holds a 51⅔% interest in Block 208, which, with Pure's 35%, gives us an 86⅔% interest



▲ Union's Research Center is near Brea, California, about 30 miles east of Los Angeles. Scientists working in this $10,000,000 center have a long list of

in this field. Union also has crude oil production at Caillou Island, Main Pass, Lake Hatch, East Lake Palourde, Vinton, Big Bayou Pigeon, and East White Lake, our initial discovery in 1939.

A Major Natural Gas Producer

The Company is also a major natural gas producer in the Gulf area, with gas fields at offshore Vermilion, West White Lake, North and South Freshwater Bayou, Tigre Lagoon, South Tigre Lagoon, Hollywood, Houma, Bay Junop, Breton Sound, and Pagie Lake.

Now let's wing briefly back to Los Angeles where you can pick up your car for the return to the Midwest. A short drive to the eastern suburbs of Los Angeles will put you in Brea, which, incidentally, was the old Spanish word for petroleum (asphalt). At Brea you will find the main plant of Collier Carbon Chemical Company, a wholly owned subsidiary engaged in manufacture and sale of petrochemicals, petroleum coke, and fertilizer. Collier operates six other plants in the United States and markets its products throughout the United States, Canada, Mexico, Europe, and Japan.

Brea is oil country; the town is circled by five Union Oil fields: Brea-Olinda, Yorba Linda, Richfield, East Coyote, and Sansinena. On the eastern outskirts of Brea is Union Research Center, a $10,000,000 campus-like complex of buildings where scientists and technicians are at work developing new products and processes for the future.

Union Oil Center

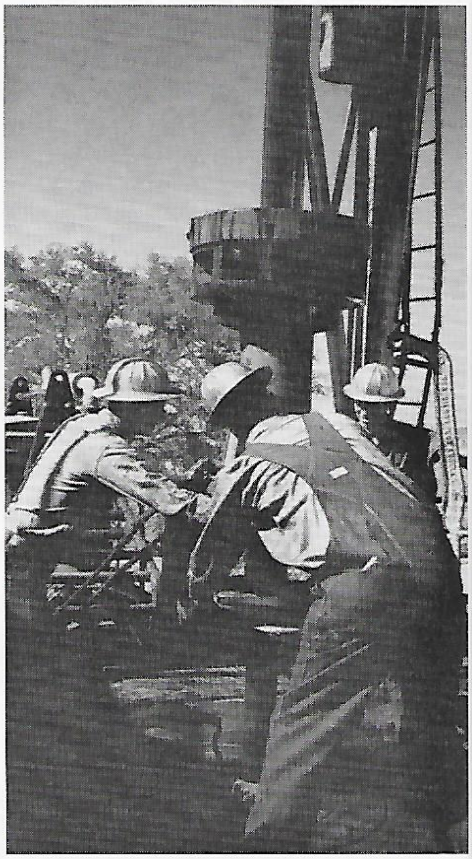
We're back in downtown Los Angeles, and suddenly it's Monday morning. Near the point where the major Los Angeles freeways intersect stands the 12-story Union Oil Center, a four-building complex covering a square city block. A brief tour of the building will show that Union geologists are busy exploring in Alaska, the Trucial Coast, the Gulf of Iran, Australia (Union found Australia's first commercial oil deposits), Thailand, in West Africa, and elsewhere.

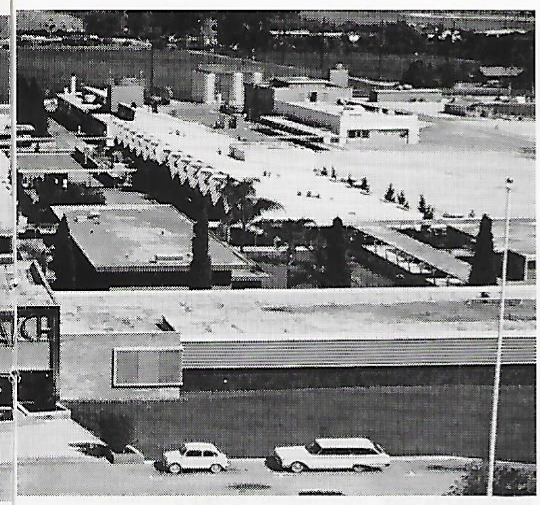
Elsewhere in the building, secretaries are busy typing up letters to Unoco Limited, Union's overseas marketing subsidiary headquartered in Hong Kong, and to Maruzen Oil Company of Japan, a 33% owned affiliate, a major refiner and marketer.

Before bidding farewell on this all-too-brief tour of Union Oil Company, we might end our visit with lunch in the Company cafeteria. As a special guest, you will dine in—you guessed it—the Seventy-Six Room.

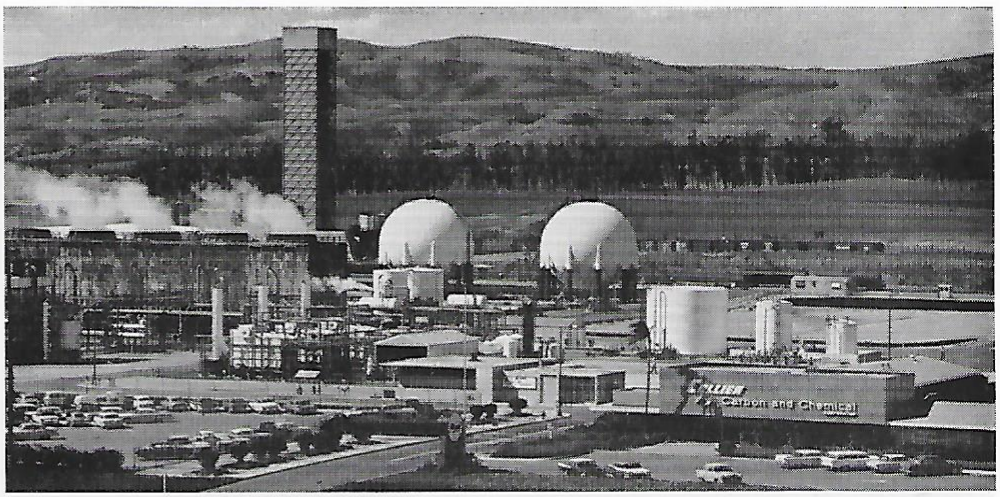
The Company's headquarters is in Union Oil ▶ Center, a four-building complex beside the Harbor Freeway in downtown Los Angeles.

▼ Crew runs drill pipe into the hole at a well in the new Santa Susana Field in California.





credits. For example, 80% of the cars on the road today use oil additives invented by Union Oil scientists.



▲ Union's petrochemical operations are conducted by Collier Carbon and Chemical Corporation, a wholly owned subsidiary. Shown is Collier's Brea Plant, 30 miles east of downtown Los Angeles. The firm manufactures chemical fertilizers, industrial chemicals, and carbons. It markets these products in the United States, Canada, Mexico, Japan, and Europe.

FRED L. HARTLEY

AT SOME POINT in the curriculum, while Fred Hartley was studying chemical engineering at the University of British Columbia, there must have been a course titled "Questions—and how to get straight answers." For, beginning with his first Union Oil job as a young college graduate, Hartley has made a reputation for insatiable curiosity, for asking questions, for getting answers—and for organizing the men with the answers into close-working task forces. Teams.

Today, as the ninth president of Union Oil Company, Fred L. Hartley believes teamwork to be the keystone for the future. "We have too much to do here not to give full emphasis to it," he says. "We must work together, always."

A bit of Mr. Hartley's philosophy is summed up in watercolor on his office wall. It is a painting of a circus clown standing on a sand dune in a barren desert. In the bleak scene, the clown is playing a violin. The painting is captioned, "Everyone has something to offer."

Physically, Hartley fits the mold of a team quarterback pretty well. By today's pro football standards, he may be a bit small; but for channelled energy he doesn't give a yard to anyone. Typically, he strides along like a back plowing through a line.

And like a quarterback, he speaks out in a loud, clear and very-much-to-the-point voice when he feels the signals should be called. A few examples:

To an industry committee studying a mutual problem: "Your presentation is great—but you're working on the symptoms instead of trying to cure the disease."

To a shareowner who questioned a three-year decline in Union's product sales: "The fact of the matter is, we're out to make sales at a profit. To sell at a price less than the total value we put into a product would, of course, be an effective way to lose money. We have eliminated sales that, in our opinion, are not profitable. . . ."

Always he reiterates the "profits and teamwork" theme. It comes out in private, in talks to Union Oil groups, and in public—as in these remarks to the Boston Security Analysts Society: "One common activity of Union's management is a never-ending, never-tiring drive to reduce

costs and improve operating performance. We have set ourselves some sizeable goals, and I'm confident our management group and employees working as a team are capable of their accomplishment."

The Move Into Marketing

The sharpest upturn in Mr. Hartley's career came when he was named a senior vice president and head of marketing in 1960. After 21 years in engineering and scientific circles, the transfer brought him into a new world.

As a chemical engineer he had an analytical mind. His wide experience in refining and research had taught him the scientific approach to decisions: To solve a problem, you first strip away emotion. This approach, he found, needed tempering. In marketing, you deal with unpredictable people as well as with facts.

Fortunately, he was able to benefit from some past experience. Mr. Hartley had been the Research Department's salesman for years. He had moved to the department from refining in 1953 to take over the newly formed Commercial Development Division. In this spot, his job was sell Union's research developments to others. Number one on his list was a process called Unifining, a unique method of producing hydrogen-purified products. By the time he left the Research Department as its vice president, he and his associates, along with the Universal Oil Products Company, had sold the process so successfully that Unifiners are now being used in more than 200 refineries throughout the free world.

With this background he learned about marketing fast. Today one staff executive describes Mr. Hartley this way: "He is a firm believer in the philosophy that the customer is the focal point around which this company must develop and grow."

How strong his preoccupation with the customer—with people—has become is illustrated by a few of his comments from a recent press conference. In response to reporters' questions, he said:

"The industry and Union Oil Company have never enjoyed the volume of business we should relative to the number of our customers. We have an excellent opportunity to influence those customers to buy from us.

"For example: In addition to petroleum products, we have to sell merchandise for our business to be profitable to us and our dealers . . . and to properly serve our customers. We have to recognize—are recognizing in Union Oil—that our customers' automobiles have changed their characteristics. So we have changed our entire service procedure to meet the customers' needs.

"We want to secure only corners for service stations, but we buy more than the corner with, as our objective, having other businesses established on the remaining property. People like it; the two businesses grow because of each other.

"We are exploring every avenue that will give us a chance to make better profits by serving our customers better—we're looking at customer needs from all angles."

His Background

Mr. Hartley was born on January 16, 1917, in Vancouver, British Columbia, attended the University of British Columbia and was graduated with honors in May of 1939 as a bachelor of applied science in chemical engineering.

He arrived at Oleum Refinery on May 17, 1939, with $25 in his pocket. He worked in the labor gang at Oleum that summer, then was promoted to junior research engineer at Los Angeles Refinery. In 1942 he returned to Oleum as refinery process supervisor, and later that year was named manufacturing process supervisor at the home office; he stayed in that post for nearly eight years. During that time he was involved in developing new technologies for the manufacture of toluene, for use in wartime explosives, and aviation fuel for the armed services.

In 1950 Mr. Hartley became general superintendent of operations at Los Angeles Refinery, a position he held until 1953 when he was chosen to head the newly formed Commercial Development Division of the Research Department. There, as we said, he became Union's world-ranging salesman for processes developed at the Research Center.

His strong belief in innovation and in the need for a constant search for new techniques—reflected most recently in Union's hard-driving marketing policies—became apparent during his tenure in research.

Authority on Oil Shale

He—and Union Oil Research—are recognized among the country's foremost authorities on oil shale, one of our aces-in-the-hole for the future. Late in 1964 Union Oil put on stream its first Unicracker, an advanced refining process that has had a major effect on the Company's operations and profits. Unicracking was initiated and started on its way toward commercial development while Mr. Hartley headed the research team and directed work on the process.

At the Research Center he received an introduction to the exploration and production phase of the Company's operations. A major portion of our research effort is devoted to increasing our supply of raw material—from devising new drilling techniques to improving methods of completing a hole so it will be a better oil or gas well. He put in his post-graduate work in exploration and production as a member of the Board of Directors and of its Executive Committee.

In 1960, Mr. Hartley was elected senior vice president in charge of Marketing. Two years later, when the company reorganized into major profit centers, he headed the new Refining and Marketing Division. In November, 1963, he was elected Executive Vice President—one more step in one of the most comprehensive, in-depth management experiences any Union Oil executive has ever undergone.

Mr. Hartley's election to the Presidency of Union Oil came in August, 1964. He was made Chief Executive Officer in December.

Relaxation for Mr. Hartley means—whenever possible—vacations with the family: His wife, Peggy, and their two children, Margaret Ann, 8, and Fred Jr., 6. (The Hartleys live on Palos Verdes Peninsula which is located south of Los Angeles.)

Occasionally, he squeezes in a hunting trip; a session at the piano, usually when there's a group of singers around; a game of tennis; and, "as time permits—which works out to about once every three years," a round of golf.

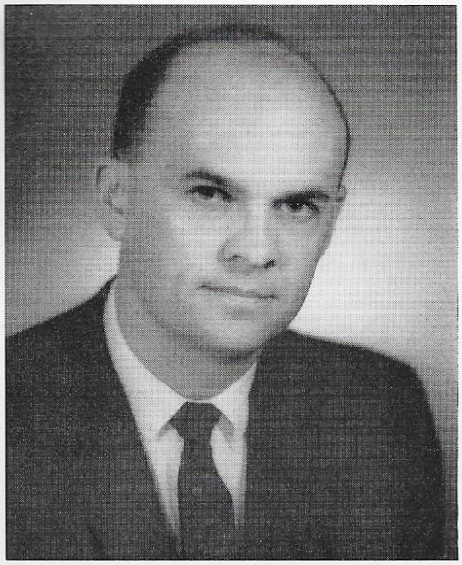
MEET SOME OF UNION'S OFFICERS

CHARLES F. PARKER, Senior Vice President, a Director, and member of the Executive Committee, joined Union Oil Company in 1932 as a junior inspector at Union's Los Angeles Refinery. He was promoted to analytical chemist at the refinery in 1937 and research chemist three years later. He became an engineer for Economics and Planning in the head office in 1941 and served in that capacity till 1947 when he was appointed senior economist for Economics and Planning. In following years he was appointed senior economist in the Economics Division, Comptroller's; supervisor, Economics Division, Comptroller's; assistant comptroller in 1952; assistant treasurer in 1953; director of Economics and Planning three years later; Vice President for Economics and Planning in 1957; Vice President for Economics, Planning, and Budget in 1960; Vice President for Finance in 1962; and was promoted to his present position in January, 1963. Born January 30, 1912, in Clovis, California, he was graduated with a B. A. degree in chemistry from the University of Southern California in 1932. In 1935 he received an M. A. degree in chemical engineering. He received training in the Advanced Management Program at Harvard Business School in 1954. He is a director of Pima Mining Company and Moreland Investment Company and a member of the American Petroleum Institute and the Los Angeles, California, Chamber of Commerce. Mr. Parker resides with his wife, Alyce, at 2120 Glenview Terrace in Altadena, California. The Parkers have a son, 21.

JOHN W. TOWLER, Senior Vice President for Refining and Marketing and a Director of the Company, joined Union Oil as a laborer at the Company's Los Angeles Refinery in 1933 after graduation from California Institute of Technology with a B. S. degree in mechanical engineering and two years of service in the Air Force. During the next eight years he held such positions at that refinery as assistant labor foreman, draftsman, assistant engineer, mechanics assistant, and superintendent of maintenance. From 1941 till 1945 he was on military leave serving with the Air Force, attaining the rank of colonel. After the war, he returned to the Los Angeles Refinery as chief refinery engineer. In 1953 he was promoted to manager of the Company's Oleum Refinery. Three years later he was appointed manager of Los Angeles Refinery. Shortly thereafter he was promoted to director of manufacturing with headquarters in the home office. He was elected Vice President for Refining in 1960 and to his present position in November, 1963. He is a member of the American Petroleum Institute and the Chamber of Commerce of Los Angeles. Born in February, 1907, in Sturgis, South Dakota, he was graduated from the Air Force Flying Training School in 1931 and the Curtis-Wright School of Aeronautics in 1932. Mr. Towler has always had an intense interest in flying and is a member of the Air Force Reserve. Since 1962 he has participated in Boy Scout activities. Mr. Towler and his wife, Marian, have two sons, 23, and 16. The Towler family resides at 11 Portuguese Bend Road in Rolling Hills, California.

KENNETH C. VAUGHAN, Senior Vice President, Exploration and Production Division, joined Union Oil in 1933 as a well puller in the Company's Southern Division following graduation with a B. S. degree in petroleum engineering received from the University of Southern California. During subsequent years he held such positions as production superintendent in California, manager of field operations in the Pacific Coast Division, and manager of the Natural Gas and Gasoline Division. In 1959 he was named manager of operations of the Company's Gulf Division with headquarters in Houston, Texas. In January, 1962, he was elected Vice President of the Gulf Division, and was elected to his present position in December, 1963. Born June 11, 1909, in Potter Valley California, he began his career in petroleum as a member of a pipe line crew for the Standard Oil Company at Santa Fe Springs, California, during summer vacation in 1928. The following summer he worked for the same company as a rotary helper. The summer of 1930 saw him employed as a well puller for George F. Getty, Inc., at Santa Fe Springs. Mr. Vaughan has served on the Company's Employees' Benefit Plan Board of Supervisors and the Field Department Technical Trainee Committee. He holds membership in the American Petroleum Institute, Independent Petroleum Association of America, the American Institute of Mining, Metallurgical, and Petroleum Engineers, and is a director of the California Natural Gasoline Association (past president) and Western Oil and Gas Association. Mr. Vaughan resides in San Marino, California, with his wife, Gerrie. The Vaughans have two sons, 26 and 21.

How it came to be ...THE SIGN OF THE 76



CLAUDE S. BRINEGAR, Vice President of Economics and Corporate Planning for Union Oil, was appointed President of the Pure Oil Company on Oct. 11, 1965. Mr. Brinegar is also the Chairman of Pure's Finance and Planning Committee. Mr. Brinegar joined Union Oil in 1953 as an economic analyst in the home office. He was promoted to senior research economist in 1955, became supervisor in Economics and Planning in 1957 and manager of the Economics Department in 1961. A year later he was promoted to manager of Economics and Corporate Planning. He was elected Vice President this year. Born in December, 1926, in Rockport, California, he was graduated from Stanford University in 1950 with a B. A. in economics. He earned an M. S. in mathematical statistics from Stanford in 1951 and a Ph. D. in economics in 1954. From 1944 to 1947 he served in the Air Corps. From 1950 to 1953 Mr. Brinegar was a research associate at Stanford and an economic consultant for the Emporium-Capwell Corporation in San Francisco. He has taught economics and statistics in the extension divisions of California Institute of Technology, Whittier College, and UCLA. At Stanford he was elected to Phi Beta Kappa and Sigma Xi. He is a member of the American Statistical Association, the University Club of Los Angeles, and the Flintridge Riding Club. Mr. Brinegar resides with his wife, Elva, in Pasadena, California. They have two daughters, Claudia, 10, and Meredith, 8, and a son, Thomas, who is 4.

▲ The 76 at the top of the Union Oil Building in San Francisco can be seen for many miles. Situated beside the Bay Bridge, this attractive building is headquarters for Union's California North Coastal Marketing Division.

HOW DID UNION OIL COMPANY get its "76" trademark?

Late in 1931, we were coming out with what we called "the finest anti-knock, non-premium gasoline ever offered." All we lacked was an appropriate name.

Our advertising people felt that a number would have more impact, give us better identification than a name. Among the numbers they tried was 77, but the artists weren't satisfied with it from a design standpoint.

A member of the advertising committee was a young Welshman who was studying to qualify for citizenship. He was all wrapped up in American history —so he then suggested the number "76."

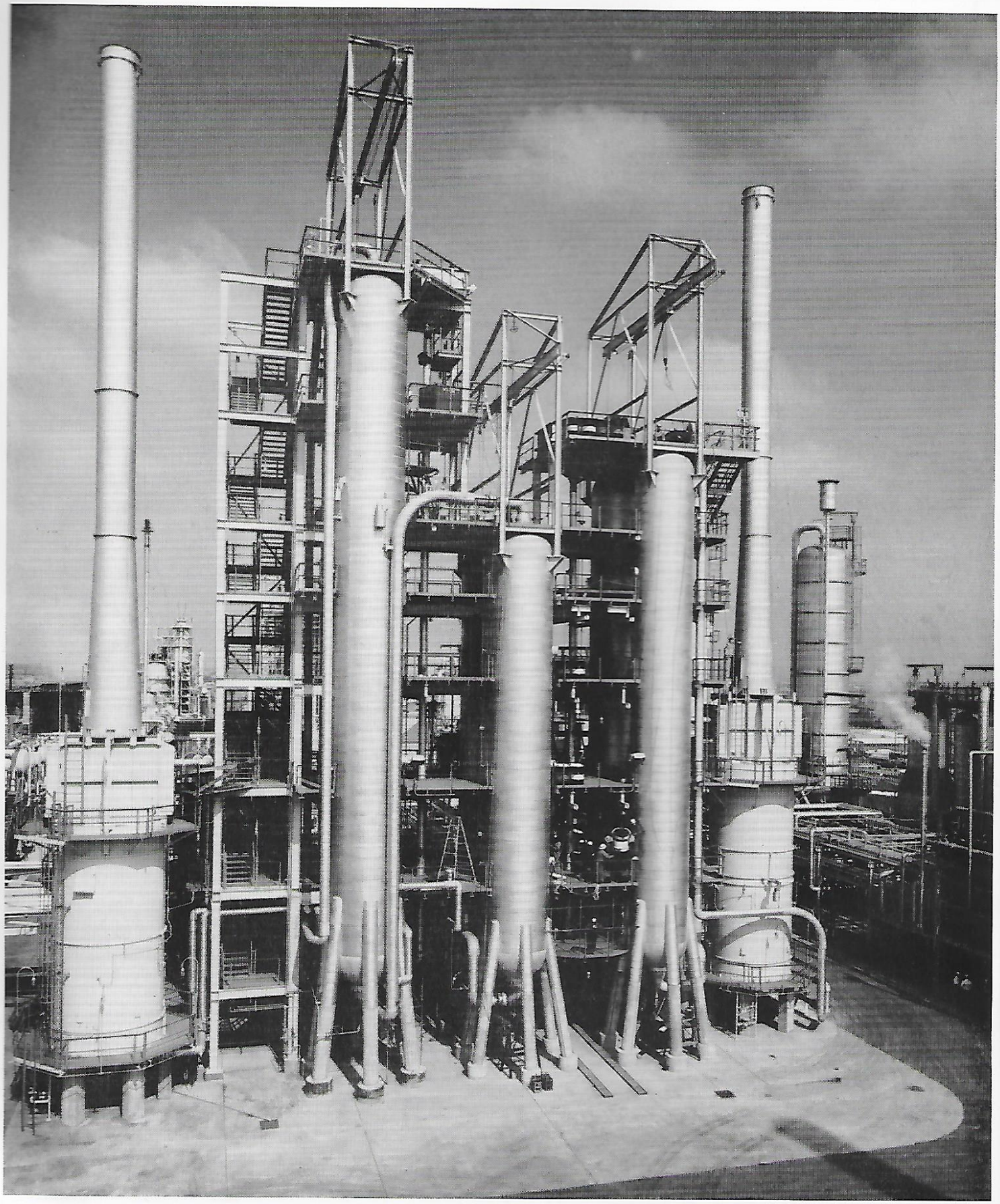
The artists liked the 76 because the numerals worked well together. Everyone else liked it because the number is one people remember because of its historical connotations.

When the Company tried to register the 76 as a trademark, the U.S. Patent Office refused. The Patent Office said the number could be construed as describing a property of the gasoline—its octane number or its A.P.I. gravity.

We weren't able to get a federal registry until 1950, when the Company proved by a survey that 82% of the motorists on the Pacific Coast identified 76 as the Union Oil symbol.

THE WORLD'S FIRST UNICRACKER

Careful planning, experimentation, and plenty of hard work by Union Oil research, refining, economics, engineering,



and operating personnel have paid off with one of the most efficient refining processes ever developed.

ONE DAY more than a decade ago, a group of men from Union Oil's Refining, Research, and Economics Departments sat down in the Home Office in Los Angeles for a Refining Department technical review meeting.

As a result of this meeting, Union Oil Company began pouring what would eventually total more than $25,000,000 into research, development, and construction. More than two dozen scientists would spend the better part of the next decade probing such rarefied horizons of science as catalysis and in doing so employ such exotic tools as nuclear-magnetic resonance techniques. In the end, they would come up with a process that promises to significantly improve our Company's profits, and will continue to do so for many, many years.

The purpose of the meeting was to bring together those men who were knowledgeable in the latest trends in marketing and those who were proficient in the newest refining processes. Jointly, they were to explore the market of the future and point toward the processes that could deliver the products of tomorrow. The group was in for a surprise.

At the meeting, the head of the economics group came up with a provocative topic. He predicted the market of the Sixties would be topsy-turvy. Not only would the market demand for gasoline and jet fuel skyrocket, but also the normally stable demand for fuel oil would shrink. Because oil refineries cost millions to build and are expected to last for many years, this projection brought an immediate reaction of concern.

The upshot was this: A refinery process was needed to convert fuel oil into gasoline, jet turbine, and diesel fuels. Most important of all, the process should be profitable.

At Union's Research Center, where scientists began pondering the problem, the hydrocracking process was among those suggested. Hydrocracking is a process in which petroleum molecules are cracked in the presence of hydrogen and catalyst while being subjected to heat and pressure. As far back as the Twenties, hydrocracking had been known. Yet it hadn't caught on in the United States, largely because the technology of the Twenties called for vessel pressures up to 10,000 pounds per square inch, and it wasn't practical to build large vessels for these pressures.

The task our people undertook was to find a way to make the hydrocracking process work at less than 2,000 pounds pressure.

They found the way. The tangible results of the years of research were 25 thick volumes of calculations, specifications, and mechanical designs—for a process and a plant that *worked*.

*

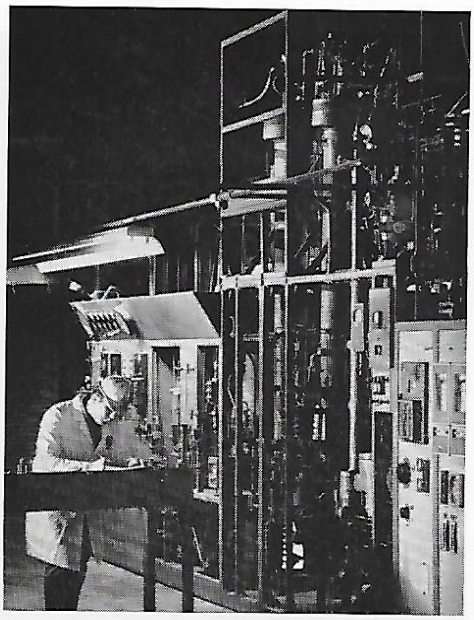
The Unicracking-JHC process that had its genesis in that meeting many years ago became a commercial reality on November 30, 1964. On that day, a $22,000,000 Unicracker using Union Oil's own advanced hydrogen and catalytic cracking process went on stream at the Los Angeles Refinery.

The new plant, situated on a 3.5-acre site, completely converts heavy, low-value oils into high-quality gasoline. Further, it makes 124 barrels of product from every 100 barrels of feed stock. (The actual *weight* of the product is approximately the same as that of the feed stock. But, since the gasoline produced weighs less per gallon than the heavier oils that go into the feed stock, there is a "volume swell.")

The Unicracker, rated at 16,000 barrels a day, is now exceeding its design capacity: It is operating at 19,500 barrels a day. We are planning to revamp it for still more throughput, possibly 23,000 barrels a day.

It is obvious that Unicracking is an efficient, economical process—and one that is applicable to Pure Oil Division refineries. We are now studying the possible installation of a Unicracker at Smiths Bluff.

Two unicrackers (including our own) are in operation and eight more are planned or under construction by six other leading oil companies. So, in addition to the higher profits from improved operations, the Unicracker is bringing royalties from licenses that will add to the Company's income for years in the future.



▲ This pilot plant built at Union's Research Center in Brea, California, was used in the development of the Unicracking-JHC process. The Unicracker at Union's Los Angeles Refinery has 300,000 times more capacity.

▼ Before construction could begin on the Unicracker, engineers had to prepare 25 volumes of engineering data. Pictured, from left to right: C. D. Bradley, C. E. Gardner, and R. A. McKean with mechanical design summaries.

SUPERTANKER LAKE PALOURDE

▲ Union Oil's supertanker "Lake Palourde," newly jumboized from 67,000 to 118,000 tons, is shown as it arrived at Los Angeles with 870,000 barrels of crude from Kharg Island, 11,530 miles distant in the Persian Gulf. The trip required 29 days, 6 hours, and 15 minutes.

Union and Pure combined 1964 operating summaries

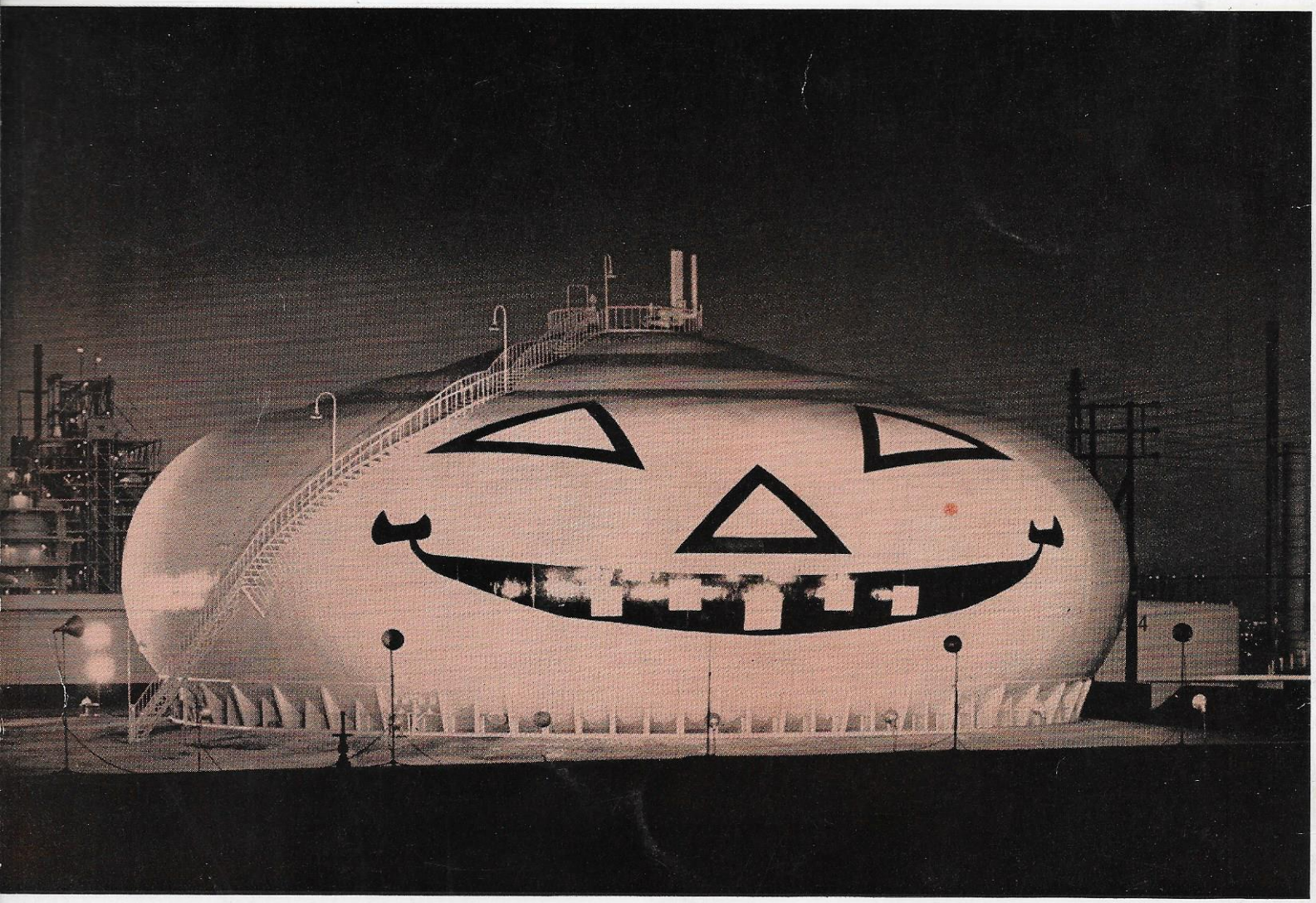
IN CONNECTION with the financial figures on assets, gross operating income (sales), and net income shown below, it is interesting to note that in 1964 Union Oil Company ranked 51st among the nation's industrial corporations in assets, 110th in sales, and 45th in profits. Pure Oil ranked 66th in assets, 104th in sales, and 115th in profits. If the merger had been effected in 1964, the combined company would have ranked 22nd in assets, 47th in sales, and 29th in profits.

	Union	Pure	Combined
Financial ($ thousand)			
Total assets	895,280	766,064	1,661,344
Gross operating income	567,693	605,234	1,172,927
Net income	67,064	31,518	98,582
Reserves			
Crude and condensate (MMbbl)	547.0	478.59	1,025.59
Plant liquids (MMbbl)	86.0	38.75	124.75
Total liquids	633.0	517.34	1,150.34
Gas (billion cu. ft.)			
From properties	5,900	2,848.55	8,748.55
From plants	9	43.14	52.14
Total gas	5,909	2,891.69	8,800.69
Production			
Crude and condensate (b/d)	116,000	79,412	195,412
LP-gas and natural gasoline (b/d)	14,500	5,433	19,933
Natural gas (Mcf/d)	604,700	320,656	925,356
Refining			
Capacities (b/d)	186,300	195,500	381,800
Average crude runs (b/d)	162,100	180,700	342,800
Products sold (b/d)	153,200	217,574	370,774
Exploration (net wells completed)			
Oil producing	144	81	225
Gas producing	22	9	31
Dry holes	85	41	126
Total	251	131	382

PURE OIL COMPANY, A DIVISION OF UNION OIL COMPANY OF CALIFORNIA

200 EAST GOLF ROAD, PALATINE, ILLINOIS

Return Requested



THE WORLD's largest jack-o'-lantern is the 80,000-barrel Hortonsphere tank used to store natural gasoline at Union Oil's Los Angeles Refinery. Visible for 10 miles, the tank is painted each October a bright orange and is trimmed with huge eyes, nose, and grin.