



Stan Sprague, left, Research Manager, Engine Lubricants, and Vice-President of Marketing, Frank Staub examine a quart of Shell's new Super-X 10W-50 motor oil during Staub's recent visit to the Research Laboratory.

## 10W-50 oil features tech breakthrough

A proprietary new additive, heralded by Shell research as a technological breakthrough, is a major factor leading to the superior performance characteristics of the Company's recently introduced Super X 10W-50 motor oil.

Researchers at Wood River MTM Research, Shell Development Company, and Shell Chemical Company laboratories combined efforts to develop the additive that made the wide-viscosity-range oil possible.

The new oil is the first SAE 10W-50 to be developed by a major domestic oil company. The new lubricant was formulated to provide protection for engines in wide-range service, in all regions of the country, in all seasons of the year.

It replaces both the 20W-50 and 10W-40 oils that ushered in Shell's top-quality Super X line of motor oils last year. Both of those oils, incidentally, were developed at Wood River.

The Wood River Research Lab is the only one in Shell doing research and development on engine oils, according to Jack Damrath, supervisor of Service Station Engine Oil Development. "We're the only laboratory with the current mix of personnel and facilities available to do this job," Damrath said.

The new oil is designed for use in both domestic and foreign cars, and exceeds all U.S. automotive manufacturers' oil performance requirements. It also exceeds the stringent requirements of the API service classification SE.

The "10W" part of the product's designation means it will flow freely even when a car's engine is ice cold. The "50" means it will retain its body and also provide protection in hot-running cars in summer. The new oil can be used where SAE 10W, 20W, 20, 30, 40, or 50 grade oil—or any multigrade combination of these oils—is recommended.

The high-temperature asset of the new oil is especially important for all kinds of cars—particularly the newer models with added power, air conditioning, accessories and emissions controls. For older cars with higher compression ratios, the new oil's ability to maintain its thickness under heat and pressure, should aid in protecting the engine under turnpike, towing, and summer traffic jam conditions.

The new oil also helps control oil consumption and provides excellent engine and PCV valve cleanliness, according to Shell scientists.

"The heart of the new oil is a unique polymer," Dave St. Clair said. St. Clair is a research chemist at Wood River and his name along with research engineer Don Evans, is on the patent application for the additive package in the oil.

The polymer, and the additive package around it, were developed by St. Clair, Evans, and other Shell scientists after about three years of work on the additive and another 18 months on the oil itself.

A number of polymers were prepared at the Emeryville center and studied at Wood River, until the optimum one was decided upon. Then researchers went about putting the additive package together around the polymer, until they arrived at the oil which would work in all cars at extreme ranges in temperature, making the new Super X 10W-50 truly an oil for all seasons.

Special coupons offering a free quart of new oil with an oil change are giving motorists an extra incentive to buy Super X 10W-50.

Credit card customers received the coupons in May. Readers of magazines such as Playboy, Motor Trend, and Popular Mechanics will receive coupons as part of ads that appear in the publications.

## Bay Marchand producing

Bay Marchand well B-21—the scene of the longest offshore fire in history—is back on controlled production. This is the well which blew out on December 1, 1970, causing the fire which destroyed Shell's offshore platform located offshore Louisiana.

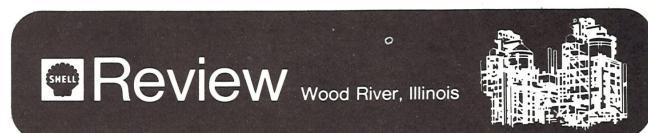
The fire, which ultimately was fed by 11 burning wells, was finally brought under control with the killing of the last burning well on April 16, 1972, 137 days after No. B-21 blew out.

Securing of all wells and debris removal followed, and in November 1971 work to restore the wells to production was begun from a new platform which was set in place of the destroyed one. The

work has proceeded without accident in accordance with a detailed plan which was formulated over a year ago. In all, 19 of the 22 wells which were producing at the time of the fire have been restored to their original mechanical condition.

Three wells were found to have suffered down-hole damage and were plugged and abandoned.

All that remains to be done now is to clean out mud and debris from inside the well tubings. Mechanical obstructions may be encountered in some wells but this work is proceeding satisfactorily and Shell expects to have full production restored by mid-summer.



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WOOD RIVER REFINERY

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### The practical joke that wasn't

Damon Miller, shift foreman at truck loading, PLW, with the new car he won recently in a church drawing at River Des Peres, Missouri. Winning the car wasn't all that difficult to Damon, but collecting was something else again.

The drawing for the car happened to occur somewhat late on a Sunday evening, and Damon had already retired for the night. The call informing him of his prize came at 11:30 p.m. and Damon figured it "was some sort of a practical joke."

Things were also complicated by the fact that, as Damon said, "I'd forgotten about buying a chance on the thing, it was so long ago."

The matter wasn't made any easier by a side bet the caller had with his wife. She had a bet going with her husband that the

winner of the car, a 1972 Plymouth Duster, wouldn't believe it because of the late hour. So every time Damon talked to the increasingly exasperated caller, he heard a lot of feminine giggling in the background, confirming his original notion of a practical joke.

"Towards the end I was getting pretty burned up," Damon said. Then, after hanging up for what he hoped was the final time, he remembered the lottery, and sat staring at the phone, waiting for another call. "I was hoping he hadn't given up and let somebody else have it," he said.

Finally, the caller gave it one last try, and Damon and a neighbor picked the car up at about 1:30 a.m. Now the only problem he has is to figure out what to do with a camper and his old car.



Damon and his Gold Duster

# Undersea in shirt sleeves

A multi-million dollar development program that will for the first time take oilmen to the floor of the ocean in a dry, shirt-sleeve environment was announced May 1, by Shell Oil Company and Lockheed Petroleum Services, LTD.

The first phase of a three-phase subsea program for deep water production will be tested this summer off the coast of Louisiana, with the final phase to be tested in 1972. The overall system, when proven, may permit new and more economical petroleum development of the outer continental shelves.

The heart of the system is a dry, one-atmosphere service capsule that will transport oilmen to the sea floor to perform familiar operations under dry conditions inside a chamber. Oil companies currently have wet-sea-subsea wellheads, or Christmas trees, which may require diving personnel or special supporting equipment.

The first phase of the program will involve the installation of a one-atmosphere permanent wellhead cellar containing a Christmas tree that will be assembled in a cellar. The cellar will be installed on a Shell well drilled from a mobile drilling rig in about 400 feet of water offshore Louisiana.

Assembly and land testing of the wellhead and Christmas tree equipment has been completed in Houston.

This installation is an outgrowth of the development work performed by Lockheed and demonstrated in 1970 off Vancouver Island at water depths ranging up to 900 feet. Installation and pipeline hookup will be made using Lockheed's service capsule.

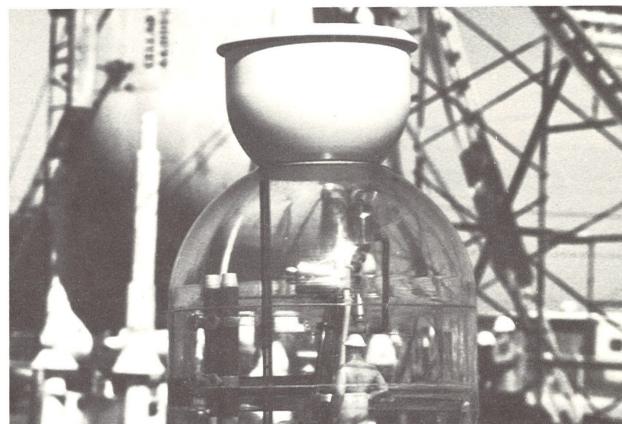
The second phase calls for the installation of a manifold chamber that will control, commingle, and test production from subsea wells. Flowlines from the wellhead cellar will be manifolded in the chamber to provide for the transportation of the fluids to subsea separation and pumping facilities.

Phase three will provide for one-atmosphere subsea production station with fluid transfer capability. All three phases of the program will be supported by the Lockheed service capsule.

The development work for the overall program will be done by Lockheed Petroleum Services Staff, working with Shell Engineers.

The two companies also indicated that they plan to invite other companies interested in this type of development to join as consortium members.

This development program is expected to extend the petroleum industry's capability to produce hydrocarbons from deeper water leases, and thus provide additional energy to meet increasing worldwide demands.



The subsea wellhead cellar's flowline connection is tested on land prior to the system being shipped offshore Louisiana where it will be installed on a well drilled in about 400 feet of water.

## Self Service gains popularity

### SRA Happenings

#### Bowling

The 1972/73 SRA Bowling League will begin the latter part of August. There are still openings for new teams on Monday or Wednesday nights. Contact J. Thomas, Tech Dept. Phone 739, or L. Clark, Hydroprocessing. Phone 362, if interested.

#### Rock show

The second annual Shell Rock Club show at Kendall Hill recently turned out to be as much of a success as last year's inaugural.

The exhibits drew a crowd estimated at 1200 over the show's two-day duration. Among the exhibits were those featuring gem faceting, table making (out of stone, yet), silver casting by Robert Gangler, of the co-sponsoring Piasa Rock Club of Alton, and a unique exhibit by Mr. and Mrs. Hollis Gordon of Independence, Mo., featuring stones which resembled different foods.

Also on display were minerals, fossils, and many types of gem stones. The show drew spectators, contributors and swappers from all over the country. States represented included Utah, Oregon, Missouri, Kansas, and Pennsylvania.

#### Speaking of Safety

Weather as a safety factor is many times over-looked. During the winter, ice, slush, and extreme cold can be personal safety hazards, while at this particular time of the year, it is the heat.

Heat sickness is an insidious thing. It can, and most times, does, sneak up on a person with little warning. The best way to cure heat sickness is to prevent it with good judgment. If you're working outdoors, wear protective clothing.

Utilize salt tablets, and drink a light amount of water from time to time. A light diet is also useful in containing heat sickness during days of high temperature.

Another, albeit more familiar, summer safety hazard is infection through the various poisonous plants: ivy, oak and sumac. These are pretty miserable when you come into contact with them, and can ruin a summer outing.

The following suggestions will aid preventing many cases of skin irritation after exposure to poison ivy or oak:

- A.) Scrub exposed parts of body thoroughly but gently with soap and warm water. A full warm bath or shower is preferable.
- B.) Apply rubbing alcohol liberally to exposed areas.
- C.) Apply calamine lotion to the itching area.
- D.) Always change to clean clothing.

Fred Hess

"I'd rather do it myself."

People with attitudes like this are keeping business booming at the growing number of new Shell self-serve gasoline stations around the country.

"We could conceivably have well over a hundred of these stations operating by the end of the year," said George Chadwick, manager of planning and research in Head Office marketing. Nearly a third of the new stations planned for 1972 are of the self-serve variety. This is even more impressive since Shell first tested self-serve in Boise, Idaho a little more than a year ago.

But enthusiastic customers quickly took self-service out of the experimental column -- and taught Shell marketers a few lessons in the process.

"It was thought at first that self-serve would be most popular in low income areas," Chadwick said, "but that notion was quickly dispelled. We found that drivers in more affluent neighborhoods don't hesitate to pump their own gasoline." Women were another group of customers not expected to go for self-serve, "but we have been widely accepted by women drivers," he added.

It's not just the Company's attitude toward self-serve that is undergoing changes; the modern, neat, and clean appearance of Shell's new facilities appeals to motorists who think that grease and oil are synonymous with service stations. They are learning that filling a car with gasoline isn't the messy business they envisioned.

There are several reasons why motorists are so attracted to self-serve. Savings is one -- gasoline is usually less expensive than at a full-service station. But money isn't the only thing drivers save by filling their own tanks. A big plus for many motorists is the time they save by pumping their own gasoline. And for those who don't want to forego the convenience of a clean windshield, Shell's

self-serve outlets provide compact "do it yourself" service facilities containing paper towels along with air, water, and motor oil.

"Increased interest in all phases of 'do-it-yourself' activity seems to have added to customer acceptance of self-serve," Chadwick explained. Young people are among the most enthusiastic about self-serve, but the idea certainly isn't limited to one age group. "The trend toward gasoline self-service just follows the current movement in other retail and service areas including groceries, drugs and hardware," he said.

Most of Shell's self-serve stations are of the "post-pay" type: the driver fills his car's tank and then pays a cashier for the amount of his purchase. But there are several other methods such as "pre-pay", a system in use at many convenience stores where the driver pays in advance for the amount of gasoline he wants and the cashier sets the pump to dispense that much. And in California this summer Shell will begin testing its first coin-operated self-serve dispensers. The customer operates this dispenser by depositing one or more \$1.00 tokens. Exact change in coin is returned to the customer for any unused deposits at the end of the transaction.

"We're also studying the possibility of tying in other types of businesses with the self-service concept," Chadwick said. Among other things Shell is considering the combination self-service-convenience store operations. The Houston marketing district will open the first two self-serve stations offering a free tunnel car wash this summer.

What it all adds up to is that Shell believes self-service is here to stay. "Shell has made a definite commitment to this marketing concept," Chadwick noted. "We expect to have plans for more than 200 units in the works by the end of the year. These numbers are expected to swell dramatically in the next few years."

# 1972 Bloodmobile Visit



*Donations were up from last year*

281 refinery employees donated blood to the Red Cross recently, up from 261 last year, during the Alton-Wood River Chapter's annual visit.

The 12 winners of twenty gallons of Shell gasoline are: Jim Miller, Research; Bob Sims, Distilling; Hy Ratner, Research; Cliff Barnes, Purchasing; Ed Hilt, Engineering Field; Wesley Rives, Engineering Field; David Sullivan, Engineering Field; Fred Windisch, Research; Kenneth Strain, Engineering Field; Bill Grigg, Utilities; Tim Yinger, Engineering Field; and Herschel Sparling, Cat Cracking.



*Donors were served refreshments*

## DEATHS

RICHARD D. PINKERTON, June 29. Richard was an Operator 1st in the Gas department before retiring in 1964.

FRANK J. PINKAS, July 2. Frank was a Pipefitter 1st in Engineering Field before retiring in 1962.

CLIFTON L. STURGEON, July 1. Clifton was a Pipefitter 1st in Engineering Field before retiring in 1967.

MELVIN W. ROMMERSKIRCHEN, June 29. Melvin was a Yardman in Engineering Field before retiring in 1970.

RAYMOND F. GOOCH, June 3. Raymond was an Operator 1st in Effluent Control before retiring in 1962.

ROY R. SCHNEIDER, June 24. Roy was a Pipefitter 1st in Engineering Field before retiring in 1963.

HARRY L. ELDER, June 22. Harry was a Shift Foreman in Distilling before retiring in 1961.

## Shell daughter wins honor

Another Shell offspring, Sherry Early, daughter of Jim Early, Lube department, has made her mark in academic circles. Sherry has been named to "Merit's Who's Who Among American High School Students."

Students named to Who's Who are selected as a result of outstanding achievements in scholarship programs and represent less than 1.5% of the junior and senior students from the nation's public, private, and parochial schools.

Sherry attends Highland Community High School and her accomplishments will be published in a book of permanent record for use as a reference to libraries, universities and corporations.

She has earned an honorary state scholarship and has enrolled at Greenville College where she intends to minor in Spanish for a teaching career.

## Superlife battery introduced

Shell is introducing a new Shell Superlife battery with a "lifetime" free replacement warranty.

The new Superlife battery is being offered to fill the needs of drivers who want a premium battery and the added attraction of a "lifetime guarantee."

Shell guarantees that if the Superlife battery, in normal passenger car service and under normal operating conditions, fails to accept and hold a full charge at any time while the purchaser of the battery owns the car in which the battery is installed, Shell will replace the battery free of charge. This guarantee does not apply to batteries installed in commercial vehicles.

The battery comes in the five most popular sizes to fit a wide range of American and foreign cars. Only five other major companies currently offer lifetime-guarantee batteries.

## Ideas for saving

In these days of inflation, a penny saved isn't necessarily a full cent earned. Still, the best way to beat the rising cost of living is to spend less money.

Some consumers take the easy way out as far as saving is concerned—they just quit buying. But more and more people are discovering that you can have what you want and spend less too.

Sparked by the back-to-natural-foods movement, many housewives have found that baking their own bread not only provides more nutritious fare for their families but also puts a few extra cents in

their pocketbooks.

And one Illinois man takes pride in making his own soap at home. He recommends the soap made from beef fat for use in the shower and says his bacon soap is good for washing your hands. Savings: \$1.40 for each two pounds of soap—and the homemade soap is pollution-free, bio-degradeable and contains glycerine.

If you've got a good idea for saving money, share it. Send it to Shell News, One Shell Plaza, Houston. A future issue will feature the best and most interesting ways Shell people save.

## Refinery Safety Committee



**Erv Keister**



**Willis Coffman**

## Classified ads

### FOR SALE

Baby crib, \$35.00, bassinet, \$15.00, high chair, \$10.00, car seat, \$5.00, stroller, \$5.00, window air conditioner, \$35.00, metal dresser, \$10.00. Maynard Green 217-324-2859.

Five ewes, one coppertone stove hood, two milk goats, H. Kuhlman, 888-2427.

14' Johnboat, 95 lbs. \$60.00. E. Bensman, 466-5708.

1970 14' North American boat and 1970 80 h.p. Mercury motor, 1970 Shoreline Tilt trailer with many extras, \$1500.00 John Laird, 254-9051.

Maroon two-step recliner, Kroehler, A-1 condition, \$45.00. G. Archibald, 377-9815.

1968 Javelin, air conditioning, power steering, brakes, 44,000 miles, \$1200.00, 667-6885.

1968 12'x50' mobile home with wall-to-wall carpeting, automatic washer, and many other features. M. Ribbing 1-618-931-0087.

Good home wanted for five kittens, born May 28. Libby Woods, 462-6708.

## KRATON<sup>®</sup> products

Due to the large number of requests from Shell Review readers, the following is a list of several footwear manufacturers who use Shell's KRATON<sup>®</sup> thermoplastic rubber in their casual wear line.

COMPANY	Brand Name	STORE
AMFESCO	Knitknicker	W.T. Grant
568 Broadway		K-Mart
New York, N.W. 10012		

Carter Rubber Company	J.C. Penney
1167 N. Washington	Sears
Wilkes-Barre, Pa. 18705	E.J. Korvette

B.F. Goodrich Co.	Excel Brands
Goodrich Drive	Avenger
P.O. Box 756	Goodrich
Charlotte, N.C.	J.C. Penney

Scottie Industries	Big M	J.J. Newberry
8 Roosevelt Avenue	Scotty Kresge	
Hudson N.H. 03051		

Many of the shoes made with KRATON<sup>®</sup> are marketed without trade names, and go to a wide variety of outlets, therefore this list is not at all complete, but simply a guide to those wishing to buy KRATON<sup>®</sup> shoes.

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Beginning with this issue of the Shell Review, Refinery employees will be introduced to the six-man Safety Committee. These are the men who review safe working conditions within the Refinery.

This month, the featured members are Erv Keister, Operator 1 in the Dispatching Department, and Willis Coffman, Pipefitter 1.

# Man is here to stay

The biggest environmental problem facing us today is finding the point of peaceful coexistence between man and the ecology. Man has always effected the environment around him, and he always will. But, at what point does the effect become harmful to the environment, and ultimately harmful to man? Finding that point, according to William F. Gusey, Shell's senior staff wildlife specialist, is one of our largest challenges.

When the Marquis of Queensbury helped formulate the rules for boxing which bear his name, Gusey explains, the abuse and marking of the human body were still permitted -- in keeping with the spirit of the sport. But irreparable damage which could result from a "low blow" was frowned upon, and hence the "beltline" was defined as the line of demarcation between the acceptable and unacceptable.

"Like the body, the environment may also have a beltline," Gusey contends. "The environment, capable of sustaining and considerably resilient to much use and abuse, also has a point beyond which irreparable damage may occur."

The beltline is no fixed point, but is a broad area in which the ecologist has the responsibility for melding and blending social, economic and ecological factors into a decision which reflects responsibility to both man and his environment. "And therein lies the elusive middle," he says, "where we must learn to come to grips with the ecologically necessary versus the ecologically desirable."

Gusey strongly disagrees with those who suggest that our society--good, bad or otherwise, or any social order of a greater or lesser degree of development--can be maintained without an "effect" on our environment.

"The question confronting us is one of determining whether an 'effect' is desirable, acceptable or detrimental," he says. "It is also imperative that environmental change not compulsively be equated with environmental damage. There are too many examples of changed ecosystems which support an abundance of life--far in excess of that which they were capable of supporting in their pristine state."

Citing examples, he says that herbicides dramatically change the environment, "but it can be generally concluded that such environmental alteration may be a significant key to the stability of many wildlife species, rather than to their detriment."

He also points out that while marine and coastal fishery has been declining in the Pacific, New England and Atlantic areas, there has been a substantial increase in the fish and shellfish harvest in the Gulf states during the past 30 years. This coincides with the development of the offshore petroleum industry, and "a positive relationship is strongly suggested," Gusey maintains.

But the greatest impact of man on the environment is yet to come as the population substantially increases in the future. "In spite of the potential impact on our nation in the next 30 years, it is evident that economic progress will continue," he says. "However, we will not accept environmental deterioration that has accompanied economic growth in the past."

Gusey concedes that many past practices in extraction, processing and utilization of natural resources has caused massive and perhaps irreversible damage to our environment. "It's easy to enumerate our multitude of environmental sins, and assign blame," he says. "It's also easy to find solutions in the simplistic view of cease, desist or ban. In the final analysis, however, the search for environmental villains will not work."

"The spectrum of deliberation surrounding the impact of man on his environment is multi-faceted. It is an ill-defined area which must be addressed, in which the impossibility of producing or utilizing any resource without exerting some 'effect' on other environmental elements or exacting some penalty must be acknowledged.

"The issues confronting us today must not be related to preservation or destruction, or to more or less. We must determine what we want to produce, how much of it, what benefits are to be derived from our efforts, and how can these objectives be fulfilled concurrent with an acceptable impact on other environmental factors.

Simplistic, all-or-nothing, answers provide temptingly easy, yet often unrealistic solutions. Somewhere between those extreme poles lies the answers, Gusey said. "It is indeed the elusive middle, where all solutions to all environmental problems must ultimately be found. Somewhere within that broad middle lies the environmental beltline. The biggest challenge today is one of determining where it is."

## SERVICE ANNIVERSARIES



Bob Wehmeyer  
Research Laboratory  
35 years



Howard Buettner  
Engineering Field  
30 years



Bill Cook  
Engineering Field  
30 years



Ed Allen  
Engineering Field  
30 years



Charlie Hall  
Engineering Services  
30 years



Jack Harris  
Safety  
30 years



George Gray  
Research Laboratory  
30 years



Noel Lane  
Dispatching  
30 years



Walt Roberts  
Technological  
30 years



Marc Hymel  
Engineering Services  
25 years



Rex Hogan  
Engineering Field  
25 years



Ross Lee  
Econ. & Sched.  
25 years



Abby Abernathy  
Engineering Field  
25 years



Bob Wright  
Engineering Field  
25 years

## Review

Wood River, Illinois



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