
76
UNION OIL COMPANY
"On Tour"

On Tour

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In This Issue

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ON TOUR is published monthly by Union Oil Company of California for the purpose of keeping Union Oil people informed regarding their company's plans and operations. Reader participation is invited. Address communications to ON TOUR, 617 West 7th Street, Los Angeles 14, California.

Chief Geologist

HARDLY recognizable inside an arctic parka is Earl B. Noble, the Company's chief exploration geologist and author of this month's story on Canada.

Equipped with a Ph-B from Yale University, considerable University of California post-graduate schooling, and several years of experience as a roughneck, lease-hound and geologist in petroleum's University of Hard Knocks, Earl came to work for Union Oil in 1923. After a period of apprenticeship under such colorful Company pioneers as Rolfe McCollom and "Dry Hole" Charlie Woods, he moved steadily up the promotion ladder to become chief geologist in 1937 and manager of exploration in 1944. It was in November, 1948, that the Company's expanding program of exploration brought about his appointment as chief exploration geologist.

Earl was the fourth man to head our Exploration Department, following in the footsteps of Orcutt, McCollom and Myers. He has watched the department grow from a handful of men working almost entirely in California to the present organization covering 17 states and two foreign countries. During his time and in the face of production totaling 331 million barrels, the Company has realized a 133-million-barrel increase of new oil.

The chief exploration geologist's present assignment is to find new oil areas beyond the confines of our present operating divisions and to give others within established divisions the benefit of his wide experience. His office is in Los Angeles, but you are more apt to meet him on some trail in Central or South America or on the frozen muskeg of Northern Alberta.

Thanks to photographer F. W. E. Round of Banff for this study of Mt. Assiniboine in the Canadian Rockies

Canada's Prospects Unlimited

By Earl B. Noble

IN THE PAST, young men have been advised to "Go West" and later to "Go South." At present, there are equally good economic reasons for persuading men of brawn, brains, vision and training to "Go North"—to Western Canada.

Today's greatest single attraction in the north country is oil—not alone the rich discoveries that have been made, but the vast potential area that lies unexplored. The region that has already attracted all Canadian and most American oil companies into a feverish leasing race is large enough to contain the entire state of California and leave wide margins to spare. In fact, the portion of Western Canada in which oil may eventually be found is as large in area as the states of Texas, California and Oklahoma combined. It is bounded on the west by the Rocky Mountains, on the east by the Canadian Shield, and extends northward from the International Border on the south through the plains of Alberta

and through hundreds of miles of practically uninhabited muskeg in Northwest Territory to the Arctic Ocean's bleak shores some 200 miles north of the Arctic Circle.

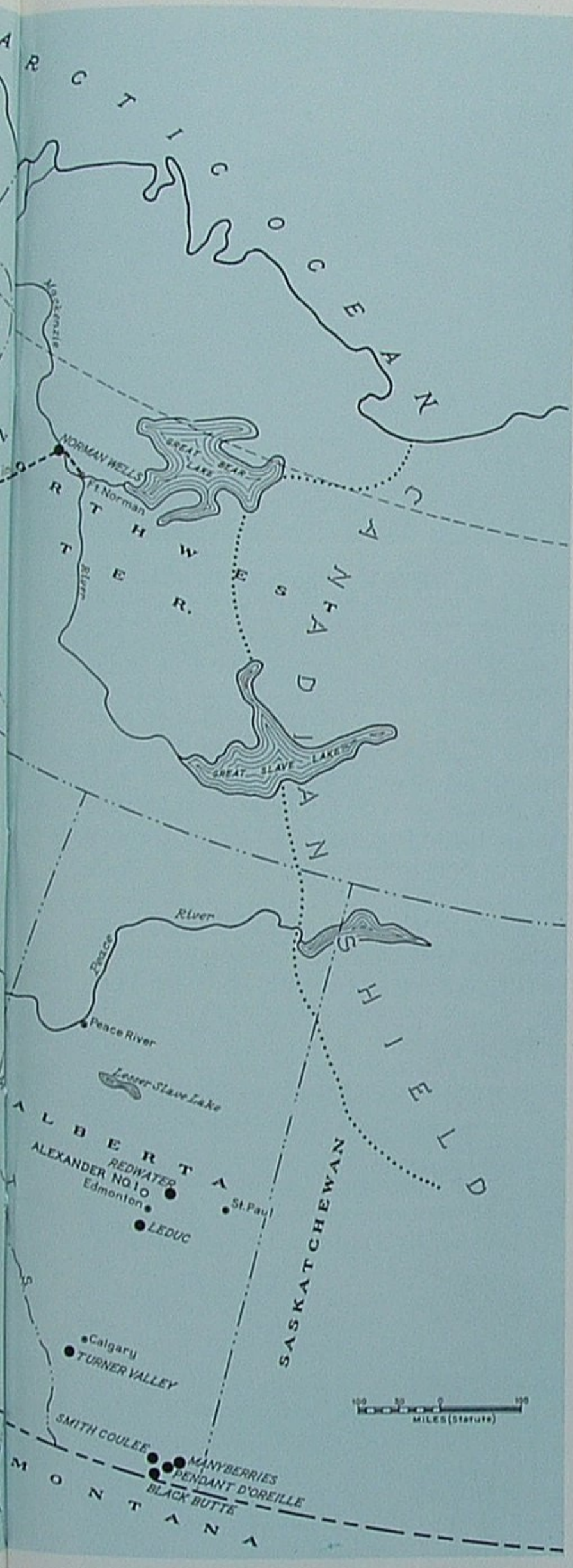
But oil is only one source of possible wealth in Western Canada. The prairie provinces produce great quantities of wheat, cattle and coal, and British Columbia has vast forests and mineral deposits. Fisheries on the west coast provide another important source of revenue. American tourists, now spending $300,000,000 a year in Canada, will visit the attractive scenic areas in far greater numbers when suitable roads are built. The new Alberta oil discoveries are already producing substantial revenues from which, undoubtedly, will come money for the building of roads and other facilities to invite future migration.

Along with other American oil companies, Union Oil was prompt to recognize the great petroleum possibilities of Western Canada.

This venture marks our return rather than entry into the Canadian industrial picture. In 1922, with the formation of Union Oil Company of Canada, Limited, we began supplying California crude and a number of refined products to our northern neighbors. The crude was processed in a refinery at Port Moody, near Vancouver, and Union products were important to the industrial development of an extensive area. In 1945 we sold all of our Canadian facilities to the British American Oil Company and retained only tankship contact with this former market. Later, in 1946, we became interested in gas prospects near the Montana border, and began drilling in partnership with McColl-Frontenac Oil Company. Through this joint exploration venture we now have a half-interest with McColl-Frontenac in the Black Butte, Smith Coulee, Pendant d'Oreille and Manyberries fields, located in Southern Alberta a short distance north of the International Boundary.

Until recently, the only major field in Western Canada was Turner Valley. The original discovery of oil in the shallow

Search for oil in the muskeg areas is best accomplished in winter garb and winter weather, say these geologists.



Dave Connolly, Company geologist, examines cuttings from our first well on Alexander Indian Reservation.

sands was made in 1914, but the magnitude of the field was not realized at that time. In 1924 "wet gas" was discovered by the Royalite Oil Company in the underlying Madison limestone, and in 1936 the same company discovered oil on the flank of the structure. Subsequent development proved the field to be capable of an ultimate production in excess of 100 million barrels.

Further exploration resulted in a number of relatively small fields being found in the southern plains of Alberta. It was not until the discovery of Leduc in February, 1947, that the tremendous possibilities of this region were recognized. Previous to this discovery, Imperial Oil Company is reported to have spent some $23,000,000 and drilled 121 exploratory wells in the search for new oil. The Leduc field, located some 20 miles southwest of Edmonton, will probably produce in excess of 200 million barrels of crude. A favorable feature of the field is that it produces a very desirable, high-gravity oil from two intervals of porous limestone at reasonably shallow depths varying from 5,200 to 5,800 feet.

Following Leduc, other wells were drilled in the central plains area, resulting in the discovery of the great Redwater field in September, 1948. Although the extent and possibilities of this field are not yet fully known, it is evidently a major discovery in the 300-million-barrel class. The oil comes from a reef limestone of Devonian age similar to the lower producing horizon of the Leduc field. The oil resembles Leduc's as to type and gravity but is found at a much shallower depth of about 3,000 feet.

Redwater followed so closely on the heels of Leduc's discovery that oil companies intensified their search and added to their already large land holdings. Shortly after the discovery of Redwater, a check of land maps showed that over 40 million acres of Alberta's crown lands had been taken under reservation. Undoubtedly many more millions will be added in Alberta and

Winter roads are cut by bull-dozer through the tree-covered muskeg to admit trucks and exploration gear.

adjacent provinces as the exploration work spreads out.

It is significant that at Norman Wells in Canada's Northwest Territory, some thousand miles north of Leduc and Redwater, oil is found in porous Devonian reef limestone under somewhat similar geological conditions. This field produced at a rate of 3,000 barrels per day during the latter part of World War II. The oil was sent to Whitehorse, Yukon Territory, via the Canol Pipeline as part of the U. S. Army's Alaskan supply plan. Since the cessation of hostilities, the pipe line has been removed and the field has been idle. The interesting fact is that oil-bearing limestones of the same age and same general character exist at these widely separated localities.

Our Union Oil exploration program will be concentrated in the central plains area, although eventually we hope to include other parts of Western Canada. Extensive geological and geophysical work is contemplated, combined with core drilling wherever shallow marker beds can be used satisfactorily. Present plans call for the drilling of wells both on our own prospects

On the job as we began to explore were (L-R) S. G. Wissler, chief paleontologist, W. W. Heathman, exploration manager for Western Canada, and Earl B. Noble.

and on farmouts from other major companies as the opportunities arise.

We are now carrying on a joint exploration program with the Hudson's Bay Oil & Gas Company involving both reflection seismograph surveys and core-hole drilling on 1½ million acres in the Peace River district; and are engaged in a three-way deal with the Hudson's Bay and British-American on 200,000 acres in the St. Paul area.

We have also drilled one well on a 16,000-acre farmout from Imperial Oil Company. This test was located about 22 miles northwest of Edmonton on Indian lands. Our objectives were the same porous zones in the Devonian limestone that are productive at Leduc and Redwater. *(Since this report was begun, our test well, Alexander No. 1, has been abandoned at a total depth of 5,542 feet. Several oil shows were encountered and seven drill-stem tests were made of porous or oil-stained zones, but none of these tests indicated the presence of oil in commercial amounts at this location.)*

Calgary, where our Exploration office was opened this year, is now experiencing a genuine oil boom. Although located close to the great Arctic frontier, it is a busy, modern, comfortable, hospitable and sports-minded city. Annually the Calgary Stampede is an interesting and exciting event, followed by the colorful Indian Days at Banff. In the winter there is an enjoyable "bonspiel" in which hundreds of expert contestants compete for prizes in the ancient Scottish sport of curling. Each weekend a ski train travels from Calgary to Banff, treating a cheerful crowd to some of the world's most beautiful mountain scenery and two days

As our senior geophysicist for Western Canada, W. E. Strangman is relying on seismograms to determine where oil is most apt to be trapped beneath the muskeg.

of snow sports. Enthusiastic fans follow the football games and hockey matches, and almost everyone enjoys winter skating and fishing and hunting during the spring and fall.

In contrast, the Northwest Territory, lying to the north of Alberta, reflects a way of life dating back to 1670, when the Hudson's Bay Company was founded. Here a vast basin of lakes and muskeg drains into the northward flowing Mackenzie River, which eventually reaches the Arctic Ocean. The endless miles of muskeg prevent summer travel except by float-plane or along the streams and lakes by canoe. Indian trappers come out of this wilderness to trade such furs as mink, fisher, marten, fox, white weasels, squirrel, snow rabbit and wolf for the goods and trinkets of urban society. In the extreme north there are weeks of endless darkness during winter and a similar period during summer when daylight stays on the job 24 hours every day.

Oddly enough, it is during the winter months, when thermometers may register 30 to 40 degrees below zero, that the geophysical crews do much of their exploratory work in the muskeg areas. When the muskeg and lakes are frozen, it is possible to transport heavy equipment over terrain that would swallow it during warmer weather. Bull-dozers are used to cut roads through the wooded districts and to plow through the areas of drifted snow. Core drills and seismic outfits have to be winterized and, in the more remote areas, portable camps must be provided. Unless the snow is deeply drifted, trucks can travel under their own power. However, it is usually advisable to have a tractor available at all times. The Indians often travel across the frozen ground on horse-drawn sleds, on which are mounted the Indian equivalent of a trailer-house, complete with wood-burning stove.

Union Oilers who are spearheading the Company's northernmost quest for additional petroleum reserves are led by W. W. Heathman, exploration manager for Western Canada, who formerly was manager of operations in Kansas. His staff at present consists of Russell W. Burns, chief geologist; W. E. Strangman, senior geophysicist; Don R. Clark, William D. Connolly and T. Tyler, junior geologists; Douglas Leitch, scout; and Miss Mary Evelyn Fagan, secretary. We have great hopes that they will be able to solve the riddle of the north country's Devonian limestone and find substantial oil reserves in this vast new territory.

(Left-right) Don R. Clark, junior geologist, and Russ W. Burns, chief geologist, whose work extends to the Arctic.

The first lady of our recently opened office in Calgary, Alberta, is charming Miss Mary Evelyn Fagan, secretary.

BAKERSFIELD

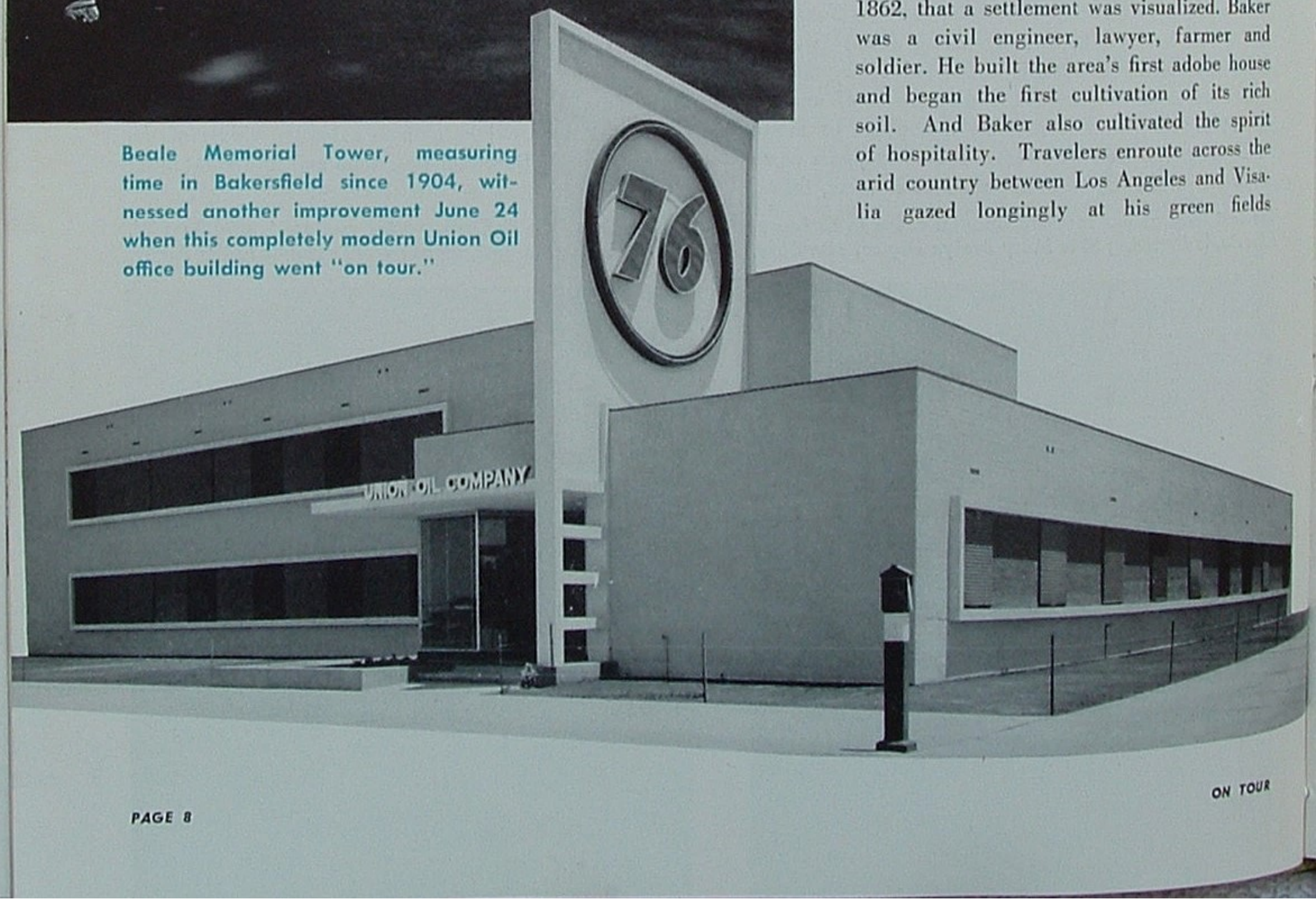
And a Home of Our Own

THE open door and a hearty welcome have become not only a tradition but a practice in Bakersfield, urban center of California's bounteous Kern County.

Probably the first white man to make this discovery was Padre Garces, a Spanish Franciscan, who during May of 1776 passed through San Joaquin Valley while in quest of a new and shorter route between Sonora, Mexico, and Monterey, California. He found no reception committee awaiting him, but the banks of Kern River near present-day Bakersfield served as a restful oasis after many miles of torturous desert travel.

It was not until nearly 100 years later, with the arrival of Colonel Thomas Baker in 1862, that a settlement was visualized. Baker was a civil engineer, lawyer, farmer and soldier. He built the area's first adobe house and began the first cultivation of its rich soil. And Baker also cultivated the spirit of hospitality. Travelers enroute across the arid country between Los Angeles and Visalia gazed longingly at his green fields

Beale Memorial Tower, measuring time in Bakersfield since 1904, witnessed another improvement June 24 when this completely modern Union Oil office building went "on tour."

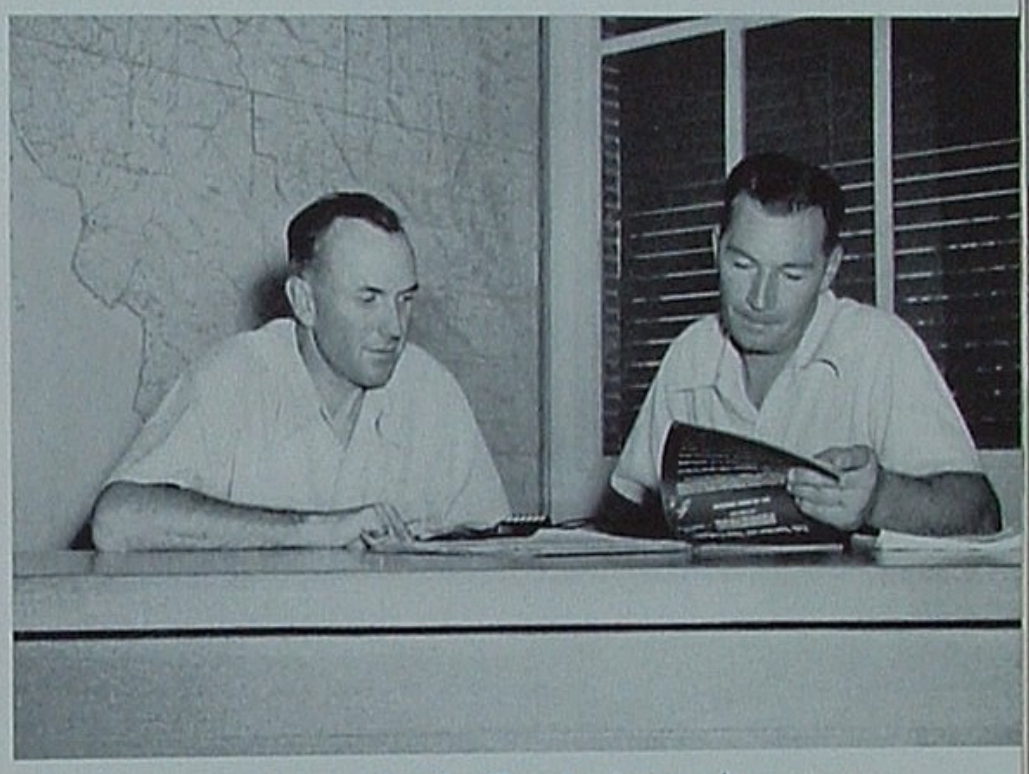


(L-R) F. J. Barker, assistant petroleum engineer; V. S. Moyer, division production engineer; C. A. Brown, drilling foreman; W. P. Geissinger, head clerk; R. A. McGoey, superintendent; R. W. Rampton, senior petroleum engineer; R. F. Fei, trainee; and M. E. Bowman, draftsman, initiated the new conference room round a prized Frank Hill table.

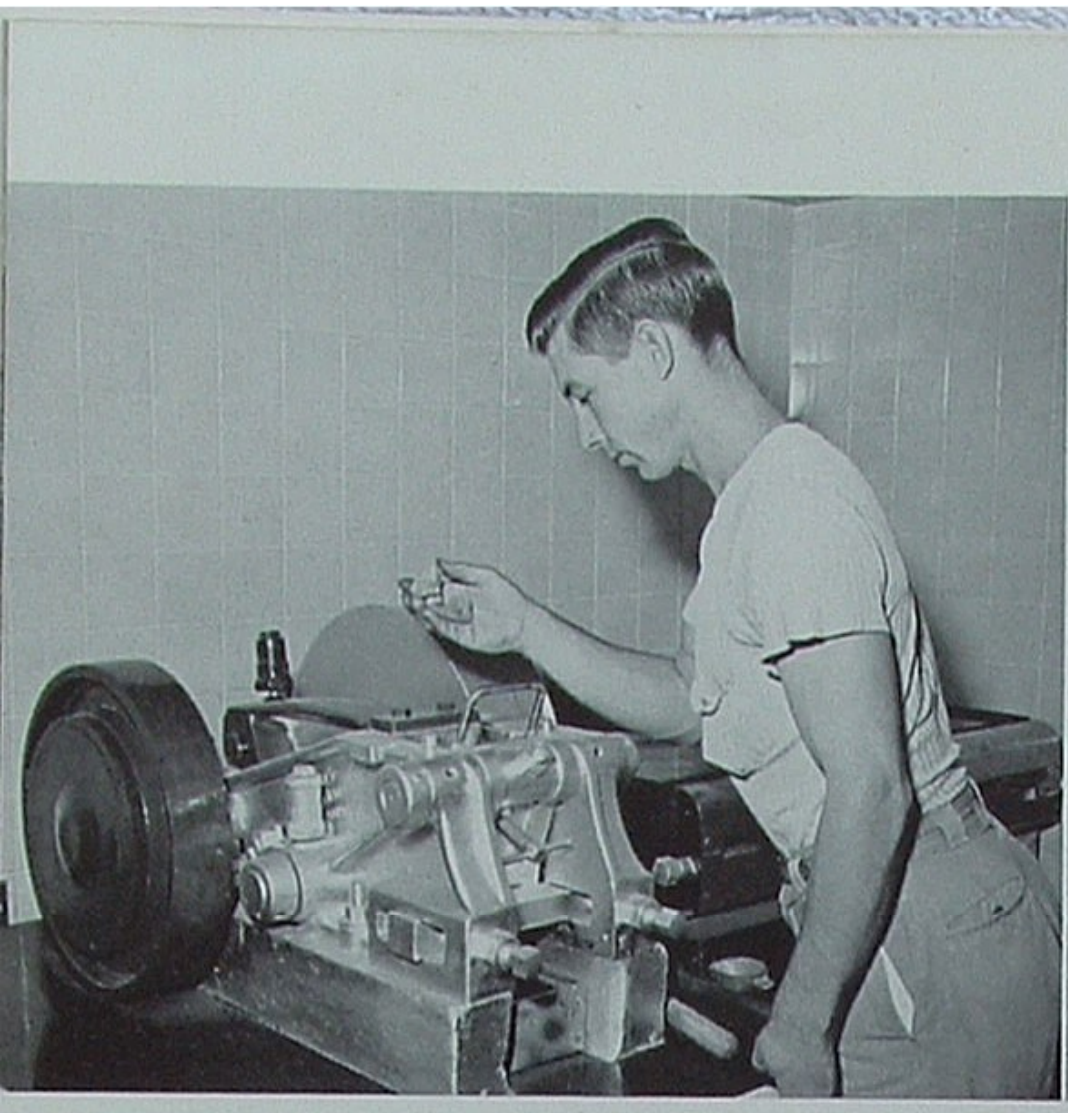
and adobe shelter. They found the gates unlocked to their livestock, the door open, and the smiling proprietor anxious to share the wealth of his land with everyone. Baker, before he died in 1872, surveyed and marked out a townsite. It was appropriate that the incorporated city later honored him by adopting and perpetuating the name and friendly manner of Baker's field.

After a few years of agricultural settlement and development, Bakersfield suddenly attracted nationwide interest. Among the settlers who had observed oil seepages along Kern River was Tom Means, who purchased 2½ acres of possible oil producing land from a Mr. Norris for $100. Means merely held the land for 11 years, then hired a job hunter, J. M. Elwood, to dig an exploratory hole through the seepages with pick and shovel. Elwood's aged father joined in the venture and together they hand-dug a shaft some 50 to 70 feet deep. At that depth enough oil and gas were encountered to make pick and shovel work impossible. Rigging up a threshing machine engine and some homemade tools, the prospectors then drilled the hole to 200 feet and found themselves with the discovery well of Kern River field. This touched off one of the great booms of petroleum history, bringing oil men and fortune hunters on the run from all corners of the earth. Forty years after its discovery date in June, 1899, Kern River field had produced about 300 million barrels of crude. Meanwhile, Bakersfield had swept up the boom debris and preserved its open-house congeniality.

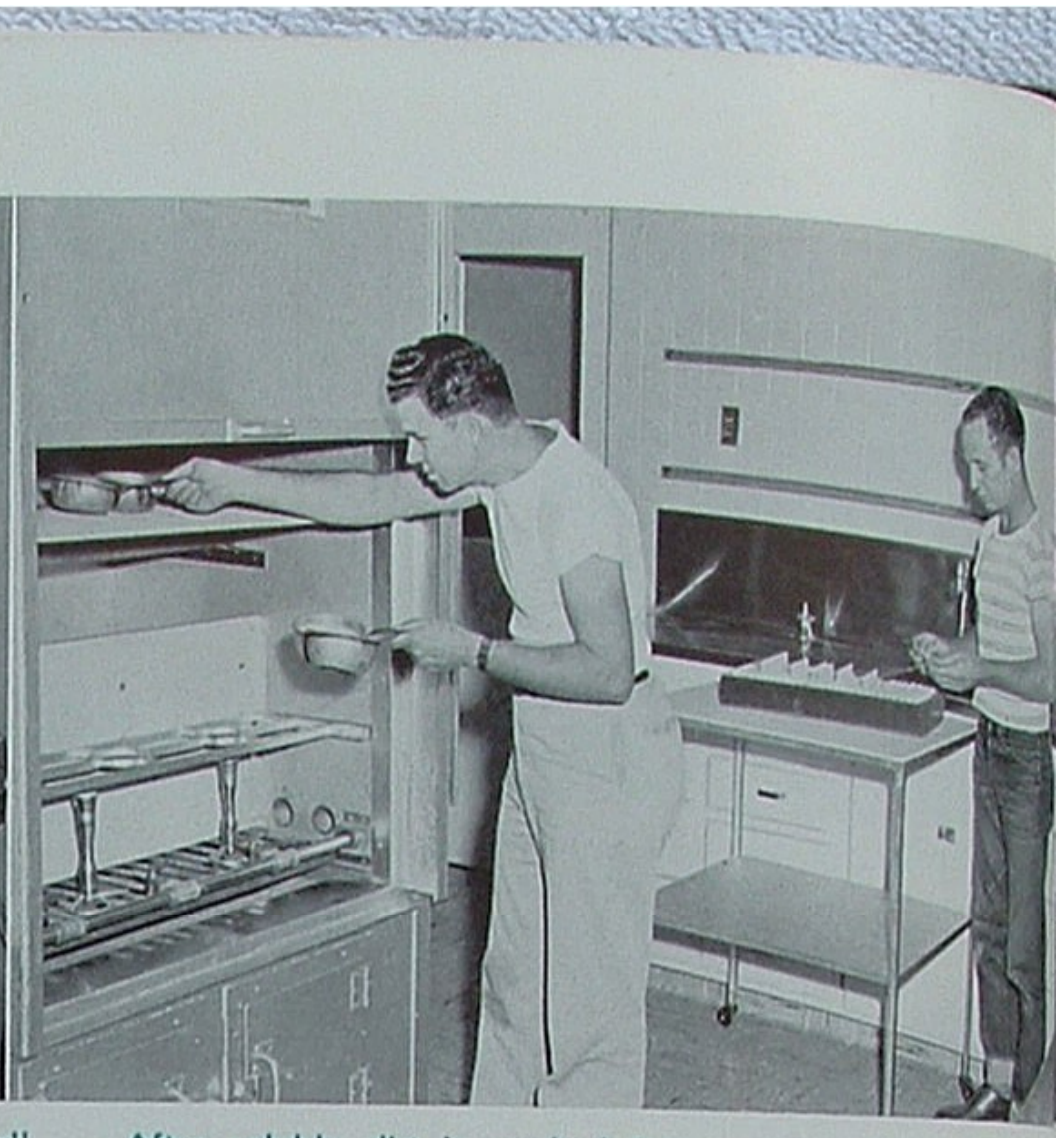
Kern River was not the first and by no means the last of San Joaquin Valley's famous oil fields. At Coalinga and McKittrick, small quantities of heavy oil had been produced as early as 1887. But it was not until the boom of 1899 that these fields were stimulated to their greatest activity. The following are the most important San Joaquin oil fields found up to 1948, listed in the chronological order of their discovery:



Literally engaged in a land office business above are J. M. Maxwell, landman, and J. E. Koogle, division landman. Below, F. Tincher, scout; J. J. Bryan, division geologist; J. Harding, geologist, are caught mapping.



Our new building boasts one of the best "bug" (paleontological) labs in existence. Lee Turner, above, starts process by running core samples through crusher.



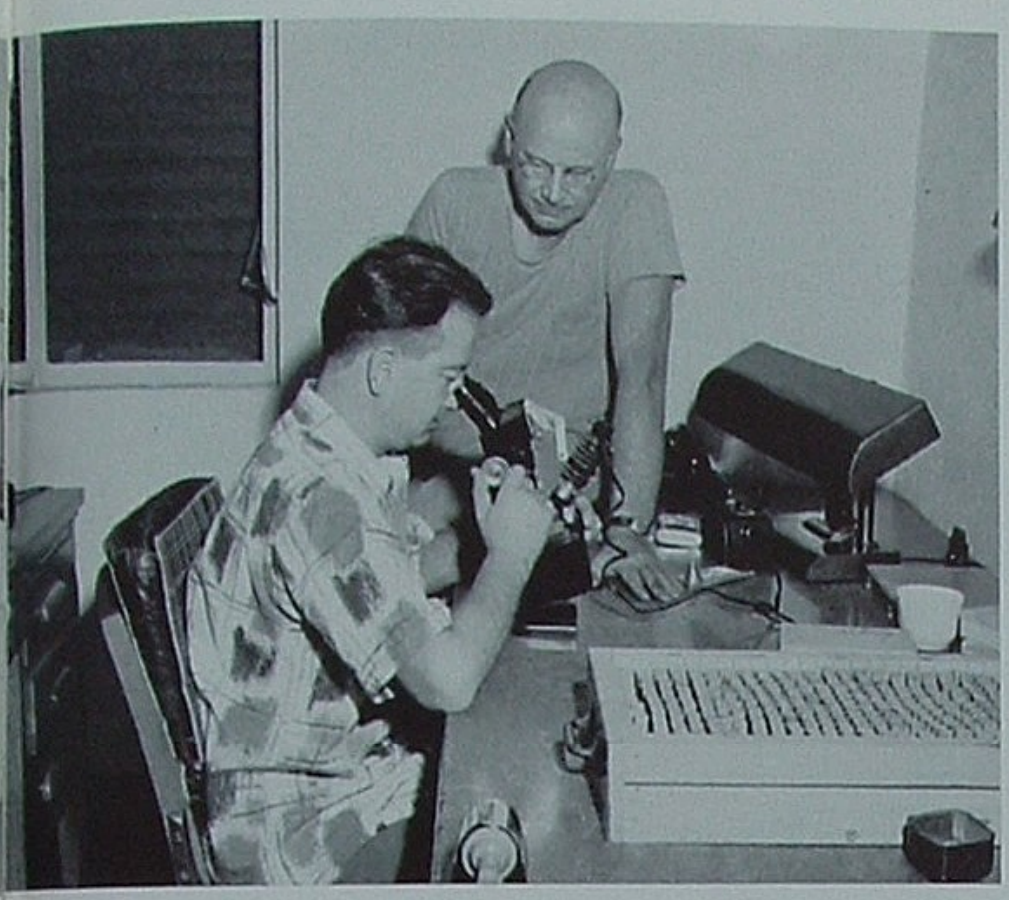
After soluble dirt is washed from samples, they are placed in dryer by Harvey Schlotthauer. Ernest Bryan then checks separation of tiny shells from rock . . . .

Purchasing Department's J. E. Hilliard, clerk, and E. B. Parry, purchasing agent, find the new built-in book shelves made to order for their library of catalogues.

John Sloat, geophysical supervisor, and Jerry Fawcett, assistant geophysicist, an off-shore seismogram.

Coalinga	1887	Coles Levee	1938
McKittrick	1887	Chico Martinez	1938
Kern River	1899	Strand	1939
Midway-Sunset	1901	Paloma	1939
Buena Vista	1909	Pyramid Hills	1940
Lost Hills	1910	Union Avenue	1941
Devils Den	1910	Raisin City	1941
Belridge	1911	Helm	1941
Elk Hills	1919	Riverdale	1941
Wheeler Ridge	1922	Antelope Hills	1942
Kern Front	1925	Lanare	1943
Mount Poso	1926	McClung	1943
Round Mountain	1927	Burrel	1943
Fruitvale	1928	Race Track	1944
Kettleman Hills	1928	Blackwells Corner	1944
Poso Creek	1929	Bellevue	1944
Edison	1931	Ant Hill	1944
Mountain View	1933	Gosford	1944
Ten Section	1936	Rosedale Ranch	1945
Greeley	1936	McDonald Anticline	1945
Wasco	1937	Jasmin	1945
Rio Bravo	1937	San Joaquin	1947
Tejon-Grapevine	1937	Bacon Hills	1947
Canal	1937	Kern Bluff	1947
Canfield Ranch	1938	Comanche Point	1947

Union Oil Company has been very much a part of San Joaquin Valley since the Kern River boom first developed. Construction of our Maltha Refinery, located on the outskirts of Bakersfield, was begun in 1900. This refinery, first used as an asphalt plant and later adapted to the manufacture of gasoline and other



. . . Finally, L. B. Holcomb, paleontologist, and Frank Dreyer, senior paleontologist, examine shells under microscope to determine geologic age of sample rock.

refined products, went on stream in 1902. We promptly leased several properties in the producing areas and drilled our first productive well in 1903 at Coalinga. Our Coalinga property, known as the Iredell Lease, was acquired from Southern Pacific Railroad Company and produced 5,704,000 barrels of oil from 23 wells up to the time our lease expired in 1947.

Later, in 1910, we hit a petroleum jackpot when Lakeview No. 1 blew in a few miles from Bakersfield, ran wild for 18 months, and aroused the entire world by yielding a record production of nine million barrels.

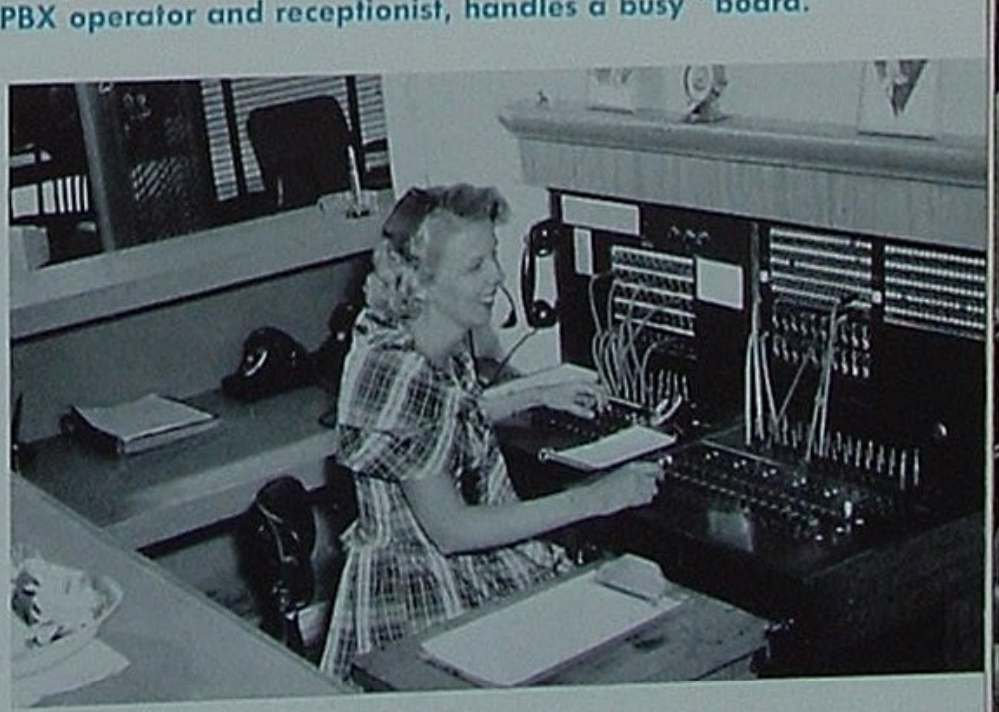
Also to the Company's credit in the valley are four field discoveries, one of which—Rio Bravo—called for the deepest wells ever drilled up to 1937. We are credited with important extensions in three other fields. Our Northern Division pipe line, carrying San Joaquin crude to Port San Luis, was built during 1909 and has been operating steadily since 1910.

Marketing of our products was handled at first directly from Maltha Refinery. However, in 1915 a separate marketing station and offices were constructed. Bakersfield today serves as our District headquarters for all marketing operations throughout the valley.

For these many inferred reasons, plus the fact that Company management is optimistic about San Joaquin Valley's future, Union Oil officially opened our new office building in Bakersfield on June 24, 1949. For a better observation of the building, we recommend the accompanying pictures, whereon are also introduced some of the Union Oilers who carry on Bakersfield's cordial tradition.

"Your coffee hot or cold?" inquires Sherrie Roux, stenographer, as she tries out combination cooking and freezing unit. The pantry adjoins office conference room.

Guests for a moment in the reception foyer are Corene Stoner, stenographer; Evelyn Van Wy, secretary; and Dolly Crandall, stenographer. Below, Lorraine Cosner, PBX operator and receptionist, handles a busy "board."



They Saw Everything...

A FEW years ago it would have been rather ludicrous for a working man to suggest his shop, plant or factory as a good place to entertain family and friends on his day off. But, judging from the rising success each year of open-house day at Los Angeles Refinery, times, shops and families have changed.

This year's come-and-see gesture of good will toward the families and neighbors of Union Oilers was generally acknowledged to be the best ever. Impressive skill, mechanical and artistic, was evidenced in the models and exhibits, many of which have practical value as training aids during the normal routine of refinery operations. Weeks of planning and arranging were necessary to accommodate and entertain a large crowd of visitors amid facilities that must be kept in productive operation. However, the expressions of interest and applause paid by approximately 3,700 guests during the epic day of June 11 were ample reward for such effort.

Visitors began arriving even before the announced 9 a. m. starting time. They were escorted first through the personnel building, where most of the models and exhibits were on display. Many took restful advantage of the projection room, where several interesting training films were shown. Outside they later inspected a collection of automobiles dating from 1907 to 1949, meanwhile listening to announcements and touring invitations broadcast over a public-address system.

A bus tour of the working refinery also provided a 30-minute spectacle at the fire-training grounds. Here

The family of Thomas H. Gaines (left) considered this excellent oil shale mining and retorting model somewhat easier to understand than dad's dinner table descriptions of it. Seen explaining the process is Cloyd P. Reeg, Process Development engineer.

from the safety of a grandstand, they were thrilled by several realistic demonstrations of how petroleum fires are controlled and extinguished.

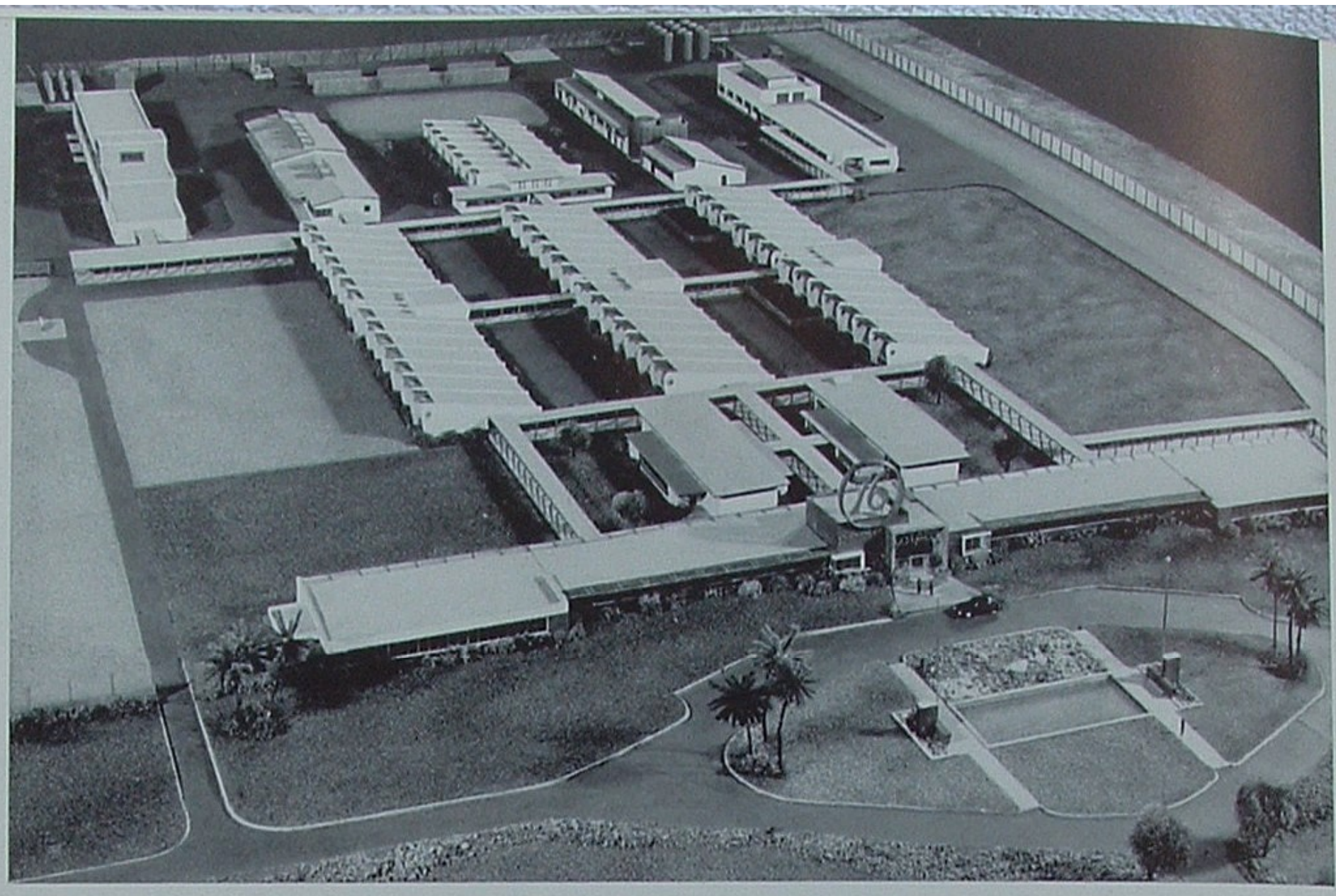
Then, boarding busses again to the Research Department, many saw for the first time how oil is refined —how fuels and lubricants are tested in laboratories and on the highways—what an electron microscope is and does—how in many ways the oil industry is constantly seeking to improve its services to humanity. Here too they were impressed by a model of the new Research center soon to be built at Brea.

Finally there were stops for refreshments at the cafeteria; several carnival rides for the children; and souvenirs at the gate as delighted visitors turned again toward home.

Many compliments have been won and deserved by employees who made this interesting and informative day possible. With extraordinary skill and thoroughness, they made it possible for Union Oil and Union Oilers to become increasingly proud of each other.

Even employees who have worked for many years at Los Angeles Refinery obtained more information and a better understanding of the plant via this table model.

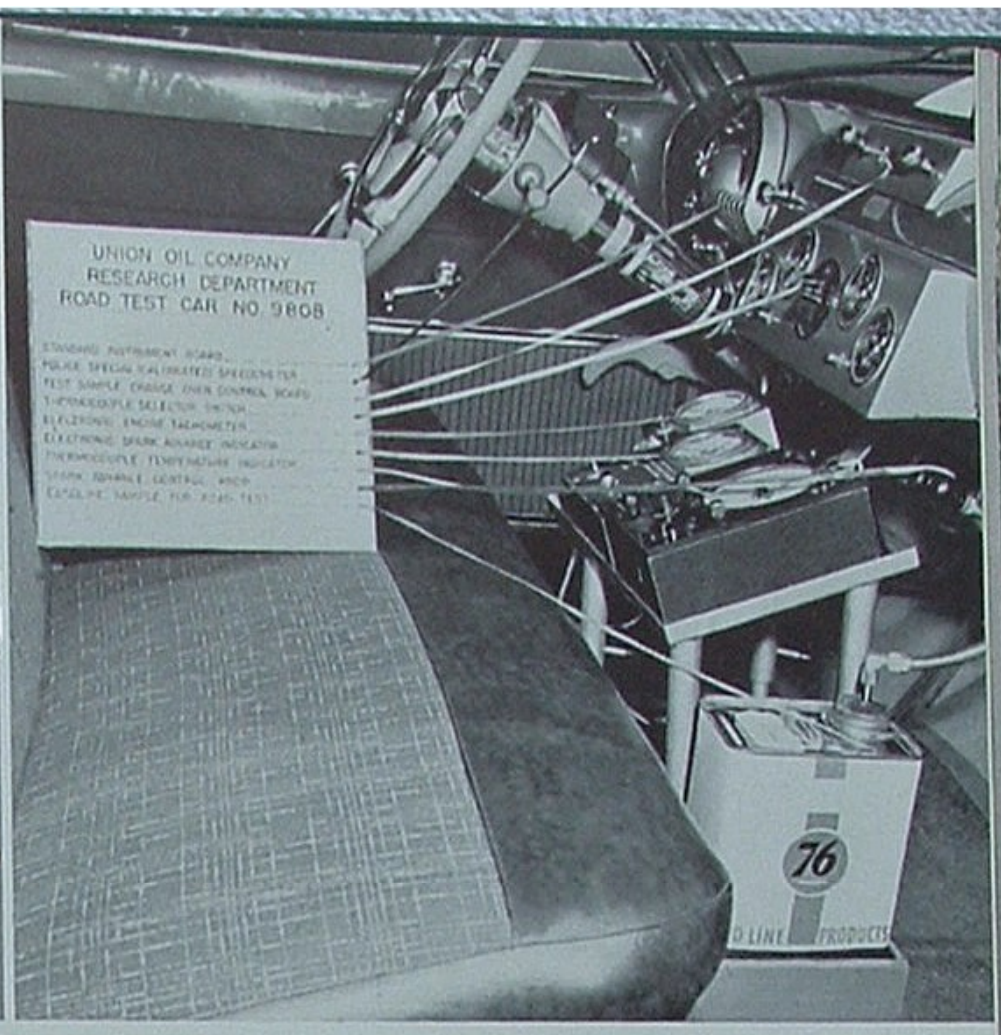
Michel Zuniga (right), an associate engineer in the Manufacturing Process Department, found these Long Beach dealers interested in techniques of the TCC unit.



The Research Department unveiled for the first time a model, by Austin, Field and Fry, of the Company's $5,-000,000 research plant to be built near Brea, California. It will be ready for use in the fall of 1950.

In a merry Oldsmobile of 1909 vintage, Union Oilers (L-R) Belva Bunce, Wilma Wills, Evelyn Meyn, Edith Bishop, Martha Dick and Mary Owens took to the open.

The small fry little dreamed of finding a bona fide gay-way "on stream" at the refinery. Coupled with free pop, ice cream and cake, it rounded out a perfect day.



On display at the Research Department were some of the road-testing instruments by means of which "76" and "7600" are kept ahead of auto requirements.

Here are about one-tenth of the visitors who attended open house and helped to make it the most successful event of its kind in Company history. They are seated in a grandstand adjoining the fire-training grounds where expert teams of employee fire-fighters demonstrated their skill in extinguishing and controlling oil fires.

New York Office

Our office home in New York City is located in this illuminated 70-story RCA Building, central structure of the 14-building development known as Rockefeller Center.

ONE of the busiest and most versatile Union Oil offices in America is far removed from California, occupying a suite on the forty-ninth floor of Rockefeller Center's RCA Building in New York City.

Outside the office windows is a most spectacular panorama, largely man-made. Famed Central Park is on the north. The Hudson River clings to its ancient course and modern usefulness along the west. On a clear day planes can be seen over La Guardia Feld, and occasionally the Catskill Mountains are seen to form the distant horizon. Or often you can look down on the Forty-ninth Street Pier and see such famous Cunard liners as the QUEEN ELIZABETH and QUEEN MARY docking. Nearly everywhere beyond and between these familiar landmarks rises the world's greatest city itself.

Originally, the Company's New York office was established to handle duties of a sales and public relations nature. We needed more intimate marketing contact with head offices of eastern companies, whose operations span the continent. Moreover, New York is the foremost center of foreign activity, where prospective jobbers and distributors come in great number, and from where over 400 exporters operate on a world-wide basis. Here also are owned or held in trust important quantities of Union Oil stock, for which proxies must be solicited annually.

But other Company departments were quick to appreciate the advantages of an eastern office. Purchases of fuel oil for the Panama Canal, Chile and other remote points are best expedited through New York. Through-

A. D. Gray, former district sales manager at Portland, Oregon, was appointed special representative at New York on July 16th, 1949, succeeding M. H. Weston.

A. R. Ousdahl, former Oleum chemist, was our Atlantic States technical representative until his promotion to special representative, Chicago, effective 1st of August.

out the Atlantic States is a large potential market for special products and refinery surpluses. When the Marine Department sends a tankship to the Atlantic Coast or Caribbean, they find it convenient and economical to have an East Coast representative who can handle cargo contracts with the proper brokers. Our purchasing men frequently ask for shipments of materials and parts as fast as only an on-the-spot Union Oiler can make the necessary arrangements. And the Executive Department finds many uses for a personal ambassador on Fifth Avenue or Wall Street.

When office doors open in New York, our receptionist can count on many surprise visitors. Besides such regulars as the brokers, exporters, and officials of our own and other companies, people from all walks of life and many nations enter to inquire about the Company's activities.

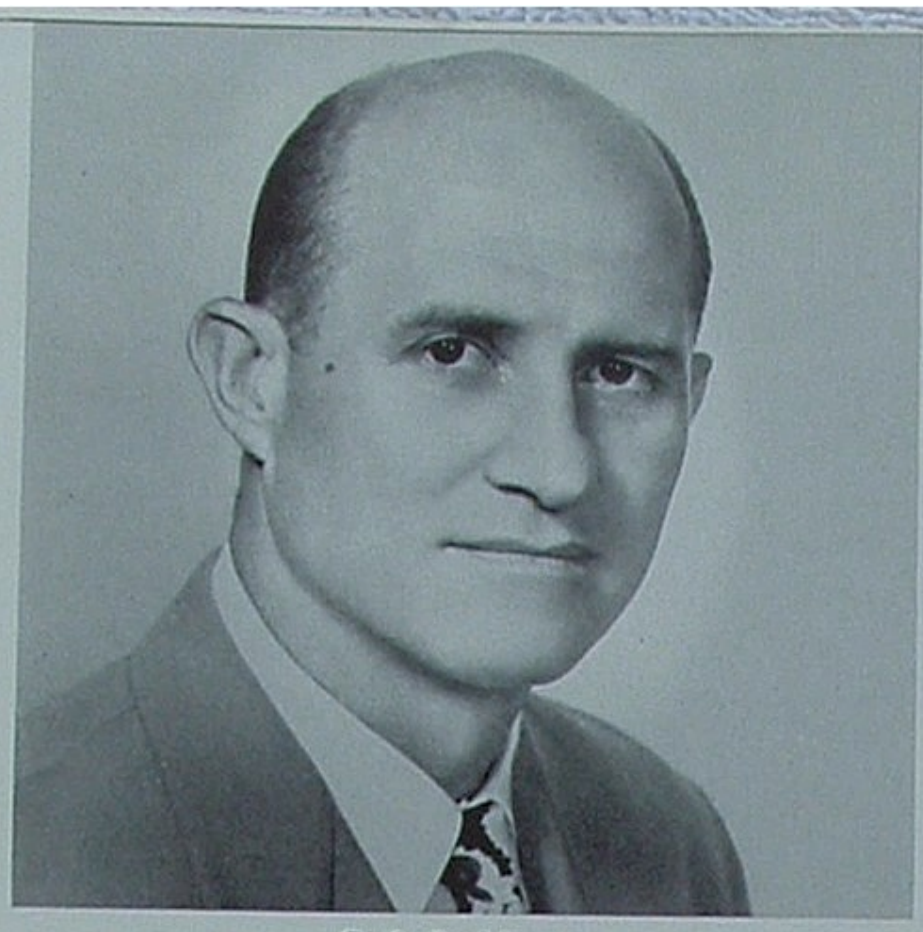
Job hunters ask about opportunities in our foreign and domestic service. Students, attracted by our institutional ads, bring many requests for brochures and other forms of information. Shareholders inquire about our stocks and dividends. Western tourists drop in for new credit cards and sight-seeing suggestions. Easterners, bound for the West, stock up in advance on everything from roadmaps to advice about carrying waterbags and spare cans of gasoline across the Mojave Desert. Every now and then in pops the broad smile and drawl of a West Coast employee who wants to take in the whole city on two remaining days of his vacation. Everybody is warmly welcomed.

Since its opening in January, 1942, our New York office has meshed activities with many prominent industries, enterprises and people to provide the Company with excellent contacts and services.

This lamp-post view of the RCA Building identifies its location amidst such other famous New York landmarks as Radio City Music Hall, Time & Life Building, Fifth Avenue.

Another personable ambassador of Union Oil in New York is Ruth E. Renner, secretary, who greets visitors.

Capably and pleasantly handling many secretarial duties in our structurally highest office is Blanche Walker.



C. E. Rathbone

Wesley E. Jenkins

Earl R. McCloud

George S. Smith

Organization Changes...

THE appointment of **W. E. JENKINS** as assistant territory manager of Central Territory, with headquarters at San Francisco, was made effective July 1. Jenkins started with the Company as a service station student salesman in 1933, advanced to service station manager in 1938 and, after several other promotions to retail assignments in the Northwest and Central territories, was made district sales manager, Oakland, in 1946.

Replacing Jenkins at Oakland as district sales manager is **C. E. RATHBONE** who, since 1947, had served as assistant manager of Head Office Sales Services (wholesale). Rathbone joined the Company in 1929 as an Accounting Department clerk; transferred to service station supervisory duties in 1940; and has advanced through a series of marketing responsibilities to his present job.

GEORGE S. SMITH, former district sales manager at Chico, is the new assistant manager Sales Services (wholesale) in Head Office. Smith was first employed by the Company as a tank truck salesman in 1933. He served as resident manager successively at Calistoga, Paso Robles, Salinas, Stockton and Sacramento before being appointed area manager at Stockton in 1945 and district sales manager, Chico, in 1946.

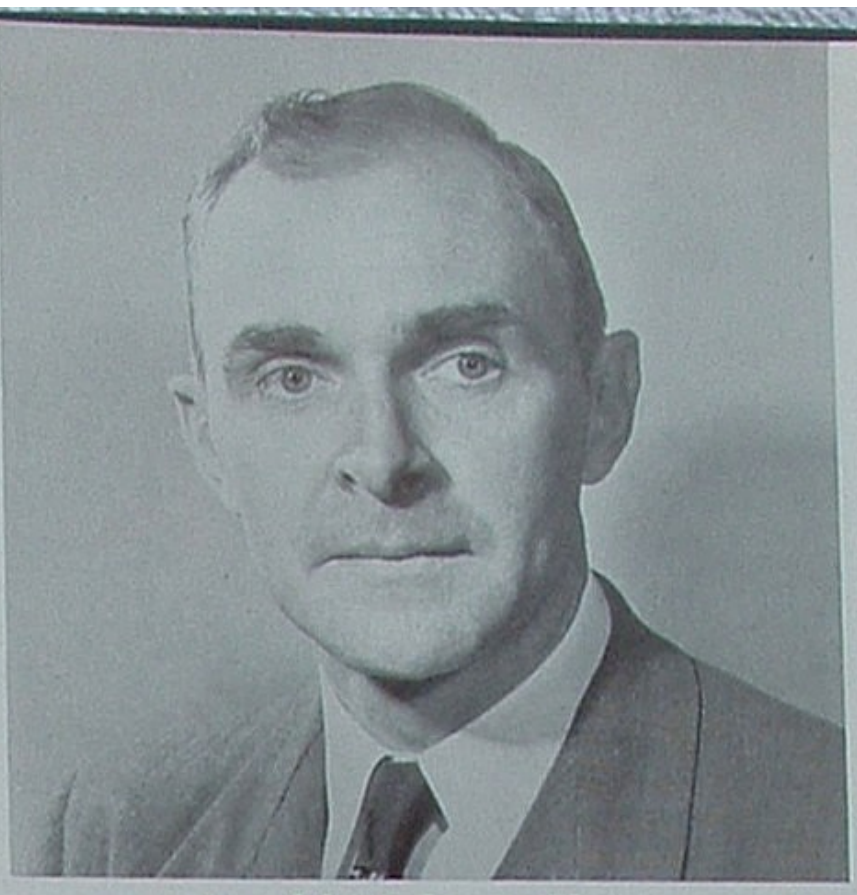
J. J. GRUNEWALD succeeds Smith as district sales

manager at Chico. He was first employed by Union Oil in 1935 as a tank truck salesman in Monterey. After three years' experience as assistant agent at Santa Cruz and Salinas, he entered the U. S. Air Corps in 1942. Returning to his Salinas job in 1945, he was soon promoted to resident manager at Monterey and in 1948 was made resident manager at Stockton.

The appointment of A. D. Gray (whose picture appears on Page 16 of this issue) as special representative at New York City prompted his being replaced as district sales manager, Portland, by **H. W. BRAGG,** formerly at San Diego. The latter started with the Company in 1929 as a tank truck salesman and advanced through several sales and resident manager assignments in Southwest Territory to his present responsibility.

Following Bragg to the district manager's assignment in San Diego District, effective July 1, is **E. R. McCLOUD,** who previously had been resident manager at Pasadena. McCloud, starting in 1926 as a service station operator, gained further Southwest Territory experience as a tank truck salesman and later as a salesman and resident manager at Hyde Park, Los Angeles, Hollywood, Burbank, Glendale and Pasadena.

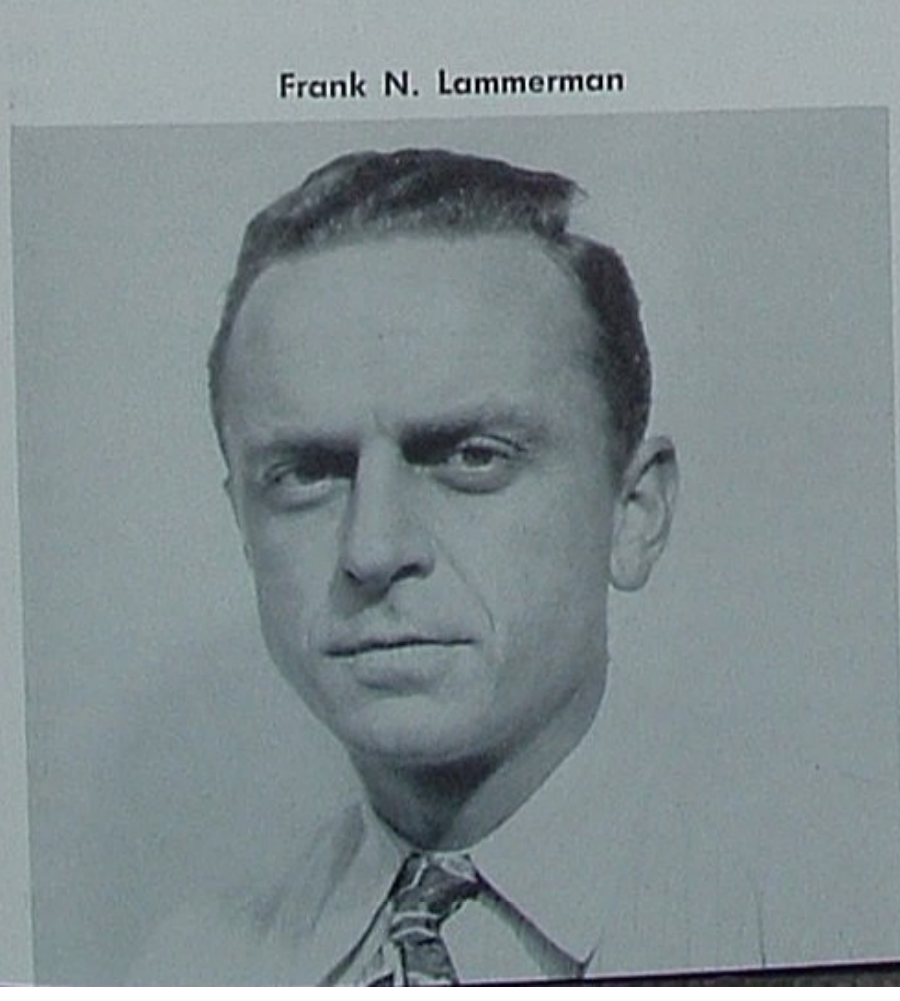
APOLOGIES are herewith extended by ON TOUR for inadvertently identifying the picture of **FRANK N. LAMMERMAN** as being Frank Van Acker in our July issue. Frankly, we were dealing with one Frank too many. Each is an assistant superintendent of Cracking at Los Angeles Refinery. Van Acker is in charge of Unit 151. Lammerman is in charge of Units 33, 34 and 20. Their "cracking" operations in July apparently branched out far enough to include the editor. We guarantee the accompanying identifications.



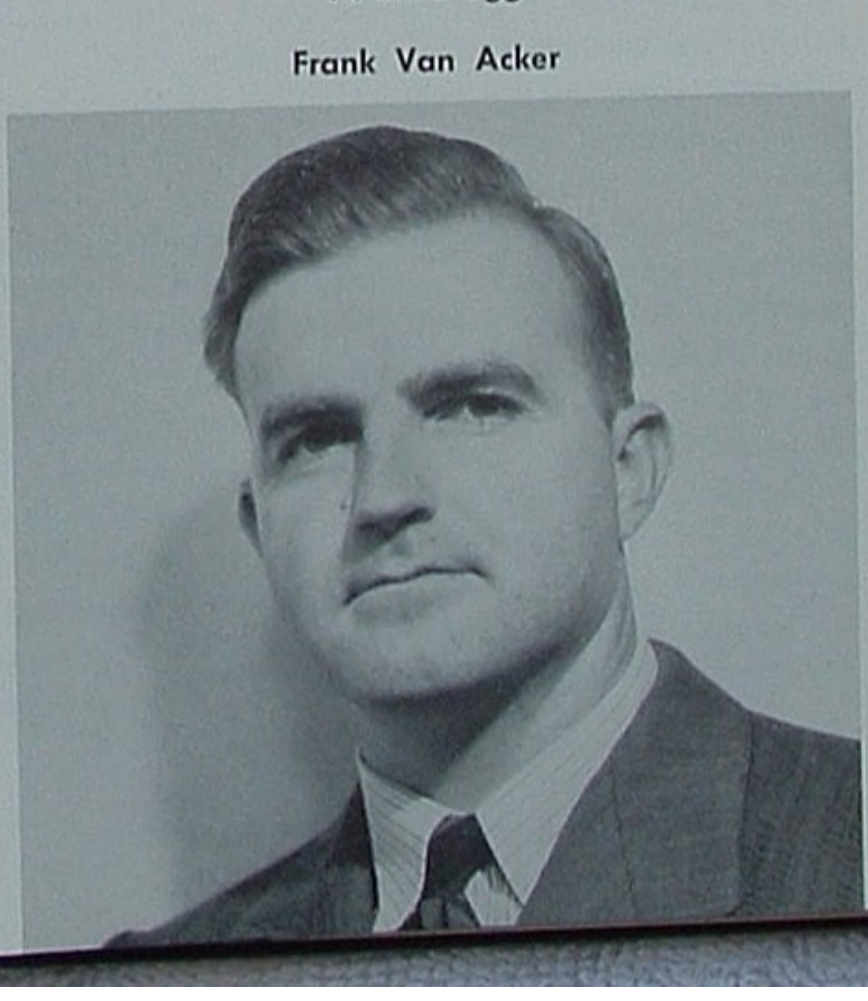
John J. Grunewald

H. W. Bragg

Frank N. Lammerman



Frank Van Acker



INDUSTRIAL SUMMARY

MANAGEMENT BULLETIN #28

The following tabulation is made on the average prices of "housebrand" gasoline as of February 28, 1949, in selected cities in the seven western states:

GASOLINE TAXES IN THE WEST

	Retail Price Excluding Tax	Combined State and Federal Tax Rate	Retail Price Including Tax	Per cent Tax
PHOENIX	21.9¢	6.5¢	28.4¢	28.68%
SALT LAKE CITY	21.5	5.5	27.0	25.58
BOISE	24.0	7.5	31.5	31.25
RENO*	21.8	7.0	28.8	32.11
SAN FRANCISCO	19.1	6.0	25.1	31.41
PORTLAND	20.5	7.5	28.0	36.59
SEATTLE	20.5	8.0	28.5	39.02
SPOKANE	22.6	8.0	30.6	35.40
LOS ANGELES	18.6	6.0	24.6	32.26

*Reno tax rate includes the 1.5 cents optional county tax.

LOW GRAVITY CRUDE OIL PRODUCTION SHUT IN; PRICES REDUCED

Since the first of the year, the Company has shut in almost 16,000 barrels per day of its own low gravity production because of a substantial decline in the market for heavy fuel oil and asphalt which are the principal products obtained from this type crude.

However, despite the reduced output of heavy fuel oil brought about by shutting in this Union Oil production, and some curtailment by others, fuel oil is still being produced at a rate substantially in excess of the market demand. The severe weakening of the fuel oil market resulted in a substantial price decline for these commodities, and the prices which the Company had been paying for low gravity crude oil were resulting in an operating loss from the production of these products.

Therefore, on May 14, the Company announced a price reduction of 25 cents per barrel for crude oil in the Santa Maria, Cat Canyon, Gato Ridge, Lompoc and Orcutt fields. Shortly afterwards, a major competitor announced further price reductions for low gravity crude oil in additional fields and at the same time lowered fuel oil prices an additional 15 cents per barrel. Simultaneously, the prices for higher gravity crudes, those containing a greater percentage of gasoline, were increased. Our Company met these price adjustments.

As you know, your Company is studying methods by which low gravity crude oil can be refined into gasoline, diesel oil and other light products for which there is an increasing demand.. However, there can be no doubt that it will take a considerable period of time to develop this program. Until such facilities are in operation, it will be difficult to find any markets for surplus fuel oil and, consequently, we are storing as much heavy crude oil as possible below ground rather than above.

COMPETITION

For the past nine years there has been an abundance of purchasing power and a relatively limited supply of most products. Under these conditions, a producer or marketer has not had to *sell* in order to dispose of his products at a profit.

However, as you all know, conditions have changed considerably. Not only can we all obtain the products we use in our daily lives, but we are being actively sold on the merits of the various brands, makes and models. As consumers, we can choose. As suppliers, we have to *sell*. This condition also applies to the petroleum market.

From all indications, competition will continue in the oil business and this presents an added responsibility for us all. If we are to maintain and improve our volume of business, we must all become salesmen for the Company's products. In this highly competitive era, sales must be everybody's business.

PRICES AND VALUE OF PETROLEUM PRODUCTS

As shown by the Wholesale Commodity Price Index of the Bureau of Labor Statistics, the average price of all commodities for 1948 was 64.9% higher than in 1926. Petroleum prices, however, had increased only 22% in the same period. Comparable percentage in-

creases for other essential commodities were: Food 79.1; textiles 48.7; building materials 98.6; and fuel and lighting (including petroleum products) 34.1.

As an example of what this means, in 1922 the average worker in a manufacturing industry had to work more than six hours to earn enough to buy 10 gallons of gasoline. In 1939 he had to work almost three hours. Today, to buy 10 gallons of a superior grade of gasoline, he has to work only one hour and 57 minutes. Or stated another way, in 1939 a farmer had to raise a bushel of wheat to buy 3½ gallons of gasoline. In 1948 the farmer's bushel of wheat would buy 7.9 gallons.

from Reese H. Taylor

• MANUFACTURING

The dewaxing plant at Oleum is now in successful operation making high quality wax-free oil with higher yield than formerly obtainable. This is the third unit to be started as part of the Triton program. The final two units are expected to be put on stream in the early fall.

Two new heavy duty diesel engine oils—Dexol and Guardol—have been placed in production this month. These oils are fortified with additives to a greater degree even than is T5X. Guardol was developed primarily for lubricating the new supercharged Caterpillar engine now being introduced, and Dexol was developed primarily to lubricate diesel engines operating on fuels containing well in excess of 0.5% sulfur, which are common on the West Coast. Dexol also is suitable for use in gasoline motors, particularly for heavy-duty purposes. Both oils meet U. S. Army requirements.

from Basil Hopper

• PIPE LINE

Pipe Line facilities were completed in June to deliver production purchased from Superior Oil Company's Heath Lease in the South Cuyama Field into Richfield Oil Corporation's Cuyama Field gathering system. In exchange for this oil, Richfield will redeliver crude oil to us from the North Coles Levee Field in San Joaquin Valley. Superior Oil Company have completed three wells on their 320-acre Heath Lease which are currently producing a total of 1,500 barrels per day.

A two-way radio telephone has been installed on our tug AVILA at Port San Luis which enables our launchmen to contact tankers within the harbor area and up to a 100-mile range. This communication service will facilitate the scheduling of wharf crews for handling ships and will expedite docking operations.

from J. Howard Robinson

• MARKETING

Ground-breaking ceremonies for a $150,000 addition to the Northwest Territory office were held recently at 2901 Western Avenue, Seattle. Those who gathered for the event were pleasantly surprised when the large shovel brought a horseshoe out of the ground, a relic from days when the Company used tank wagons and the principal products sold were kerosene and axle grease. The original building was erected in 1924 and this is the second addition. The first unit was so spacious compared to the personnel housed that C. W. Ralph, former director of sales, is reported to have said to V. H. Kelly, then manager of the Northern Division, "Vic, if anyone ever talks to me about more space for the Seattle office, I'll know he's crazy." Those who remember the original office and relatively small staff can appreciate Ralph's remark.

J. U. Witt, Head Office Sales Services, has been elected treasurer of the System and Procedures Association, Los Angeles. Contact with this organization has been valuable, particularly from the standpoint of the I. B. M. installation.

from Harold D. Seeley

• FIELD

Jack Reed, drilling superintendent in the Coast Division, retired July 1 after 45 years (our record) of service with the Company. Jack thus winds up a distinguished career in the same district where he started to work January 1, 1904. At that time our Orcutt wells, at 3,800 to 4,000 feet, were among the deepest in the world. Using cable tools, then the most modern equipment available, each well required up to a year to drill. Jack owes much of his progress to the fact that he kept right on top of all the latest developments in drilling techniques. In the 1930's he was placed in charge of our Rio Bravo operations, where he drilled with rotary equipment to below 11,000 feet. The records he made there continue to stand.

Latest reports from Paraguay place Picuiba No. 1 at 7,515 feet.

Al Hilton, in charge of Washington operations, reports State No. 1 drilling at 7,012 feet. Heavier equipment is being installed in an endeavor to speed up operations.

Our wildcat on the Moxa unit in Wyoming, Government No. 1, has reached a depth of 11,922 feet.

Another well, Sansinena No. 20, has been completed in the La Habra Heights area. It is producing 100 barrels per day of 30-gravity oil. The deep test at Santa Fe Springs, Bell No. 107, is drilling ahead at 10,430 feet.

We have moved a "spudder" outfit into the old Tar Creek field in Ventura County, the scene of much drilling activity 50 years ago. Several wells will be drilled to around 1,100 feet.

from Basil P. Kantzer

Commended for Life Saving

By Jim Hill

ADD to our Company roll of honor the names of Fritz Karge, Marvin Kemp, Luther Stephens and Harold Lasley. Although their two acts of valor happened years apart, these men are being accorded their deserved recognition simultaneously:

Karge, Kemp and Stephens

A severe earthquake, occurring at 6 p. m. on March 10, 1933, broke the four-inch bottom drain line connections on three 80,000-barrel storage tanks at our Norwalk pump station. The three tanks were enclosed by an earthen fire-wall, but their content of crude oil exceeded the wall's capacity. It was only a matter of time until the crude oil would overflow into the nearby town of Norwalk, creating an extremely dangerous fire hazard.

Fritz Karge, then 49 years of age, was engineer of transportation for Union Oil. With four volunteers, including Marvin Kemp and Luther Stephens (the other two remain unidentified), he undertook to plug the broken drains.

The five men, risking death in the event the rising lake of oil became ignited, crossed to the tanks aboard a hastily assembled timber raft. Despite continuing earth shocks, they climbed to the top of each tank; placed a wooden trough inside the tank from the roof manhole to a point near the drain opening; then slid sacks of sand down the trough until the bottom drain line on each tank was plugged.

During Field Department barbecue at Stearns Park, (L-R) John T. King displayed Bureau of Mines diplomas which, together with medals of honor, were presented to Marvin Kemp and Fritz Karge by R. D. Gibbs.

Their task demanded plenty of headwork and improvising as well as strenuous physical effort and nerve. It required 5½ hours of work under these conditions and in darkness to achieve results. But at 2:30 a. m. they plugged the last broken line and returned across the lake of oil to safety. By that time the oil had risen to within nine inches of overflowing. In addition to averting disaster, their action helped to prevent loss of about 160,000 barrels of oil.

Harold Lasley

On May 25, 1949, at about 5 p. m., Arthur Mays and Harold Lasley, Research lab inspectors, were working with a glass column in the distillation laboratory. Mays

With Thomas McLean as stand-in for victim, Harold Lasley reportrays the accident. The round glass vessel shattered and fell, cutting an artery in assistant's arm.

Lasley quickly stopped the rapid loss of blood by locating a pressure point and pressing the artery closed with his left hand. He held grip until help arrived . . .

was steadying the column with one hand while Lasley, standing on a ladder, adjusted a five-liter glass flask atop the control board. The flask suddenly broke, permitting a piece of razor-sharp glass to fall and strike Mays in the bend of his elbow. The glass completely severed a main artery.

Mays, somewhat in a state of shock, grasped the wrist of his injured arm, walked several feet from the control panel and sank down on the floor. He lost more than a pint of blood in the short time it took Lasley to climb down the ladder and reach his side.

Lasley, facing such an emergency for the first time, immediately recalled some of the first-aid training learned during his Boy Scout days and while serving in the U. S. Navy. Grasping Mays' upper right arm, he located a pressure point below the arm pit and, by pressing the artery against the bone, quickly stopped the flow of blood.

As the day shift had gone home, it took extra time to attract the aid of another laboratory employee in phoning for medical help. In fact, Lasley was obliged to keep his grip on Mays' arm until the refinery nurse arrived and applied sutures.

According to the doctor's estimate, had Lasley taken such a course of action as running or telephoning for help, or otherwise failing to pinch off the artery promptly, Mays most probably would have bled to death.

. . . Most grateful for Lasley's first-aid training and presence of mind is Arthur Mays, whose life was saved.

Here is a real-life example of why every man and woman should have first-aid training and should frequently review and practice its techniques. Both the Company and Arthur Mays are grateful to Harold Lasley for his training and presence of mind.

SERVICE BIRTHDAY AWARDS

AUGUST, 1949

Forty Years

Austin, Carence R., H. O. Comptroller's

Thirty-Five Years

Anderson, George, H. O. Comptroller's
Cole, Wiley A., Southwest Territory
Martin, Ralph W., H. O. Traffic
Rogers, Antone E., Central Territory

Thirty Years

Barnds, Clarence M., So. Div. Field
Chadband, Albert B., Coast Div. Field
Fackler Harry B., Southwest Territory
Fritzsche, Arnold O., Oleum Ref. Mfg.
Johnson, Ross B., So. Div. Field
Klassen, Dick F., So. Div. Automotive
Mooney, James G., H. O. Mfg.

Twenty-Five Years

Costa, Louis L., Oleum Refinery Mfg.
Dockrell, Albert C., No. Div. Auto.
Foster, Harold M., Coast Div. Field
Ketels, Vivian C., Central Territory
Kirby, Ernest S., So. Div. P/L
Meley, Aldon V., H. O. Purchasing
Toner, Lawrence E., Northwest Terr.
Whitlock, Arthur L., Northwest Terr.

Twenty Years

Allison, Nelson G., Research-Wilmington
Bennett, Thomas J., Maltha Refinery
Charlesworth, Ellis L., Oleum Ref. Mfg.
Cooper, Robert L., Oleum Refinery Mfg.
Dunn, James H., L. A. Refinery Mfg.
Golay, William H., L. A. Refinery Mfg.
Humm, Joseph, Oleum Refinery Mfg.
Lamborn, Marvin E., Central Territory
LeFebvre, Clarence I., Oleum Ref. Mfg.
Lenz, Adolph C., Coast Div. Field
McCullough, Frank C., Southwest Terr.
Noland, Paul K., Great Falls, Mont.
Oliver, Henrietta, H. O. General Sales
Olsness, Fred W., Northwest Territory
Porter, George L., Research-Wilmington
Schmitz, Leroy C., Northwest Territory
Sogard, Donalld A., L. A. Refinery Mfg.
White, Joe W., Northwest Territory
Williams, Ronald A., No. Div. P/L

Fifteen Years

Bontemps, Ralph John, Northwest Terr.
Gentle, Wm. D., Research-Wilmington
Groth, Ruth I., Northwest Territory
Heywood, Walter T., L. A. Refinery Mfg.
Mason, Elmer W., Oleum Refinery Mfg.
Morsman, Dean B., Northwest Territory
Myers, Frederick A., Southwest Terr.

Ten Years

Burkhead, Wayne Z., Gulf Div. Field
Cartwright, Lon D., Jr., Gulf Div. Field
Craig, Wm. R., H. O. Treasury
Elderkin, George P., reat Falls, Mont.
Haney, John C., Northwest Territory
Hulford, Norma E., Northwest Terr.
McIntyre, William A., L. A. Refinery Mfg.
Read, Arthur J., Southwest Territory
Shaw, Golda Mae, Southwest Territory
Trietsch, Roland H., Southwest Terr.
Wainscott, Gerral W., Coast Div. Field
Wildenhain, Johannes M., L. A. Ref. Cafe

Why gasoline costs you less today than it did in '39

	Gasoline per gallon†	State and Federal tax per gallon*	Aver. hourly wage‡	Approx. hrs. to earn 10 gallons plus tax
1922	24 8/10¢	4/10¢	.52	5
1939	13 4/10¢	6 4/10¢	.63	3
1949	20 4/10¢	6 9/10¢	$1.37	2

†Average 50 U. S. cities. Includes all taxes except Federal and State highway taxes.

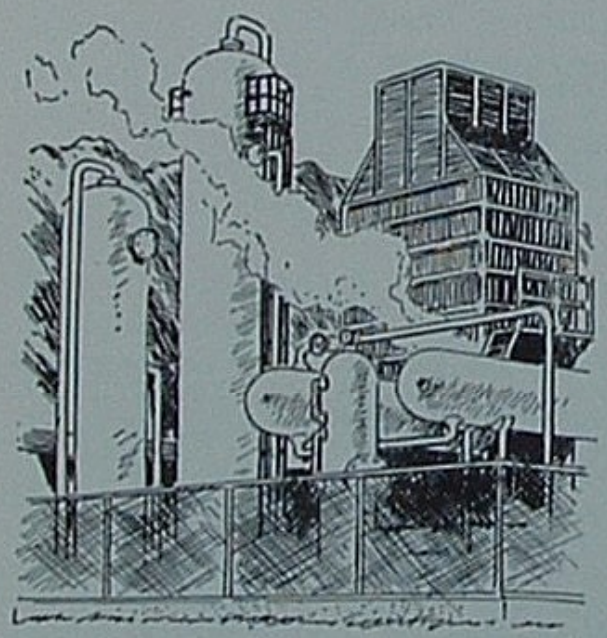
*Average for 48 States.

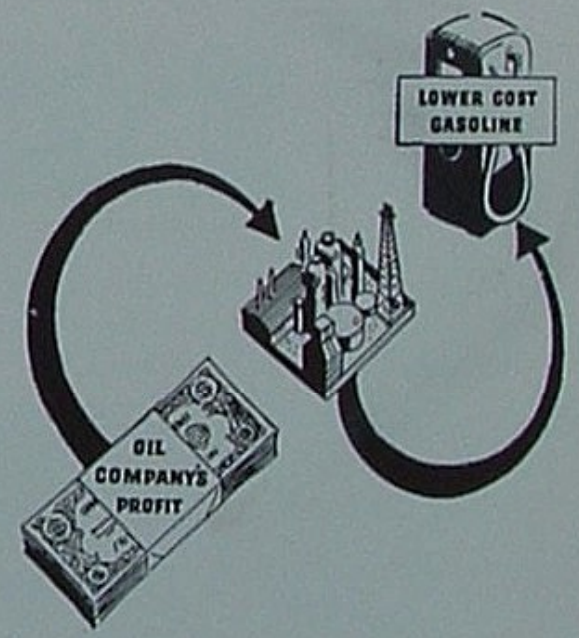
‡U. S. Bureau of Labor statistics for factory workers.

1. The price of gasoline today is higher than it was in 1939. But it actually *costs* you less. In 1939, for example, 10 gallons of "regular" gasoline cost the average U. S. factory worker 3 hours' pay. Today, 10 gallons of considerably *better* "regular" gasoline costs him less than 2 hours' pay.

2. In 1939 one bushel of wheat would buy the average U. S. farmer 3½ gallons of gasoline. Today, one bushel will buy him 7.9 gallons. And what is true of the factory worker and the farmer is true to a large extent of most other gainfully employed people in this country.

3. In other words, the price of gasoline has gone up less than wage rates and less than the price of most other commodities. Consequently, it actually costs you less in "real" dollars than it cost you in '39. What's the reason for this? Are the industry's labor costs down? No. Oil workers are among the highest paid wage earners in the country.





4. Are the industry's raw-material, tax and other "cost-of-doing-business" expenses lower? Quite the contrary. Are the owners taking less profit? No, dividend payments have been running higher, although they average only about 3½% of gross sales and represent a return of 4½% on invested capital. What is the answer then? Simply this: greater efficiency and lower costs through more and better "tools"—refineries, terminals, pipe lines, drilling rigs, etc.

5. Since 1939 the industry has not only plowed back *every cent of profits* after dividends into enlarged and improved facilities but has *borrowed* additional money as well—all in order to meet the increased demand for petroleum products and to improve efficiency. In the last 10 years Union Oil—in addition to $178,000,000 used for replacement—has spent $80,000,000 on "plant" improvement and expansion.

6. 64% of this came out of profits that were left over during those years after dividends. The rest was borrowed. So oil company profits have a very real bearing on keeping down the cost of gasoline to you. For most profits go right back into improved facilities that mean greater efficiency and lower costs.

UNION OIL COMPANY

OF CALIFORNIA

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This series, sponsored by the people of Union Oil Company, is dedicated to a discussion of how and why American business functions. We hope you'll feel free to send in any suggestions or criticisms you have to offer. Write: The President, Union Oil Company, Union Oil Building, Los Angeles 14, California.