

NEW OIL
from an
OLD FIELD

On Tour

WITH UNION OIL COMPANY OF CALIFORNIA



OCTOBER 1956

On Tour



Volume 18, Number 9
October 1956

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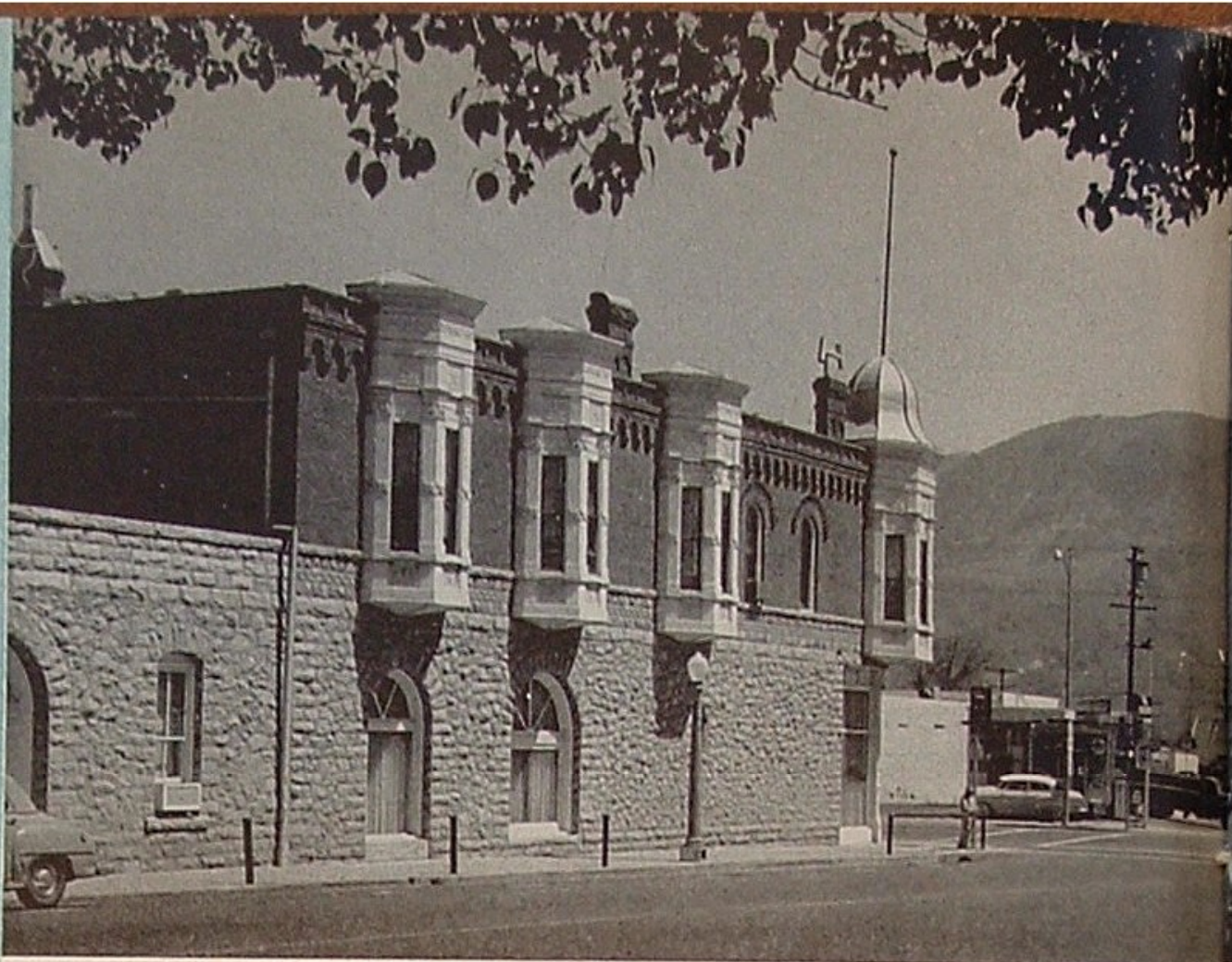
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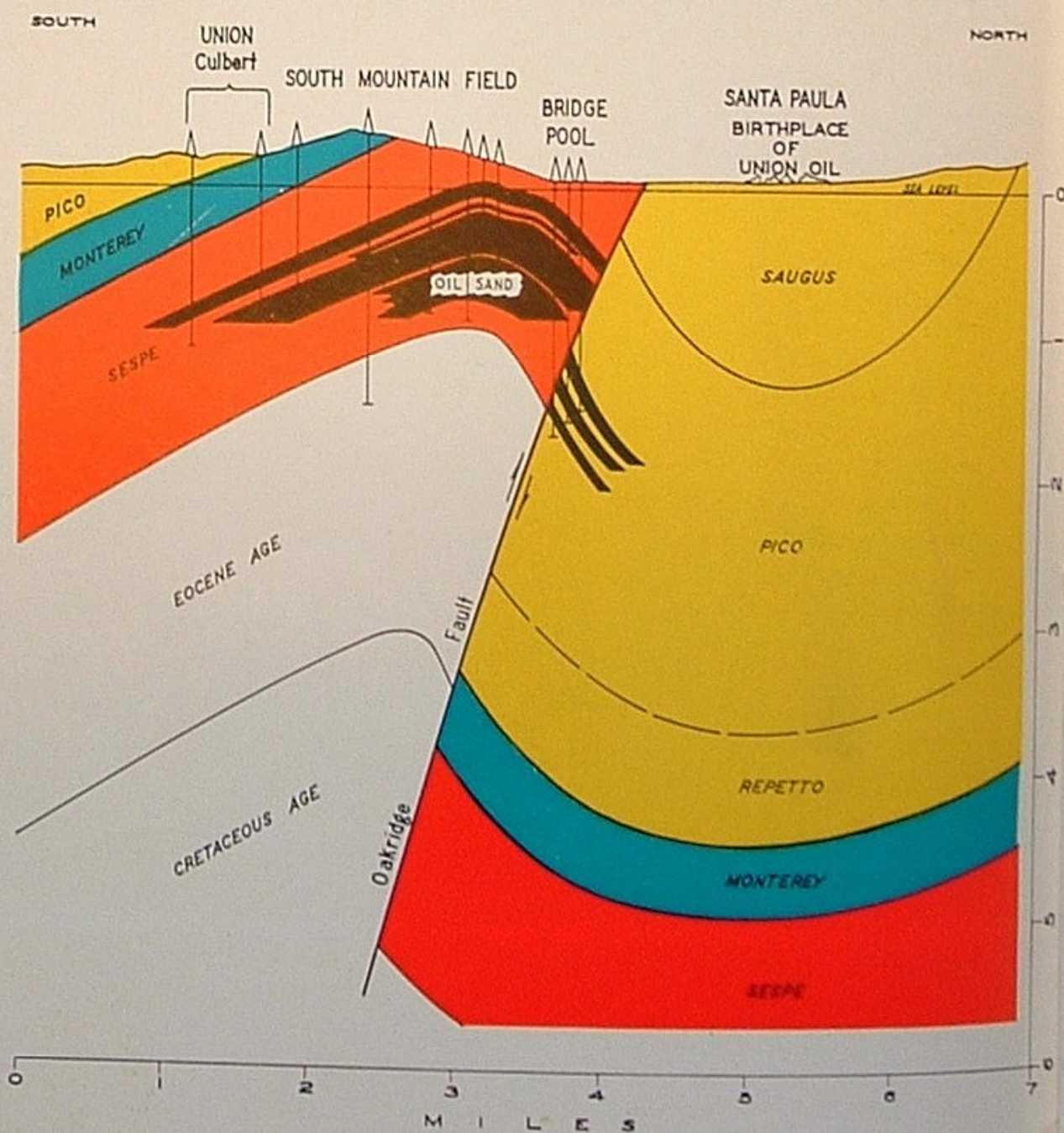
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"ON TOUR", pronounced "on tower," is an oil field expression meaning "on duty." Our magazine by that title is published monthly by Union Oil Company of California for the purposes (1) of keeping Union Oil people informed regarding their Company's operations and progress, and (2) of recognizing and encouraging the fine accomplishments of employee groups and individuals. We invite communications from our employee readers, whose thoughts, interests and opinions are carefully weighed in determining editorial policy. Address correspondence to ON TOUR, Union Oil Building, 617 West Seventh Street, Los Angeles 17, Calif.

T. D. Collett, Editor
R. C. Hogen, Assistant Editor



Above, the building where Union Oil Company was founded in 1890 looks toward Santa Paula's South Mountain, background, an old oil field with new ambitions. Below, a cross-sectional drawing shows the 4½-mile displacement of rock layers here along the Oakridge Fault and indicates how new oil deposits are being found under the fault.



ON TOUR



NEW OIL from an OLD FIELD

**BRIDGE POOL DISCOVERY IS PRACTICALLY
AT THE DOORSTEP OF UNION'S BIRTHPLACE**

JUST 66 years ago this month—on October 17, 1890—Union Oil Company of California was founded. The event took place in the town of Santa Paula. And the building where owners of Hardison & Stewart Oil Company, Mission Transfer Company, Sespe Oil Company and Torrey Canyon Oil Company met to *form their union* still stands. Part of its lower floor houses the California Oil Museum. The remainder of the building serves adequately as office headquarters for our Ventura Division.

It is not the well preserved old building (seen at left of the accompanying photograph) that inspires this report. Rather, we call your attention to the much higher and older monument seen beyond it. This is South Mountain—by no means the most spectacular mountain in California, but certainly one of the most interesting and productive.

Geologists tell us that South Mountain and its neighbors, marking the south wall of Santa Clara River Valley, are an *upthrust*. Far back in geologic time, tremendous subterranean forces caused the earth's crust here to crack for a distance of some 30 miles, or from Torrey Canyon westwardly to the Pacific Ocean. Rock layers south of the crack, called a *fault*, were tilted and thrust up, forming the mountain range. Layers north of the fault slipped downward as much as 4½ miles below their former position. In other words, Sespe rock formations now buried some four miles below sea level under the town of Santa Paula are exposed, on the fault's opposite side, hundreds of feet above sea level.

Geologist Dick Stewart shows you a Torrey Canyon branch of the Oakridge Fault—the vertical dark streak of pulverized rock he is reaching across. Rock layers on opposite sides of the crack have slipped miles apart.



This astounding displacement of rock layers was certainly accompanied by earthquakes of unimaginable intensity. As evidence, the fault is marked by a vertical layer of powdered rock and clay, darkened by exposure to high temperatures. The powdered filling is impervious to oil migration and can act as a dam or seal where it abuts against an oil-bearing rock layer.

Geologists refer to this immense crack in the earth's crust as the Oakridge Fault. It roughly parallels the Santa Clara for 30 miles. Buried under centuries of silt and loam accumulation, it is generally visible only to the mind's-eye of the trained geologist.

Early oil men first were attracted to Santa Paula by oil seeps in the canyons and mountains some distance north of Santa Clara River. Not until around 1915, when the Oakridge Oil Company made its south-of-the-river discovery, did they show serious interest in South Mountain. Probably the mountain seemed too pleasant and accessible to be an oil producer.

But by 1917, Union Oil had spudded Crane No. 1 with cable tools in the South Mountain Field. The well

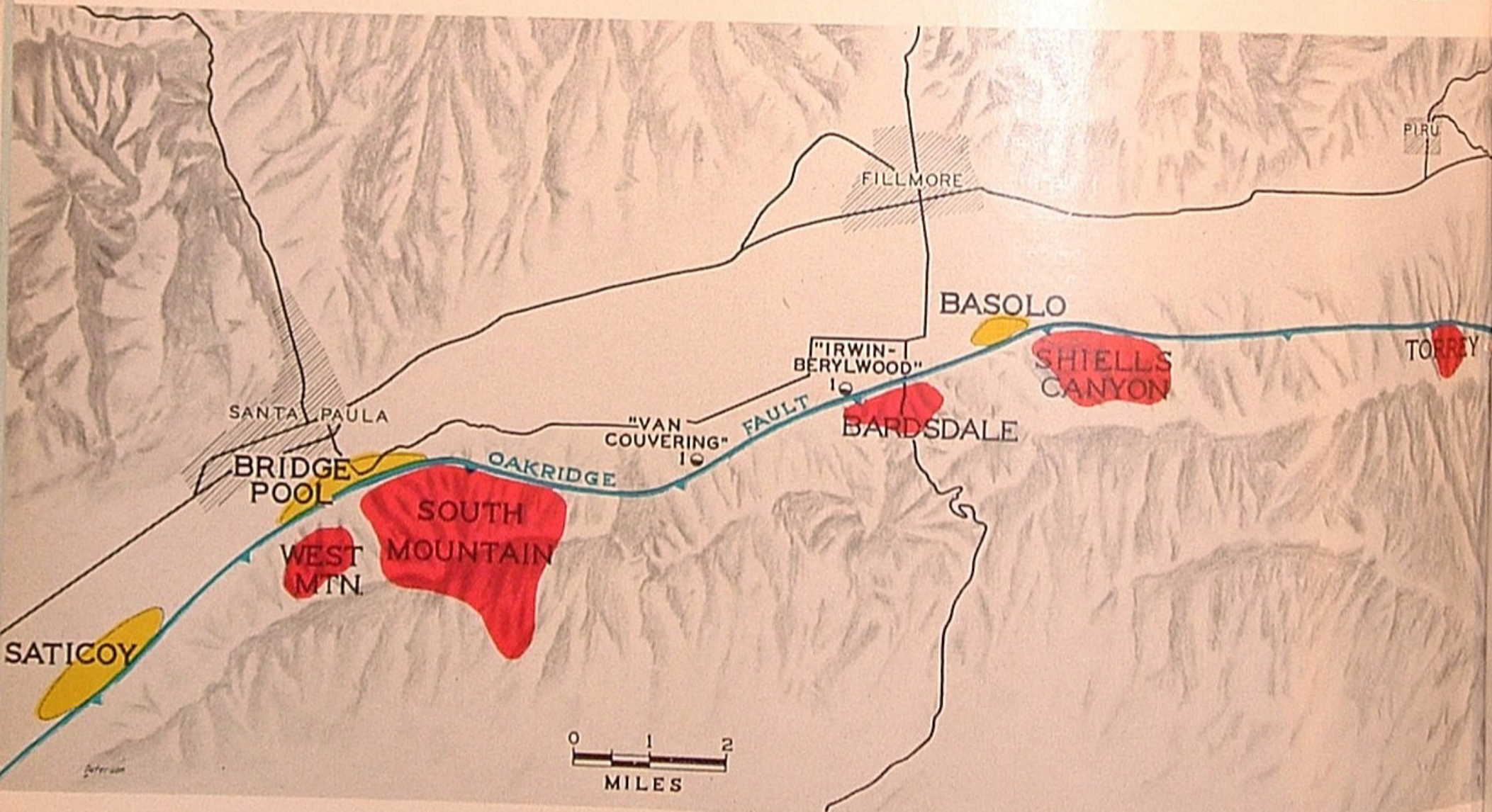
was completed at 3,831 feet in 1919, flowed intermittently while drilling, and to date has produced one-half million barrels of crude. The Crane Lease, comprising 40 acres and six wells, has produced nearly two million barrels.

However, South Mountain was never a spectacular field. Drilling proved to be difficult, costly and none too profitable. Interest waned after 1929, and from then until 1944 only 11 wells were drilled in the field. South Mountain, with 93 producing wells, had yielded 24 million barrels of oil by 1944, and was thought to be approaching exhaustion as an oil reservoir.

When dealing with the faults and stratigraphic complexities of such an area, though, anything can happen. Somebody with gambling instinct, or a new geological theory, or merely a strong hunch will penetrate a new oil producing horizon. Then the drilling boom is started all over again.

Such was the destiny of South Mountain. In 1944 the drilling of F. E. Fairfield-South Mountain No. 1 started a new series of exploratory wells up to the moun-

Drawn by Draftsman A. K. Peterson



tain's summit and down its south flank. Here the new play spread to Union Oil's 322-acre Harley Culbert Lease, which, from 31 wells drilled since 1953, is currently producing 2,200 barrels per day and has already grossed two million barrels. Thus South Mountain's total petroleum importance grew to 385 wells, a daily production of 12,000 barrels, and a total yield to date of 59 million barrels.

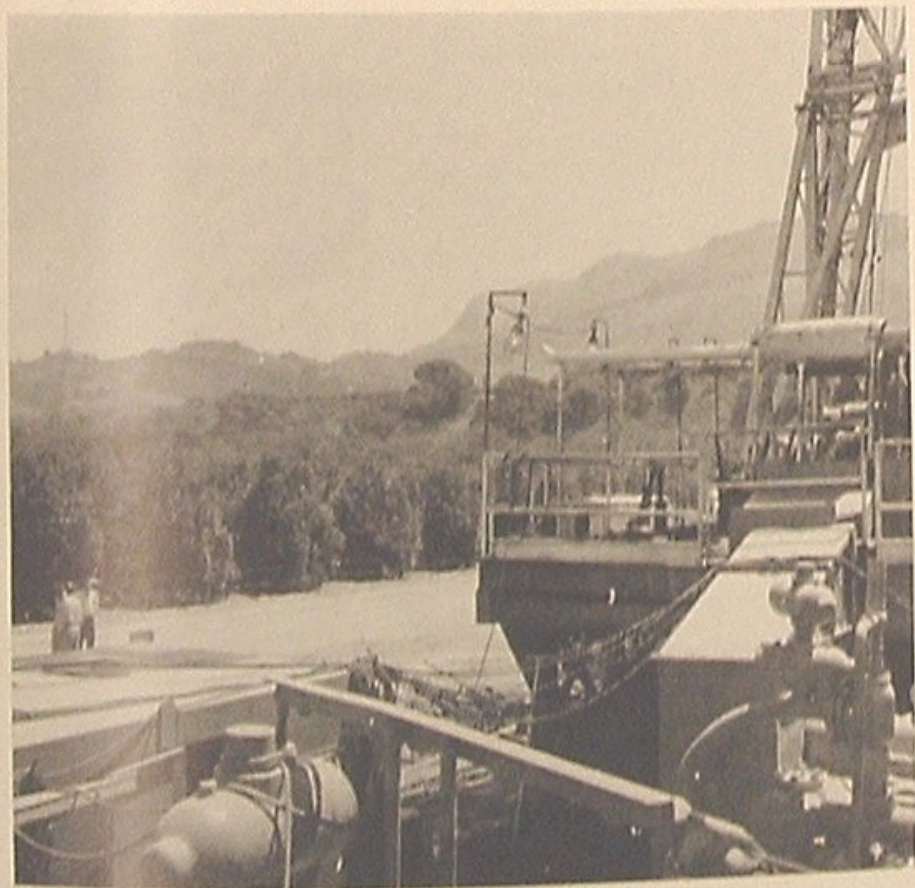
Remember that all of this oil occurred on the south side of the Oakridge Fault from what oil men refer to as the Sespe formation. Meanwhile geologists were wondering about the fault's north side. They knew the impervious wall of powdered rock inclines a little toward the south as it dips downward. Perhaps by starting a well on the south side and penetrating Oakridge Fault at just the right depth a *wildcat* might find oil trapped under or north of the fault.

Twelve dry holes later, this theory had all but overstayed its welcome. But in 1952, Harry Long, an independent *wildcatter*, drilled the 13th hole through Oak-

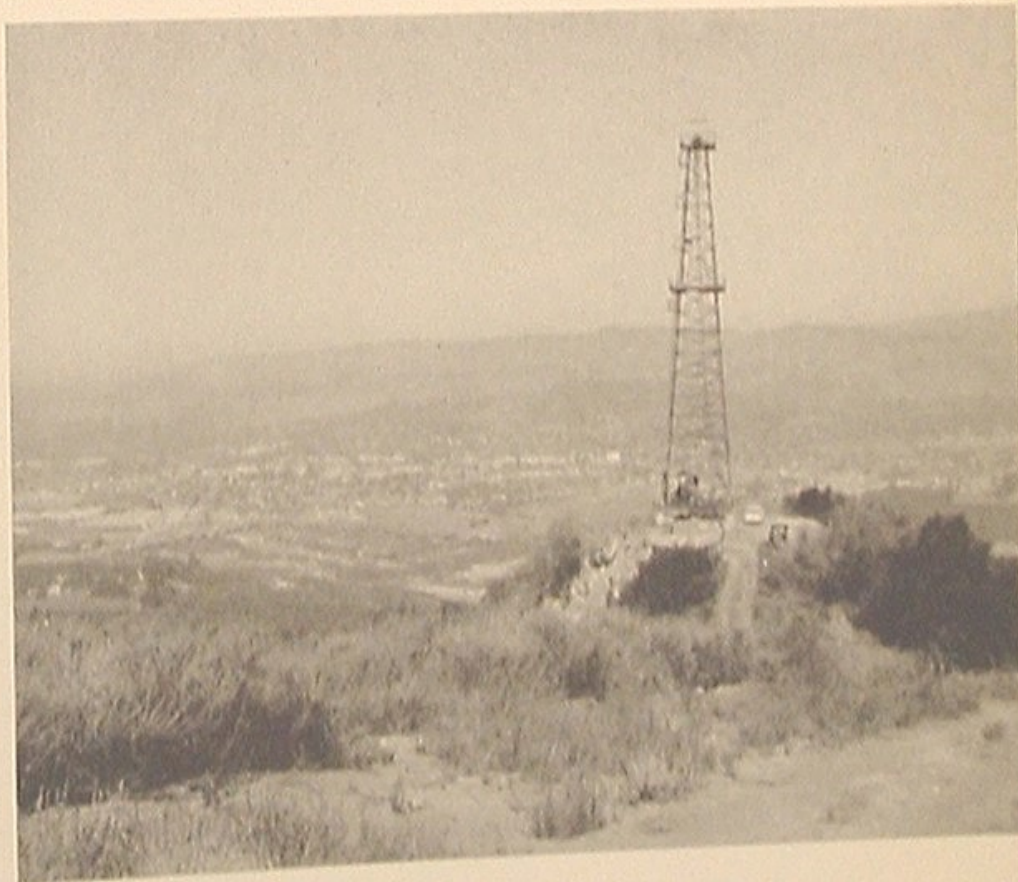
ridge Fault and struck the Basolo Pool. This discovery started a feverish scramble for land along the entire fault. Union and The Texas Company, both long active in the area, were especially interested in leases immediately northwest of the South Mountain Field. In the competitive leasing, neither operator acquired a dominant position. Each obtained drilling rights on about an equal acreage of land, their parcels alternating in a checkerboard pattern typical of many oil land plays. Neither seemed in a hurry to drill the first expensive wildcat well, but preferred to let the other make a conclusive test.

The stalemate ended in April 1955, when Shell found commercial production under the Oakridge Fault four miles west of Santa Paula, at Saticoy. Texas and Union got together—pooled their land to form a 560-acre block of leases—named The Texas Company as operator—and agreed to split the expenses and revenue of a joint drilling program.

In December 1955, Texas-Union-Richardson No. 1



From one of our new wells being drilled in the Bridge Pool, above, can be seen the derricks of several older producers. The two fields are producing from opposite sides of the Oakridge Fault, whose entire length is



being explored (see drawing opposite page). Meanwhile, Union Oil's old Caldwell-Snyder No. 2, above, continues pumping a few barrels a day from the Sespe formation, exemplifying how fields produce to the last valuable drop.

drilled down through the Sespe formation, penetrated the Oakridge Fault, and found 300 feet of excellent looking Pliocene oil sands on the under or north side. However, production from this discovery well declined rapidly to a disappointing 40 barrels per day by May 1956. In the meantime, two confirmation wells were completed nearby. Drilled to around 3,000 feet, these came in flowing at a rate of nearly 1,000 barrels per day each.

The lid was off the Bridge Pool, so named because of its nearness to a bridge crossing the Santa Clara River from Santa Paula to South Mountain. Four more good completions followed in quick succession, bringing the Bridge Pool's daily production to a current 3,400 barrels of high-quality oil. Two additional wells are being drilled here and others are in the planning stage.

These recent successes have skyrocketed land prices along the entire Oakridge Fault. Fortunately, Union Oil people were among the first to envision oil production from this source and were early in acquiring a good land position. In addition to our joint activity with

Texas in the Bridge Pool, we are drilling Irwin Berylwood No. 1 at Bardsdale and Van Couvering No. 1 further west—two wildcat wells aiming for new oil production beneath the fault.

So, within a stone's throw of an old field—from under a valley floor that oil men have been traversing for nearly a century—and almost at the doorstep of Union Oil's birthplace—one of the most promising of California's oil discoveries is being made.

But the Bridge Pool is more than a new discovery. It is evidence that vast petroleum resources await only the patience, ingenuity and determination of men qualified to find them. It reflects the important role being played by venturesome independent wildcatters such as Harry Long. It is an example of how two or more competing oil companies will cooperate voluntarily in exploring a potential pool or in operating it according to the most conservative practices. And it confirms a Union Oil contention of long standing—that free competition, rather than obstructive legislation, is this country's best hope of getting new oil out of old fields.

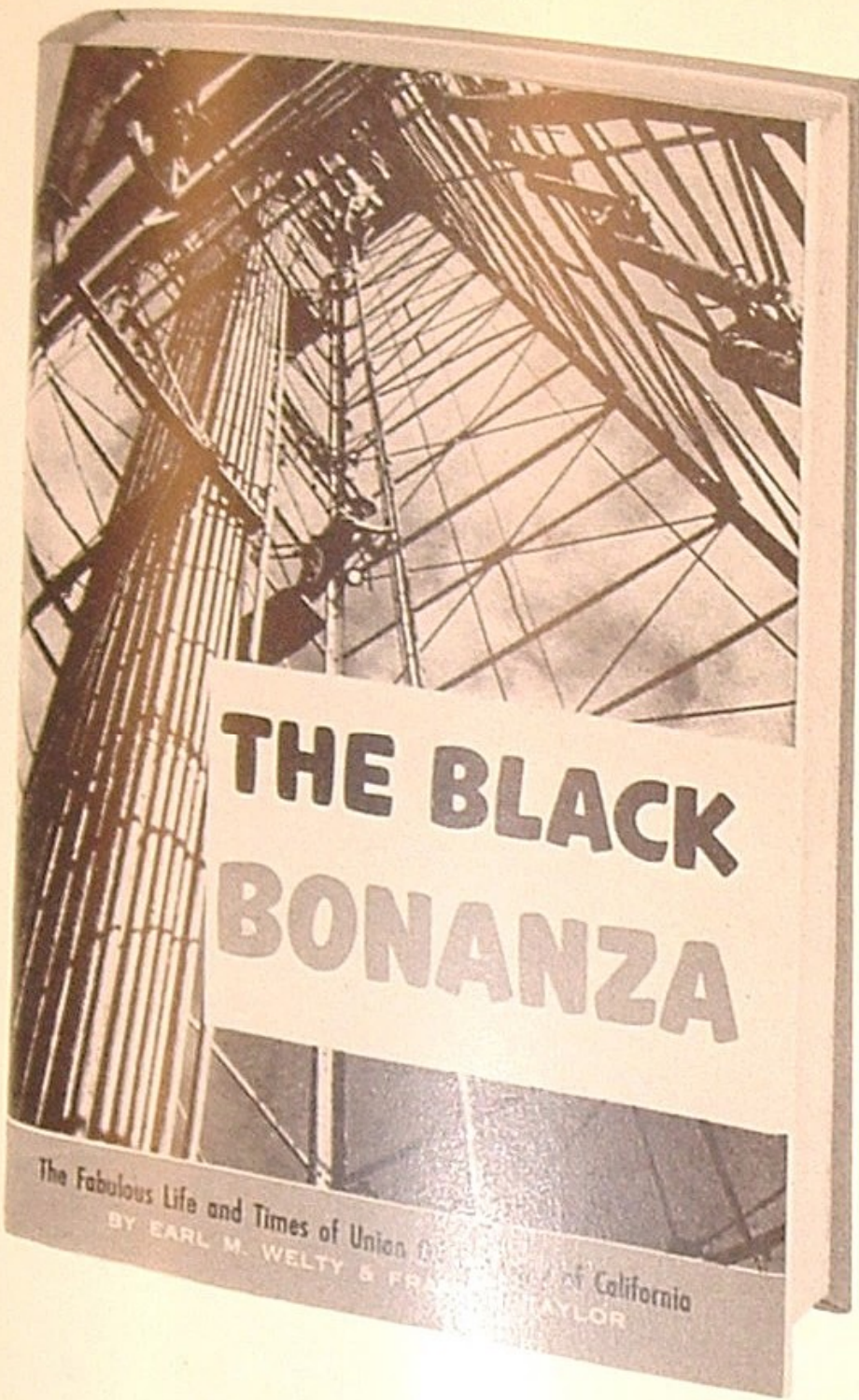
From left, Geologists Harold Lian, Richard Stewart and Ed Hall study their three-dimensional model of South Mountain Field—knowledge acquired through many years of field mapping, well studies and office correlation.

Discussing a Bridge Pool land map are, l-r, Petroleum Engineer Russ Wade, Division Superintendent Clarence Froome, District Superintendent Ben Blanchard, Petroleum Engineer W. O. Plant and Drilling Foreman Robert Green.

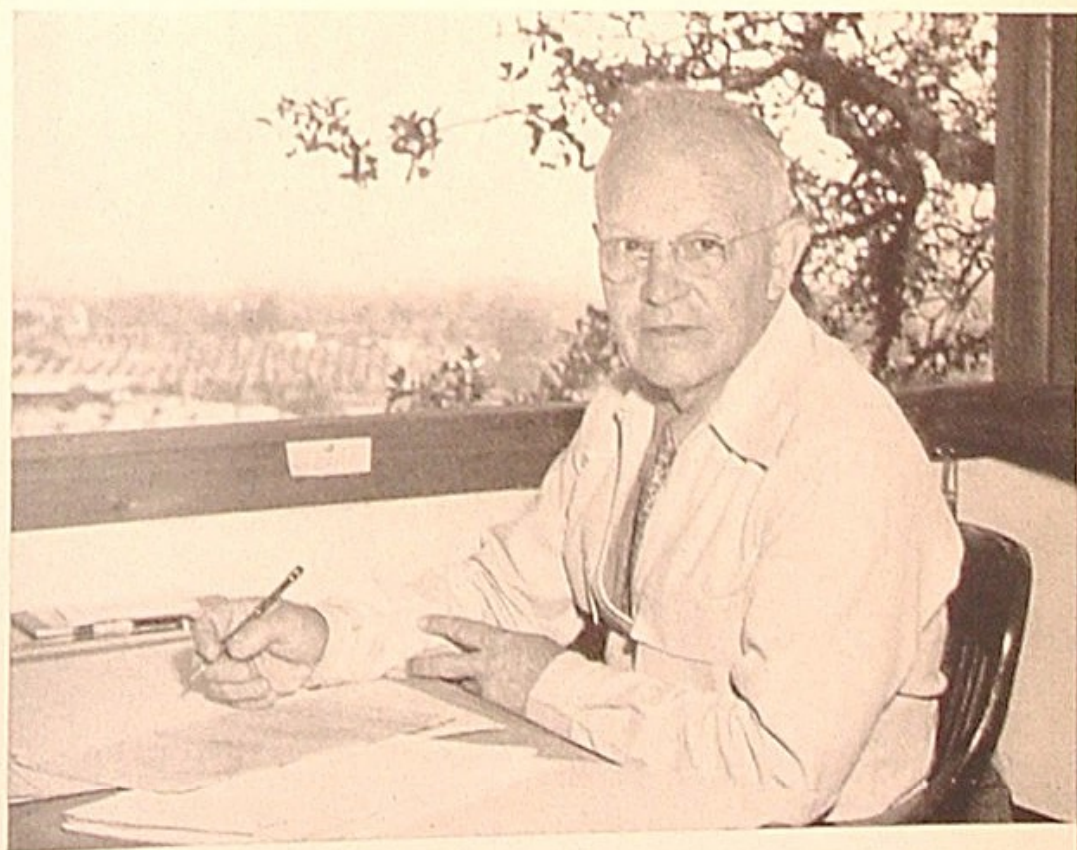


SECOND EDITION OF
"THE BLACK BONANZA"

IS AVAILABLE TO EMPLOYEES
AT LESS THAN PRINTING COST



Authors of "The Black Bonanza" are Union Oiler Earl M. Welty, above, seen correcting proofs with his secretary, Anna Cooley, and Frank J. Taylor, below, author of several books and a contributor to many national magazines.



If at first you succeed, try again. That may or may not be the credo of Authors Earl M. Welty and Frank J. Taylor. At any rate, their book "The Black Bonanza," which was sold out in its first edition, has been completely re-styled and re-written and is coming off the press in an up-to-date second edition.

"The Black Bonanza" is a factual narrative describing the founding and development of Union Oil Company. In its re-written version, 300 pages of text and 64 pages of pictures, it presents Company history in chronological order. Events of the past six years, including the most recent changes in executive management, have been added, bringing the book's span practically up to its scheduled publication date of October 17, 1956.

Bookstores throughout the United States will sell "The Black Bonanza" at \$6 a copy. However, Union Oil employees are being given a special price of \$1 a copy, as a means of encouraging the widest possible home readership. Ordering instructions were mailed with September 26th pay checks. Or you may contact your payroll office for an order form.



Beautiful green reeds and grasses are a deceptive covering for the inhospitable marshes of Louisiana. To get at the treasures of petroleum locked deep underground, oil men depend on the power and buoyancy of an ingenious machine—the marsh buggy.

Louisiana Buggy Ride

MARSH BUGGIES ARE THE OIL MAN'S RESPONSE TO "IMPASSABLE" MARSHES OF THE GULF COAST



Geophysicist Ben Elms, left, and Party Chief Bill Ard lead the way upstream to a Union Oil seismic operation. The "lugger" (below) drops anchor on a Bayou des Allemands bank "ankle-deep to a Cajun but deep enough to drown a Californian."



AN invitation from Ben Elms, Union Oil geophysicist, to watch a seismic crew operate in the Louisiana marshes is more than tempting. So, with Ben at the wheel, you hop into a Company car and start west. Heavy New Orleans traffic thins out gradually toward Cajun Country, but even the rural highways breathe a steady *whoosh-whoosh* of passing cars and trucks. The Cajun parishes of Louisiana, nearly isolated a few years ago, now are being woven into the South's industrial fabric—largely through petroleum activity.

Nowhere in the Gulf Coast strip are you ever more than a mile or two from primitive marsh and swamp. These vast areas of natural vegetation, standing in shallow seas of water, dominate the map as they have done for centuries. Only a small portion of the marshes and swamps has been diked, drained and tilled. Most are too soggy for grazing land. They teem with wild life but bear hardly a trace of civilization. Oil men have been attracted to the inhospitable wilds quite as much by the cheapness and availability of the acreage as by the hope of discovering oil and gas trapped around deeply buried salt plugs.

Due to your inexperience in eating a crayfish lunch, a Cajun delicacy at this season of the year, you arrive at Bayou des Allemands (Bayou of the Germans) a few minutes late. Your boat is already a half-mile upstream and quite deaf to Ben's West Texas brand of vocal mayhem. But the pilot finally catches sight of "creatures taller than alligators" running up and down the banks, so puts back to port.

In a few minutes you're shaking hands with Bill Ard, party chief for United Geophysical. He explains apologetically that the boat has to be kept on a pretty close time schedule. Then, motioning toward a flat landscape of green vegetation and water, asks, "Ever see anything like this in California?"

Well, you reply, Northern California's rice fields during the growing season have a similar appearance, and Hollywood could use the Sacramento River as a good *stand-in* for Bayou des Allemands.

"Yeah, but I'll bet California doesn't have any Cajun *jug-hustlers*," Bill continues.

Several of the Cajun boat passengers grin bashfully. All are young men—healthy and bronzed from a life spent out of doors—keenly observant of everything that's going on—but talkative neither in English nor the Acadian French tongue still preserved in the "Evangeline" parishes. Ben Elms swears these boys can ski dry-footed across a lake on two straws—that mosquitoes avoid 'em like the plague—and, when a poisonous reptile bites 'em, everybody feels sorry for the snake. There's an element of truth even in a Texan's exaggeration.

Several miles upstream the boat, called a *lugger*, turns toward a tiny cove in the bayou's shoreline. As it halts among the reeds, no one moves to disembark. There's no wharf, rock or even a clod of earth to stand on. The bayou simply grows shallow enough to support a broad acreage of marsh grass. Ben defines the marsh water as ankle-deep to a Cajun or deep enough to drown a Californian.

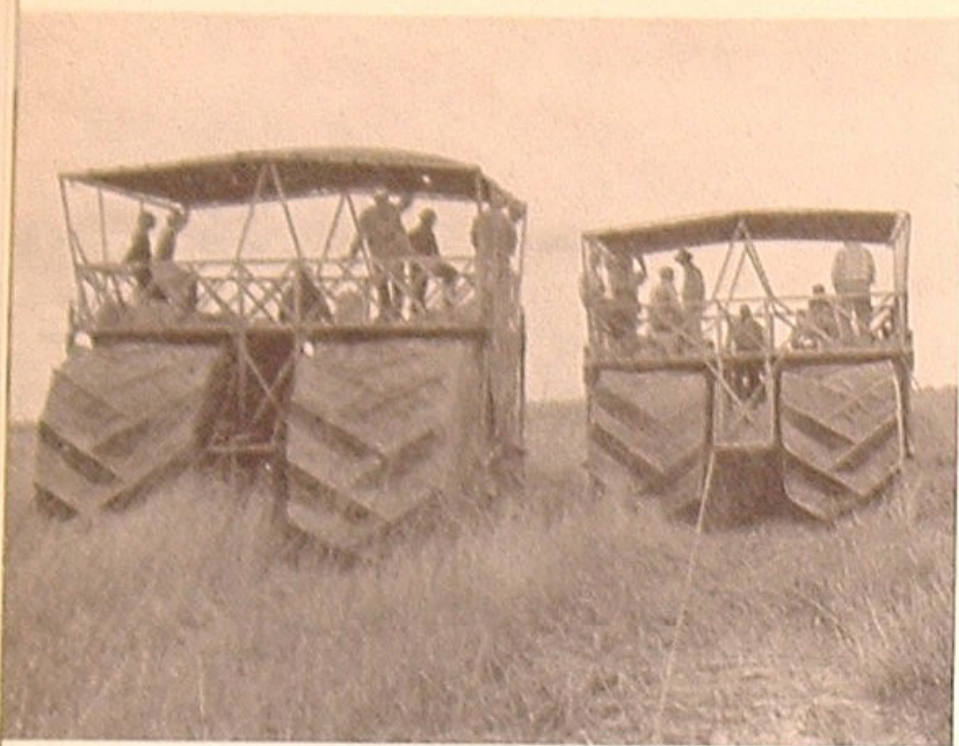
But soon across the grass-topped plain ambles a machine of impossible design. It has four immense wheels with treads rugged enough to stall most other vehicles. Two automobile motors provide the power, each chain-gearingly separately to a pair of wheels on either side. There is no steering wheel; the operator guides it by altering the speed of one motor or the other. Instead of turning the machine around, he simply seats himself facing in the opposite direction and puts the vehicle in reverse gear.

They call it a *marsh buggy* in Louisiana. Designed especially for oil industry use, it has been perfected into a valuable exploration tool. At a top speed of around 20 miles an hour it conquers the marsh, oftentimes carrying a score of men on deck and dragging several pontoon conveyors behind. Contemptuous of mud or water, it boldly plunges into ooze or quicksand and will even float on its hollow wheels through navigable streams.

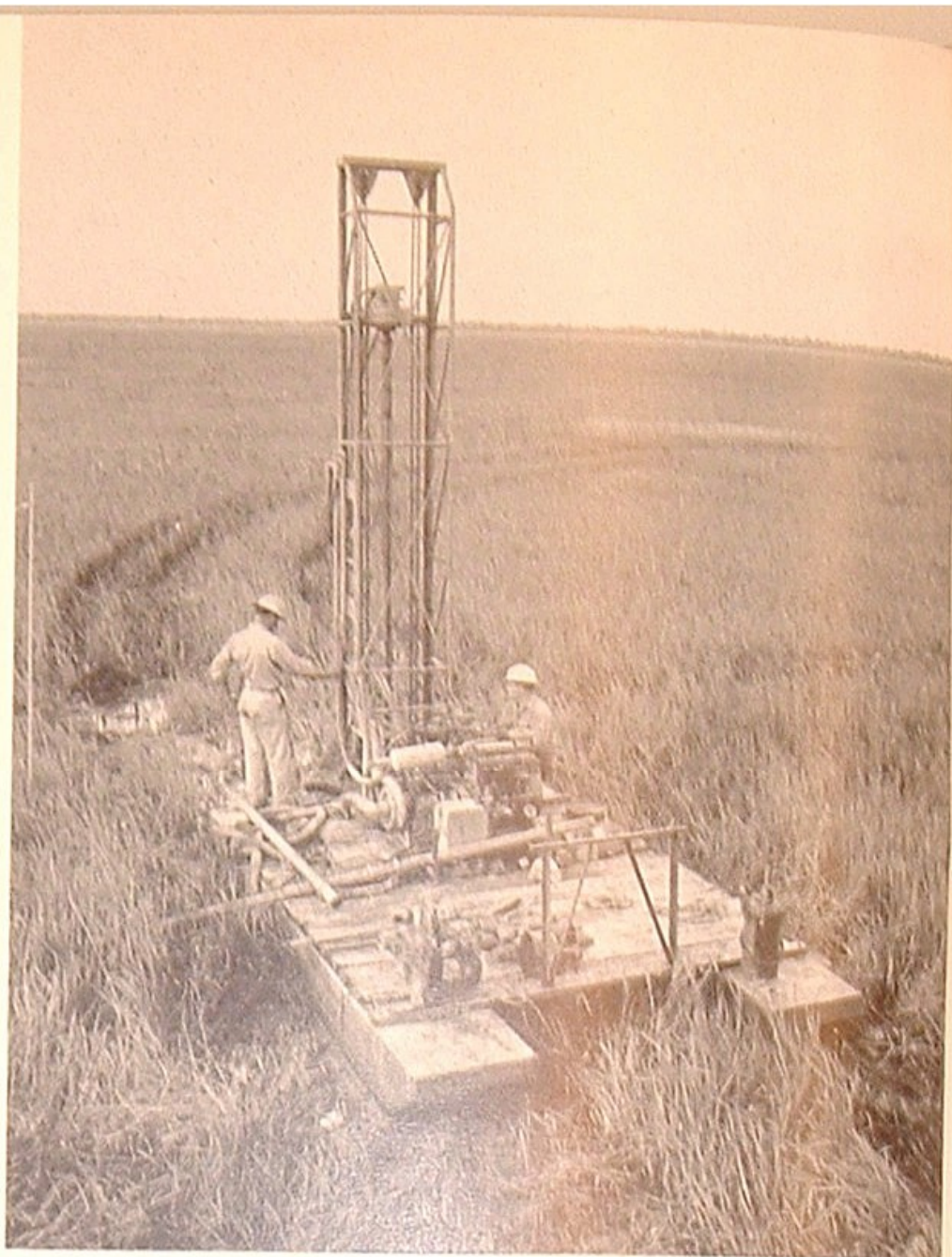
It is one of these machines that rolls up to the *lugger* on Bayou des Allemands and invites you aboard for a Louisiana buggy ride. As for what is seen during the ride, please turn to the following two pages:

"Contemptuous of mud or water, the marsh buggy boldly plunges into ooze or quicksand and will even float on its hollow wheels through navigable streams."





Two or more marsh buggies are used to transport a seismic crew and their equipment through the boggy terrain. At right, the seismic party's drill, mounted on pontoons, has been towed into drilling position for a 40-foot shot hole.



At left, two Cajuns are ramming an explosive charge into one of the shot holes. Below, a cable-jug-boat, towed by marsh buggy, pays out several hundred yards of insulated cable equipped at 120-foot intervals with geophones (jugs). When the charge is exploded, jugs will change earth vibrations to electrical pulses.





Being towed into position for the next shot is the recording "dog house," also on pontoons. Enroute the "jug hustlers" will pay out half of their cable.



Inside the "dog house," Observer L. D. Driskell checks his camera and amplifiers preparatory to recording the reflected shock waves on a seisogram.

Following an explosion that is more felt than heard, a geyser shoots from the hole. The man-made earthquake

attempts to locate subterranean structures that are favorable for the accumulation of oil—not the oil itself.





“Do Thou Likewise”

TO a lawyer who asked, “What shall I do to inherit eternal life?” the Master answered in parable, saying:

A certain man went down from Jerusalem to Jericho, and fell among thieves, which stripped him of his raiment, and wounded him, and departed, leaving him half dead.

And by chance there came down a certain priest that way: and when he saw him, he passed by on the other side.

And likewise a Levite, when he was at the place, came and looked on him, and passed by on the other side.

But a certain Samaritan as he journeyed, came where he was; and when he saw him, he had compassion on him.

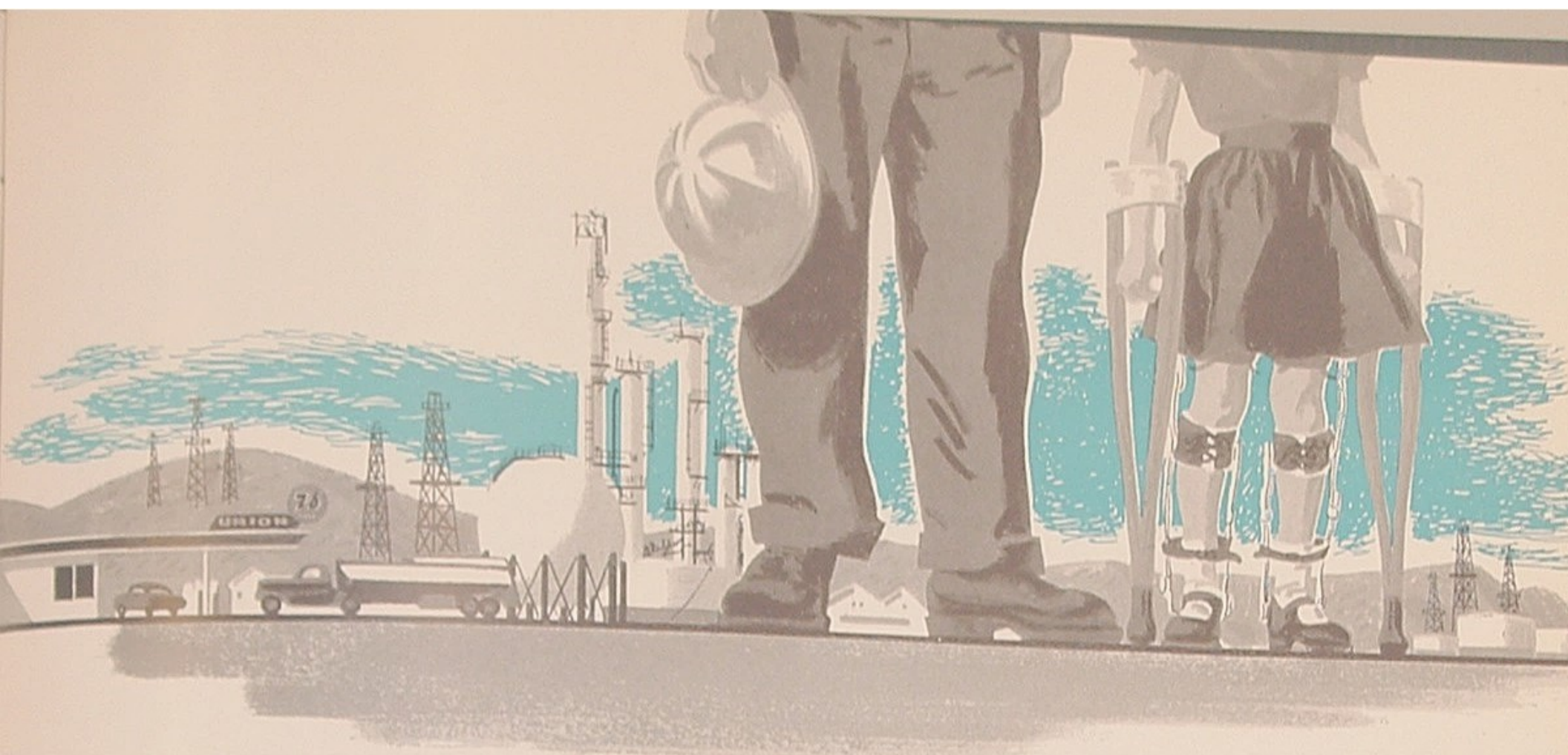
And went to him, and bound up his wounds, pouring in oil and wine, and set him on his own beast, and brought him to an inn, and took care of him.

And on the morrow when he departed, he took up two pence and gave them to the host, and said unto him, Take care of him; and whatsoever thou spendest more, when I come again, I will repay thee.

Which now of these three, thinkest thou, was neighbour unto him that fell among the thieves?

Perhaps no story has had a nobler impact upon civilization. Christian apostles and converts carried it to the heathen nations, creating new concepts of human behavior. Millions listened to the story and received the warm inner urge to “do likewise.” A code of conduct once limited to families and close neighbors expanded to embrace townsmen and countrymen. To an increasing degree, cruelty, bravado and callous indifference to misery were supplanted by sympathy and compassion as attributes of the good citizen. Rulers began to think in terms of serving instead of merely subjugating and taxing their people. Chivalry even took its place on the field of battle, offering aid instead of a *coup de grace* to the wounded—quarter rather than torture and slavery to the captured.

The Christian code spread to many nations. And the Master’s promise of eternal life was at least heightened by the improved flavor of mortal life. Nations and the people within them prospered and lived more joyously in almost direct proportion to their adoption and practice of Christian principles.



In America—melting pot of all creeds, races and nationalities—the example of the good man from Samaria has been followed as nowhere else in the world:

Here no man is left to die by the wayside; every city, neighborhood and individual finds some means of quickly providing for the injured and the ill.

No hungry person needs to go unfed; there are countless missions, churches, charitable agencies or governmental establishments willing to provide for the destitute.

No blind or deaf or maimed person need beg. There are hundreds of institutions for needy crippled children, the aged, the mentally ill, the alcoholics, the narcotics addicts, and practically all other unfortunate members of society.

Lost persons are restored to their families. Stranded families are helped to become self-sustaining. Underprivileged children are given better environments and educational opportunities. In times of disaster, whole communities are rescued and rehabilitated. Military men and women are given a "home away from home." In fact, if we examine our lives closely, hardly any American goes through a lifetime without having somehow benefited from public compassion.

Yes, there are millions of Good Samaritans in these United States—people of all interests and vocations who carry on the great Christian tradition by giving of their time and means to those in want or those less favored.

And because his number is legion, he who gives most is the American workingman.

Union Oil people have been outstanding "good neighbours" since the Company's inception. The founders gave liberally to charitable and religious causes even when their success was very much in doubt. The Company has always given a generous share of its earnings to the charities of communities where we operate. Year after year, more than a thousand employees in one Union Oil location have received the "A.I.D. Banner" for surpassing the pledges suggested by Associated In-Group Donors. Employees in the Bay area, Southern California, Great Northwest and numerous other locations have been cited repeatedly for their generosity.

In the fund-raising campaigns of 1956, let us carry this merciful gesture to new heights. Please support AID (Associated In-Group Donors) if there is a chapter in your community; it has proved itself to be the most economical and least troublesome means of getting your donated dollars to deserving beneficiaries. Their 4.7% cost of operation in Southern California is the lowest in the nation. Nearly as efficient and effective are the United Crusade in the Bay Area and the United Good Neighbor Fund in Seattle. These, the Community Chest, the American Red Cross, the March of Dimes, the Cancer Fund and practically all other fund-raising campaigns sanctioned by your community are our Christian obligation and opportunity.



INDUSTRIAL SUMMARY

● INDUSTRIAL RELATIONS

July 1, 1956 marked the second anniversary of the Employees Incentive Plan. The trustee now holds 90,299 shares of Union Oil stock, which represents 1.173% of the total shares outstanding. During the Plan's two years of operation, employees have contributed \$3,057,015, and the Company has contributed \$2,064,637. Cash dividends have totaled \$168,886, plus 5,923.8 shares as a stock dividend. The average price paid for shares purchased during this period was \$54.95.

These facts emphasize how rapidly the Incentive Plan is accumulating part-ownership of the Company for its members. Each of us should continue to find ways to increase our efficiency and reduce costs. Even small savings, multiplied by the total number of employees, can

make a significant contribution to your Company's earnings and success.

from W. C. Stevenson

● EXPLORATION

Union Oil Company's recent exploration in Latin America dates back to the acquisition of our interests in Paraguay in 1943. Since that time we have been actively interested in Paraguay, Peru, Guatemala, Cuba, Panama and Costa Rica. Present indications of production in our Cocolos No. 2 well in Costa Rica are the most encouraging we have had from this exploratory drilling. Since our first well was spudded in Paraguay, we have drilled a total of 17 wildcat wells. Five of these were drilled in Paraguay and seven were drilled in Peru. Our Cocolos No. 2 well was the fifth wildcat well to be drilled in Costa Rica. According to drill stem tests recently made on this discovery well, the past succession of dry holes has been broken. Hopefully we can look forward to additional successfully completed producers.

from Sam Grinsfelder

● PRODUCTION

Union Oil Company in conjunction with Dominguez Oil Fields Company has started another waterflood project in the Dominguez Oil Field, Los Angeles County. The new waterflood will be confined to the Third and Fourth Zones of the West Central Fault Block, entirely on the Callender property.

It should be explained that oil producing formations in the Dominguez Field are divided into four major fault blocks, namely, the East, East Central, West Central and West. Each fault block is subdivided by numerous smaller faults, with each fault block containing several producing zones termed the First, Second, Third, Fourth, etc. Operation of the latest project will be conducted under a definite plan, with six injection wells and 19 producing wells being used initially. Eventually during the estimated eight-year life of the project, a total of 16 wells will be used for injection and 23 as producers.

At the new Plaza Shopping Center in Seattle, Resident Manager G. C. Alexander, left, discusses Unolox Roofing with Reseller Palmer G. Lewis, Contractor F. R. McAbee and Robert D. Peterson. The airblown asphalt, manufactured in new facilities at our Edmonds Refinery, was applied to the Shopping Center's lift-slab concrete roof, first roof of its kind ever constructed in Seattle area.

from J. W. White



This peripheral type waterflood, made possible by voluntary agreement between operators, is another example of the practice of true conservation.

from Dudley Tower

• RESEARCH

Transfer of the Design Division from Los Angeles Refinery to the Research Center is approaching completion.

Our delayed coker pilot plant, which makes available small samples of petroleum coke and distillates from various crude oils, is back in operation.

A paper on "Unifining of Catalytic Cracker Feeds" was presented by G. W. Hendricks in September at a meeting of the American Chemical Society in Atlantic City. Co-authors of the paper were Messrs. Attane, Hendricks, Huffman, Inwood, Kay and Stiles.

Unifining agreements have been completed with Premier Oil Refining Company of Texas and Sun tide Refining Company.

Oil shale mining and crushing operations are now in full swing at Parachute Creek, Colorado, and the stock pile of ore for retorting is growing daily.

from Fred L. Hartley

• MANUFACTURING

Coke produced at the Oleum Refinery Coking Unit is removed from the coke drum by jets of water under high pressure. A new replacement water pump recently installed here develops 1,650 pounds per square inch water pressure, or 300 pounds higher than the old pump, which not only speeds up the coke removal but makes possible the production of harder coke.

The manufacture of Triton-type oil at Oleum Refinery during August 1956 was the highest on record.

Recently a customer's barge damaged the Oleum wharf trestle, breaking several concrete piles and pipeline supports. Although several pipelines were badly bent, no leakage of oil occurred, due primarily to the use of all-welded steel piping. The concrete piling and welded steel pipelines of this modern wharf prevented more serious damage and a bad oil spill into bay waters.

from J. W. Towler

• TREASURY-CREDIT

Employees become eligible for a quarterly Company credit card on completion of three months of accumulated service. After one year of satisfactory paying record, an employee is eligible for an annual credit card. Extra copies of both quarterly and annual cards, convenient in multiple-driver families, are available on request.

Applications for the quarterly card are obtained through your supervisor, who approves and relays it to the credit office in your area. The account is established in your name without the usual credit investigation. Annual cards are issued, after one year, on making your request to the credit office.

Union Oil credit cards offer a number of advantages: They are honored by approximately 4,600 Union Oil Dealers throughout the West for the purchase of quality products and services. They also are honored outside of our marketing area by affiliate companies throughout the United States and Canada. The cards eliminate the need for carrying large amounts of money to buy gasoline and oil on long trips—and afford a convenient record of gasoline taxes and motoring costs.

All employees are invited to join Union Oil's big family of over half-a-million credit card customers. Apply through your supervisor. Payments are due 10 days after receipt of your monthly statement. Cards are automatically renewed to all whose accounts are maintained in satisfactory condition.

from I. J. Hancock

Dual-Fuel Units for diesel locomotives were highlighted at the recent S. A. E. national convention in San Francisco. From left (back row) are W. L. Spencer of Union Oil, J. Edwards and P. V. Garin of Southern Pacific; (front row) E. C. Martin of Nemec Combustion Engineers, A. G. Newell of Southern Pacific, J. L. Broughton of Union Oil and E. Putryae of Southern Pacific. These men have sparked national interest in residual fuel for diesels.



● TRANSPORTATION & DISTRIBUTION

Now under construction is a newly designed motor transport truck and trailer unit whose 8,500-gallon gasoline cargo capacity is 1,000 gallons greater than that of conventional truck and trailer equipment. This increased capacity is obtained principally by the use of lightweight aluminum alloy for the cargo tanks.

Acquisition of rights of way and permits necessary for the 224-mile crude oil pipeline to be built from Junction Pump Station in the San Joaquin Valley to Oleum Refinery will be completed in time to permit the start of construction by December 1. The right-of-way work is being done under supervision of the Company's Properties Administration Department. In order to obtain this continuous route, separate agreements will be required with approximately 350 property owners, together with consent agreements from all lease or mortgage holders of property traversed by the right of way.

from E. L. Hiatt

● MARKETING

A new marketing station has been opened at Greenfield, California with A. B. Taylor and Henry Mocettini as consignees. This location will serve the areas formerly covered by King City and Soledad plants.

Recent expansion and improvement at our Oleum Refinery includes the spacious parking area, lower left of photo, where 400 cars can be accommodated. A new traffic signal on the main highway has greatly lessened the ingress and egress hazards. The former main entrance to the refinery is seen at center of the photo where road bends. The aerial was taken by Merritt Nickerson.

from Clyde Morton



Winners of the second "Trips to Anywhere" drawing were Miss Maxine Scobey of Alameda, Union Oil Dealer Curtis W. Gibson of Berkeley who presented Miss Scobey with the winning ticket, and second-prize winner Donald L. Milligan of Redondo Beach. Miss Scobey is eligible for a two-week, all-expense-paid trip for two anywhere in the world. Messrs. Gibson and Milligan each receive a similar free trip for two anywhere in the West.

A unique attention-getter was recently employed by Union Oil Dealers Lyle L. and Eugene C. Kenney for the opening of their new service station on the Seattle-Tacoma highway. A baby elephant was displayed on the premises and a purchase of 10 gallons of gasoline, oil change or lubrication service carried a free ride on the elephant at Seattle Woodland Park zoo for a child under 12 years of age. These enterprising businessmen sold over 7,700 gallons of gasoline during their two-day formal opening. They estimate that 500 customers returned to take pictures of the animal, and people still stop in to inquire about it.

An all-time high in sales volume was reported by Eastern Continental Territory for the month of August. Increased sales through established distributors, a gain of 15 new distributors, and ever-increasing public acceptance of our motor oils and greases throughout the country were contributing factors.

Union Oil Company has been awarded a military contract for 61 million gallons of jet fuel, valued at \$6,320,000, for delivery out of our Los Angeles, Bakersfield and Cut Bank refineries during the six months' period beginning October 1.

from Roy Linden

● PURCHASING

Over 1,000 people a month visit Home Office Purchasing and at least that many more contact our other Purchasing offices. These visitors come with the purpose of selling our buyers on the merits of their particular commodities or services. They leave with us catalogs and brochures illustrating the usage of their products in the petroleum industry.

The resulting catalog file is available for use by all Company personnel, or we will obtain extra catalogs for departments needing permanent reference information. In many cases Purchasing has supplemented this data with Company experience, and has published reports to assist in departmental operations. The report on Plastic Pipe was brought up to date early this year. Reports on Weed Control, Paints, Tests, Experience of Contractors, Industrial Cleaners and other special projects are available as required. All departments are urged to make full use of these sources of information.

from C. S. Perkins

HERE ARE EIGHT GOOD REASONS WHY WE SHOULD

Vote "No" on Proposition 4

- 1** Proposition 4, inaccurately labeled a "conservation" measure on the California ballot, has little or nothing to do with conservation. Rather, it is an oil control bill that, in operation, will discourage the search for oil in California and eventually cause production efforts to stagnate.
- 2** There is no waste of petroleum resources in California at present, and there never has been, if we fairly measure each era in relation to the technical know-how then developed.
- 3** The "conservation" promises suggested in Proposition 4 are echoes of what is already being achieved without such a law. California now leads the nation percentagewise in the unitization of oil fields, in gas-injection and water-flooding projects, in the prevention of gas-flaring, in efficient exploitation of underground reservoirs, and in new studies aimed at constantly improving production techniques.
- 4** To provide any controls necessary to prevent the waste of petroleum resources, California already has conservation laws and its State Division of Oil and Gas to administer them. The laws are comprehensive at present and are easily amendable through legislative action. The State Division of Oil and Gas, aided by the fact-finding and reporting of top-notch engineers comprising the Conservation Committee of California Oil Producers, is administering the law intelligently.
- 5** Even if Proposition 4 had a "conservation" leg to stand on, it is not the type of bill generally sent to voters as an *initiative* measure. The conservation of oil is a highly technical problem that even the experts have not fully mastered. To complicate it by a law that can be amended only by direct vote of the people would greatly retard or halt progress in the conservation field.
- 6** The passage of Proposition 4 would ultimately reduce employment—by impeding exploration, development, research, free competition and all other dynamic activities that have year after year stimulated increased oil industry employment in this state.
- 7** Any state-wide control of the oil industry would impose delays and restrictions, thereby reducing revenue to California both in taxes and oil royalties.
- 8** Worst of all, Proposition 4 opens wider the gate to needless governmental interference in the free exercise of our energies and our lives.



This is the car of an employee and his wife who carried Union Oil medical insurance but "were sure we'd never

need the insurance." They now advise us against over-complacency toward potential misfortune on or off the road.

THE HARDER WE FALL

The Bigger the Benefits



NEVER a day passes but what many Union Oil people thank their lucky stars for being members of one or more Company benefit programs. And since inauguration of the Employees' Medical Plan, this appreciation has greatly expanded and increased.

As an example of the good being done, here is a quotation from a letter sent to Territory Manager W. I. Martin from A. C. Crooks of Tacoma, Washington.

Mr. and Mrs. A. C. Crooks of Tacoma, Washington are grateful to the extent of some \$12,000 for the comprehensive benefits and insurances offered by Union Oil.

Mr. Crooks and his wife were both seriously injured in an automobile accident on July 10, 1955:

"Like most employees, I had a rather disconnected feeling about this "catastrophe" insurance. Sure, it was good—it wasn't expensive—it would benefit people generally throughout the Company—but we were *sure we'd never need it.*

"Our accident is going to cost about \$12,000. While we have accumulated *a little* over the years, it doesn't take a genius to figure what would have happened to our *little* if we'd been saddled with a \$12,000 bill.

"Also, the Sick Pay program took a terrific load off our minds. And when this salary continuance reached its limit on January 9th, the Disability Benefit Insurance stepped right in to take its place.

"The feeling of relief at the help of this insurance simply can't be expressed on paper; it has to be experienced to be appreciated. Having had the experience and now being on the mend, all I can say is thanks a million to those who are responsible for providing and maintaining such plans."

Another confirmed believer in "catastrophe" insurance is Roger Downing, former resident manager at Bend, Oregon, with two years of Company service.

Mr. Downing was stricken with polio on July 21, 1955. Our Employees' Medical Plan helped him through the first three months of illness to its maximum limit of \$1,000. Then the Insured Medical Plan assumed bills of \$2,565 up to March 31, 1956 and will continue, if necessary, up to a maximum limit of \$5,000. Sick Pay and the Disability Benefit Insurance program have kept Mr. Downing's earnings at approximately their Company salary level.

To visitors at the Portland Rehabilitation Center, where he is receiving treatment, Mr. Downing has said in effect many times that polio, bad as it is, would be infinitely worse without such a comprehensive program of assistance.

Admittedly, these are two extreme examples of what Union Oil people are receiving under the protection of Company benefits. But equally impressive are the following figures. They indicate the number of cases being handled and the total amount distributed to eligible employees, or their beneficiaries, in each category of benefits during a typical year:

	Cases	Amount
Group Insurance (Death)	42	\$532,500
Group Insurance (T. & P. Disability)	15	248,566
Unemployment Compensation Disability	672	99,032
Sick Pay	8,839	706,652
Insured Medical Plan	2,941	256,761
Employees Medical Plan	37,000	459,166

Roger Downing, former resident manager at Bend, Oregon, is recovering from polio at the Portland Rehabilitation Center. He too praises the employees' insurance program.





IN FOCUS



▶ **"ECATRA LTDA"** is the name of a new bus service linking San Jose, Costa Rica with Managua, Nicaragua—cities located 361 miles apart on the new Pan American Highway. At left, Ecatra's Driver Jorge Leon, Jr. and Operations Manager Jorge Leon, Sr. confer with Union Oil Dealer Jorge Montero and Minute Man Angel Sanchez. The Fiat busses are 100% users of "76" products.

from George F. Waller



▶ **L. W. LOGAN** of our Seattle Credit Department is Commanding Officer of Headquarters Company, 313th Logistical Command, Ft. Lawton, Seattle. He is seen attending Army-Reserve summer camp during August.

from J. W. White

▶ **LES LEGACY**, winner of the "Sammy Award" during 1954 in Los Angeles, has now repeated his sales achievements in San Francisco and won the "Victor Trophy." Presenting him with the distinguished salesmanship trophy is President A. W. McMullen, left, of the San Francisco Sales Executives Association.

from Pat Clark



▶ **FIREMEN** of the Los Angeles area continue to find our Los Angeles Refinery fire-training equipment the best available. Witnessing a recent session for "rookies" were (standing in foreground) Chief Floyd Adams, Councilman John S. Gibson, Chiefs Miller, Hibbard and Fowler, and Dr. Linsley of the Los Angeles Receiving Hospital.

from H. F. Zimite





▲ **VIC CHASE**, a heavy hitter in his San Diego sales field, also swings a big bat in the softball world. Playing with the Anderson Furniture Company team, he has helped win a regional championship five out of the last seven years and this year competed in the national tournament at Sacramento.

from Frank Culling

▲ **A COMEBACK**, after seven years out of competition, nearly netted our L. A. Refinery Softball Team the championship. They faltered slightly in the Long Beach Municipal League playoffs. Happy about their plans next year are, l-r beginning at front row, Jim McQuillin, Cotton Hickman, Don Leavenworth, Tom Buckle; Rod Moore, Sherred Hansen, Kenneth Hembree, Joe Trowell; Roy Wills, Kenneth Brock, Stan Stame, Gordon Durham, Jim Coats and Don Ohls.

from H. F. Zirnite

▲ **15 WINS** with only one defeat was the record of our Researchers in wrapping up both the league and playoff titles in the Fullerton City Niteball League. Team members included, l-r beginning front row, Clint Herron, Abe Bullington, Bat Boy Paul Huggins, Bob Pavlovich, Manager Dick Stegemeier; Perry Moore, John Duir, Bill Petty, Art Mays, Bud Heath and Ed Farr. Missing from photo were Wayne Watson, Odell Whitfield, Wendell Schulte, Buck Lasley and Woody Moore.

from Paul K. Doyle



▲ **WINNERS** of the Los Angeles Refinery Fishing Derby for 1956, open to refinery employees and their families, were, from left, Jerry Andrews, his daughter Connie Andrews, Mrs. Don Link, Bob Friess, his father Gene

Friess, and Gail Penfield. Another winner, Charles Morrison, must have been fishing when the picture was taken. All won cash prizes for hooking the largest salt-water and fresh-water catches during the season.

from Irv Caulkins



We're Having a Ball

AT THE LOS ANGELES BREAKFAST
CLUB ON OCTOBER 26TH

from Jo Sanders



Warmin' up for the big Halloween costume ball are (above) Jackie Clark and Joe Johnson of Exploration, and (at left) Izzy Hill of Production and Bill McGookin of Comptrollers. Everybody's invited!

REMEMBER that wonderful dance at the Ambassador last February? Nearly a thousand Union Oil people responded to the Girls' Club invitation and had the time of their lives. Now everybody's asking for more.

Well, mice and men, the plans are laid and nothing's "gang astray." The girls are calling this one "Varieties of 76." It's a Halloween party starting at 9 p.m. on Friday, October 26th. Come in costume if you're really game for an exotic evening. But drop the monkey-wrench and come as you are rather than miss the best Union Oil social event of the century.

To accommodate the expected crowd, we're moving this time to the Los Angeles Breakfast Club at 3201 Los Feliz Boulevard, Glendale, California. The popular Carroll Wax Orchestra will again set the musical tempo. There will be novelty home-talent surprises between dances. Door prizes will be out of this world! The price of admission remains at only \$1.50 a person or two for three bucks. If there's any dough left over, the Girls' Club is donating it to Childrens' Orthopaedic Hospital.

Come on, everybody! Let's swing it!



SERVICE BIRTHDAY AWARDS

OCTOBER 1956

EXPLORATION & PRODUCTION

Kinney, Lloyd J., Whittier	35
Russell, Robert D., Brea	35
Wilson, Warren B., Sansinena	30
Anderson, James R., Ventura	15
Correll, Charles W., Orcutt	15
Mosier, Clarence E., Orcutt	15
Richardson, Harold N., Brea	15
Evans, Marion, Bakersfield	10
Nowak, Ted John, Whittier	10

MARKETING

Elliott, Howard M., Seattle	35
Newberry, James H., Tacoma	35
Hepburn, David R., Long Beach	25
Walker, Kelley, Los Angeles	25
Watson, Albert F., Los Angeles	25
Coffman, Irving O., Sacramento	20
Morrison, Marvin V., San Diego	20
Sheppard, James W., Rosecrans	20
Rossiter, Catherine, Los Angeles	15
Schnittker, George W., Los Angeles	15
Smith, Hulbert, Long Beach	15
Harris, Levi, Portland	10
Wolschlagler, Corona A., Seattle	10

MANUFACTURING

Beaulieu, Pierre S., Wilmington	35
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Tschinkel, Edward S., Wilmington	30
Bello, Donald F., Oleum	15
Jones, Robert D., Wilmington	15
Loftus, Owen J., Oleum	15
Potter, James S., Wilmington	15
Potter, John D., Oleum	15
Bourgeois, Harry D., Wilmington	10

PIPELINE

Irelan, William L., San Luis Obispo	30
Halterman, Kenneth G., San Luis Obispo	10

RESEARCH

Harper, William R., Brea	25
Skouberg, Earl E., Brea	10

MARINE

Leaf, Everett A., Wilmington	15
Thomas, Hamilton G. P., Wilmington	10

COMPTROLLERS

Johnston, John B., Home Office	10
Rathfelder, Dorothy A., Home Office	10

AUTOMOTIVE

Saari, Gust A., Emeryville	10
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In Memoriam

Employees:

On August 18, 1956
GRANVIL H. DAVIS
 Cut Bank, Montana

On August 26, 1956
EMERSON C. McMULLEN
 Oleum Refinery

On August 29, 1956
FRED FRANCIS
 Production Department

On September 7, 1956
RALPH J. STOWERS
 Del Valle

Retirees:

On July 22, 1956
WILLIAM H. ROBINSON
 Field Department

On August 11, 1956
THOMAS QUILL, SR.
 Oleum Refinery

On August 12, 1956
ROBERT M. DEES
 Southwest Territory

On August 17, 1956
WILLIAM J. COX
 Field Department

On August 31, 1956
WILLIAM R. STEIBER
 Los Angeles Refinery

On September 5, 1956
GUY JAY
 Los Angeles Refinery

On September 9, 1956
WREFORD CLARK
 Northwest Territory

On September 16, 1956
LIONEL J. LIPPIATT
 Pipeline Department

Retirements



JOHN M. O'LEARY

Field Department
 Employed 4/9/17—Retired 10/1/56

LAWRENCE O. WILEY, JR.

Field Department
 Employed 11/8/17—Retired 10/1/56

HUBERT C. FERRY

Property Administration
 Employed 4/2/18—Retired 10/1/56

CLARK S. MEADE

Purchasing Department
 Employed 4/5/21—Retired 10/1/56

TIP RANDEL

Southwest Territory
 Employed 1/30/22—Retired 10/1/56

WILLIAM D. ZABEL

Los Angeles Refinery
 Employed 5/20/24—Retired 10/1/56

MILTON G. SELLECK

Oleum Refinery
 Employed 4/18/27—Retired 10/1/56

L. I. MESSINGER

Property Administration
 Employed 2/23/37—Retired 10/1/56

Allen Ely

Or how much highway in a gallon of gasoline?

"ASK A PERSON what he pays for a gallon of gasoline and even if he remembers correctly, his answer is usually wrong.

"Because nine times out of ten the price he quotes includes the tax.

"Gasoline, you see, is one of the few things we buy where the tax is lumped-in with the total cost of the product.



"Don't misunderstand me. The tax helps build the highways this country needs, and certainly we are in favor of it.

"But since by law we have to collect it—and many motorists figure it's part of our profit—it doesn't make the dealer's or our selling job any easier. Especially since the federal tax on gasoline went up another cent last July.

"That means direct state and federal taxes now average 8.8¢ per gallon. In some states it is even as high as 10¢.



"ASK A PERSON WHAT HE PAYS FOR A GALLON OF GASOLINE..."

"We get only a few cents more than that at the refinery for a gallon of gasoline. But the tax is still cheap if it buys the best highway system in the world.

"Next time you get your bill for filling up, though, just remember that at least 8.8¢ per gallon is the cost of roads, not gasoline."

Allen Ely—with Union Oil since 1927—is responsible for paying our fuel and gas taxes to the government.

Last year, for example, we collected from our customers and turned over to state and federal agencies some \$63,000,000 as fuel taxes.

In spite of this, you never got so much for your money as you do today when you drive in and say "Fill her up!"

For while the cost of everything else has tripled and quadrupled in the past 20 years, we're getting only a few cents more for gasoline.

And two gallons of our new Royal 76 premium do the work of three of our old product.

YOUR COMMENTS ARE INVITED! Write: The Chairman of the Board, Union Oil Co., Union Oil Bldg., Los Angeles 17, Calif.



Union Oil Company OF CALIFORNIA

MANUFACTURERS OF ROYAL TRITON, THE AMAZING PURPLE MOTOR OIL