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IRAQ OIL IN 1955

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*Iraq Petroleum Company Limited*

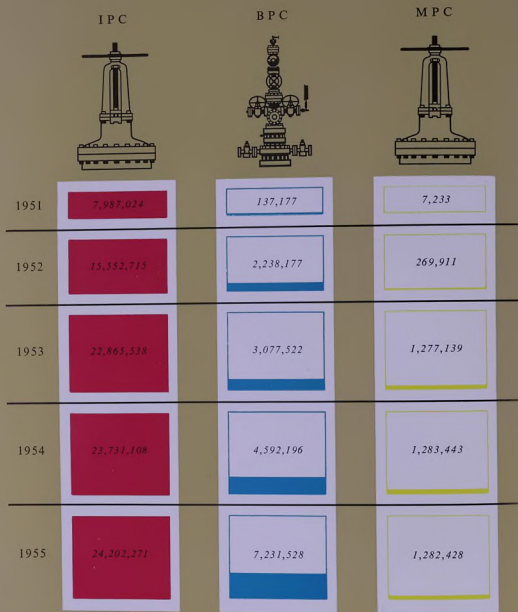
*Basrah Petroleum Company Limited*

# Iraq oil in 1955

*Mosul Petroleum Company Limited*



## Iraq crude oil production 1951-55 in long tons



## Foreword

In the last ten years the oil consumption of Western Europe has increased by 90 million tons, most of which comes from the Middle East, with great benefits to the economies of both regions. In this development the three Companies have been privileged to play an important part.

For the Companies engaged in the production and export of Iraq oil, 1955 saw the realisation of the targets set in the 1951 profit-sharing agreement with the Iraq Government. Under this Agreement, the Companies undertook that the Iraq and Mosul Petroleum Companies would together export a total of 22 million tons, and that by the end of 1955 the Basrah Petroleum Company would attain a rate of 8 million tons per annum. In 1955, the IPC and MPC produced a total of 25.5 million tons, and the BPC 7.2 million, and by the end of the year that Company was producing at a rate of 8.1 million tons, as compared with 5.3 million tons in December 1954.

These levels of production cannot be indefinitely sustained by natural flow from the known fields. Efforts to find additional reserves have therefore been intensified, and in the IPC concession have met with a modicum of success at Bai Hassan and Jambur. Neither of these reservoirs can, however, be expected to compare with Kirkuk, where studies of reservoir performance have been directed to the problem of assisted flow. In the Basrah concession, the Rumaila field has been rapidly developed, and by the end of the year contributed one third of Basrah's total production. Only in the Mosul concession has exploratory effort failed to yield significant results. The northern portion of this area having proved so disappointing, exploration is now being concentrated in the southern portion of the concession.

In 1955, revenues accruing to the Iraq Government from the operations of the three Companies rose to the new high level of £72 million, 70 per cent of which is devoted by the Government to capital schemes which will increase the productivity of the soil and enrich the lives of the people.

In November, the Iraq Petroleum Company transit agreement with Syria was revised, and the supplemental agreement reached with the Government was ratified by the Syrian Parliament on 5th December.

During the year, the Companies have continued to enjoy harmonious relations with the Government and peoples of the countries in which they operate, and they have pleasure in offering this booklet as a tribute to the efforts of all who have contributed to the achievements here recorded.

MANAGING DIRECTOR



*Destinations of Iraq Oil in 1955*





*Left: The Baij-Baghdad 12-inch pipeline feeding the Government refinery at Daura was commissioned in April 1955. H.E. the Minister of Economics, Dr Nadin Pachachi, is in the centre of a group of distinguished visitors*

*Below: Aerial view of an oil rig at Jambur  
Opposite: A thousand visitors, of whom 650 were students, came to Kirkuk in 1955*

## Iraq Petroleum Company



Production for 1955 was 24,202,271 tons; and the footage drilled was 41,024.

Pressure decline in the Kirkuk field was the subject of much consideration during 1955, at the end of which methods were being examined for maintaining pressure crude production; but meanwhile the field continued on its majestic course, yielding its 150 millionth ton in October. Of the wells drilled in the field, forty-four were producing, forty-eight had been plugged during the war, three were for gas-oil observation and fifteen for oil-water observation, one was for water observation, and one was temporarily plugged.

In the light of intensive work accomplished during 1955, the earlier hopes for Bai Hassan and Jambur were modified. Each area produced evidence that was perplexing. At Bai Hassan, the productivity of the wells varied considerably, though there is no doubt that the area will justify the construction of a 12-inch pipeline to link it with K1. There, one well, Number 8, was being drilled at the end of the year. Three wells were completed during the year.

At Jambur, it was realised that the promise of the discovery well was not fulfilled by subsequent results. Nevertheless, a temporary de-gassing station and a 36-mile 20-inch pipeline link with Kirkuk were constructed.

At the end of the year, two wells, Numbers 7 and 8, were being drilled at Jambur. Four wells were completed during the year.



A notable event in the oil history of Iraq occurred on 20th April, when pumping of crude from K2 to the Iraq Government Refinery at Daura began. Later, modifications were introduced in the process plant to permit the pumping to Baghdad of 'tailored crude', that is, crude from which the surplus light products, such as petrol and kerosine, had been removed. The pumping of this new crude began on 8th September.

Hitherto the Company was making refined products for public sale through Khanaqin Oil Company, pending the completion of the Daura Refinery.

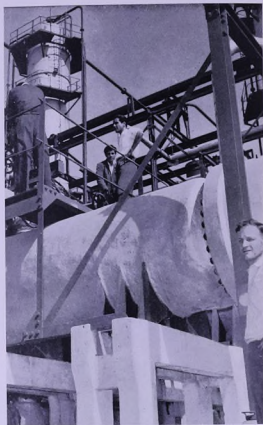
The Kirkuk municipal water supply scheme progressed well during the year, and the Company was





*A day in the life of Abdul Wahid, an operator in the process plant at Kirkuk. Right, he is seen at work. Above, he is discussing the purchase of a refrigerator with a member of the Personnel Services and below he is being inoculated at the medical centre. Abdul Wahid is also a well-known singer who often broadcasts on Baghdad radio, and is seen (below right) entertaining members of the employees club at Kirkuk*

*Opposite page: Aerial view of the process plant at Kirkuk in the spring of 1955*



able to pump up to 2½ million gallons of water a day to the town by utilising the town's 24-inch pipeline, installed in 1954. Meanwhile, the erection of the town's own 7½ million gallons a day pumping station proceeded, and this station will be able to supply the town in the summer of 1956. All equipment and materials for this scheme are being paid for by the Development Board, and the design, ordering, construction, and installation are being done by the Company.

The new staff club at Baba, including air-conditioning plant and swimming pool, was formally inaugurated by the Chairman, Admiral of the Fleet Sir John Cunningham, on 5th March; and the training workshops, a section of the industrial training centre, were finished and occupied.

The end of the first apprentices' course at the industrial training centre was marked by the success of six Iraqis in the examination, which is the equivalent of the ordinary national certificate in the United Kingdom.

A club for employees at Arrapha, with over 600 members, was opened during September.

At Haditha the fine school which the Company is building as a gift for the Iraq Government, which will provide the staff, was approaching completion at the end of the year.

At K3, a cinema, open to personnel of all grades, and containing 100 seats, was opened just before the end of the year; and there also 44 more houses for employees were erected.

A new ward for employees was added to the hospital at K1.

The renown of the home ownership scheme in Kirkuk was exemplified in the enthusiasm with which the inhabitants of K3 greeted the news that the scheme will be extended to their area. In Kirkuk itself, 137 more houses were constructed under the home ownership scheme, making a total of 341 houses since the scheme was introduced; but applications were during the year still out-numbering the 81 houses under construction. It was confidently estimated that by the end of 1961 one thousand houses will have been erected under the home ownership scheme.



Increased use was made of local facilities – there were, for example, over 20 Kirkuk building contractors engaged on houses for the home ownership scheme. Local purchase showed an upward trend. In other ways, too, closer links between the Company and the town were forged. Some of the expatriate personnel prefer to live in the town, to which the Company public relations office was moved during the year.

*Opposite top: Kirkuk Fields won the Thorneloe Cup in 1955. This photograph shows an Iraqi Army XI playing against Kirkuk Fields*

*Opposite below: A section of the tank farm at Kirkuk. Above: The K1 hospital at Kirkuk where a new ward for employees was added in 1955*

*Left: The savings scheme at Kirkuk had another successful year. Encouragement and advice on the scheme were readily given to employees*



*Left: Night shift for the driller on a rig at Rumaila*

*Below: The Fao terminal shipped nearly 7 million tons of crude during the year*

*Right: Towing a rig to a new location in the BPC fields*

*Below right: The French tanker 'Madeleine' loading at Fao*

## Basrah Petroleum Company



Production for 1955 was 7,231,528 tons; and the footage drilled was 71,821.

Consolidation was the dominant theme of the Company's activities during the year—consolidation of the construction programmes of previous years with the object of ensuring by the end of 1955 production at the rate of eight million tons annually.

Fulfillment of this target was achieved largely through the development of Rumaila field, which proved to be a sprightly partner to the older Zubair field. No new wells were drilled at Zubair during the year, but at Rumaila eight new wells, all producers, were brought in, making a total of thirteen there.

Through the two de-gassing stations at Zubair and the one station at Rumaila, production increased steadily. Certain of the Zubair wells, however, yielded crude containing an undesirable quantity of salt. In that field, therefore, the construction of a de-salting plant was begun.

\*Observations and the accumulation of data pre-

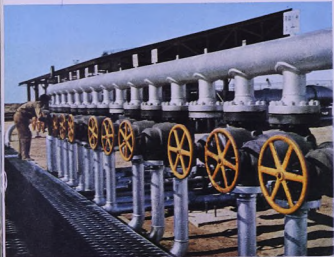




paratory to reservoir studies of these two known fields were intensified, primarily with the object of securing the most economic production from them and of safeguarding an annual production of eight million tons.

Exploration continued incessantly throughout the year. Parties operating in remote desert locations comprised geologists, in places where rocks outcropped among alluvial deposits, and, elsewhere, geophysicists, using gravity and seismic methods. At Luqait, 65 miles west of Basrah, five holes were drilled to an average depth of 1,480 feet, the results indicating that no structure existed there. The structure drilling party thereupon moved out 40 miles deeper into the desert, to a place between Busaiya and Abu Ghar.

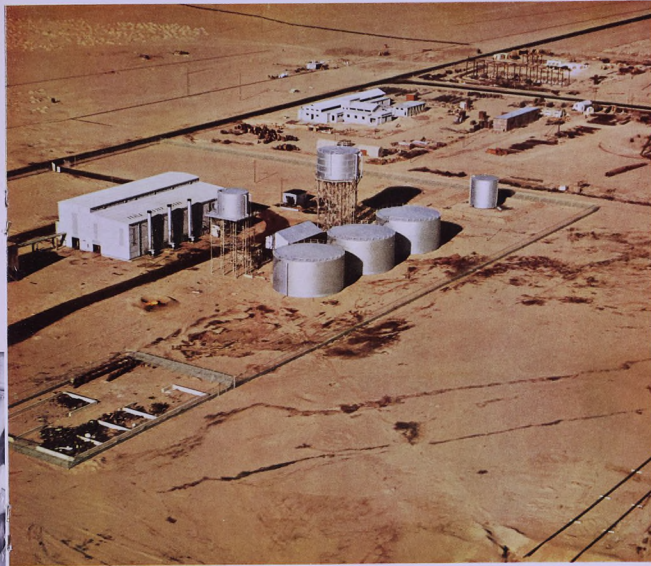
Other exploratory parties included a geological field party which worked over the south-west corner of the concession, a gravity party working in the western districts, and seismic parties which made



*Above: The main manifold of the de-gassing station at Hor al Hammar*

*Above right: Taking oil aboard a tanker at Fao*

*Right: A member of the drilling crew at work at Rumaila*



*The power house at Zubair*

investigations west and south of Rumaila, and also in the area between Amara and Qurna.

Preparations, based on seismic examination, were made for drilling, in the spring of 1956, at Raahi, 20 miles due west of Rumaila.

At Fao Terminal, six more storage tanks were completed during the year, making a total of 18.

Increased throughput to the Fao terminal involved the provision of increased amenities for staff and employees. Thus in Basrah, 26 houses for staff were completed during the year, with nine more under construction; at Fao, two more houses were under construction; and at Barjisiyah 15 houses were built.

For employees, 66 houses were under construction at Fao at the end of the year; and at Marbad, 74 houses were erected, with 18 more under construction. All these houses were built or being built by contractors, under Company supervision.

More, also, was done to provide clubs and canteens. At Barjisiyah, a staff club was opened in November, 1955; and in Basrah the employees' club, built for and rented to the Company by a Basrah business man, was approaching completion by the end of the year. Two 500-man canteens, one in Makinah, the other in Zubair, were completed,

and a new block of offices for management in Makinah was under construction.

It was gratifying that the home ownership scheme, after a somewhat demure beginning, showed signs of justifying the hopes placed in it. During the year 15 houses were completed and occupied, making a total of 18 since the start of the scheme, with 66 more under construction. What was even more gratifying was the number at the end of the year – exceeding 300 – of applicants for houses.

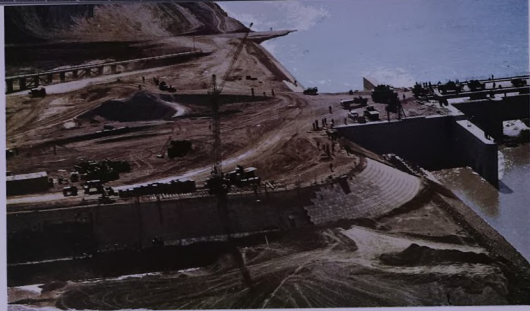
In the sphere of training, the Company showed impressive figures. 12 employees were sent to the United Kingdom for courses of specialised training; 27 students from Basrah were at the industrial training centre at Kirkuk; 30 students from the Government technical school at Margil or from the Kirkuk training centre accepted the Company's offer to provide vocational training during the long summer holiday; and about 50 employees enrolled for correspondence courses on a variety of subjects, from the purely technical to the more general sides of business training. All training within the Company was done on the job, though four English classes, elementary and advanced, were held during the six winter months in Basrah and Zubair, and the maximum attendance – 20 in each class – was obtained.

New recreation facilities provided during the year included two tennis courts, a basketball pitch and a football pitch at Makinah; swimming pools at Muaffaqiya, Barjisiyah, Marbad and Fao; and tennis, badminton and squash courts at Barjisiyah.

An interesting development was the introduction of the hire purchase system for employees who wanted cycles or refrigerators. The purchasers were required to put down 25 per cent of the cost of the article, and each month to pay off ten per cent, the Company giving a guarantee of such payments under the instalment system.

*Left and opposite above: Examples of the many BPC Home Ownership Scheme houses which had been built or were under construction by the end of 1955*  
*Opposite below: The Barjisiyah bachelors' mess*





*The Samarra barrage of the Wadi Tharthar flood control scheme which was to be opened by HM King Faisal in April 1956*

## Mosul Petroleum Company



Production for 1955 was 1,282,428 tons; and the footage drilled was 27,288.

As in 1954, the Company began 1955 with two main problems; how to maintain production from the Ain Zalah and Butmah fields, and the discovery of additional sources of crude oil that would flow.

The first aim was achieved by installing gas-lift in the Butmah wells which had given signs of ceasing to flow. Happily, the result of this operation, the first of its kind in Iraq, was satisfactory. Gas was supplied by a six-inch line from Ain Zalah, and Butmah Number 6 was commissioned on gas-lift on 2nd March, and thereafter Numbers 3 and 5 were tied in to the system. Butmah now contributes about one quarter of the Company's total output.

But the Company, having solved its short-term problem, increased its attention to the long-term problem of supplementing known sources of production. In this latter field, its efforts were indeed

*A drilling rig at Atshan*

arduous. Despite the difficulties created by the distance from the headquarters of selected drilling sites, or of potential drilling sites, despite the necessity to construct new roads in remote surroundings, often far from adequate water supplies, and despite the necessity to provide all facilities for men working in these distant parts, the work was carried on steadily throughout the year.

At the end of 1955, two strings were operating at Jabal Makhul and Sasan respectively.

The Jabal Makhul boring, where drilling went on all through the year, is intended to test the Jurassic and older formations which were reached in the pre-war well drilled on the same structure but some nine miles to the northwest. At the end of the year, drilling progress continued to be satisfactory, despite the steep dip of the rocks then being penetrated.

At Sasan, a well was spudded in on 30th October. There, the first object was to test the Upper and Middle Cretaceous. By the end of the year the surface casing had been put in, and it remained for results to determine whether drilling would stop in the Cretaceous, or whether it would be continued to deeper levels.

Drilling at Butmah Number 7 began, with the third string at the Company's disposal, in September, and there again the testing of the Upper and Middle Cretaceous was the objective. Since this well is situated upon a known structure, the results of drilling, which was expected to be complete by the end of 1955, will be less difficult to interpret.

At Atshan, drilling was continued to 11,312 feet, a depth reached in September, when the well was abandoned as a dry hole.

Drilling was continued at Alan, where between 9,000 and 10,000 feet there were faint indications of oil, which were being examined in the laboratory at the end of 1955.

Geophysical operations were conducted intensively throughout the year. Early in 1955, a seismic party confirmed the presence of a structure at Abu Gullar (Tel Uwaint), which had previously been noted from the air.

Then, the seismic party moved to the extreme south of the area of the MPC, near Abu Jir. The party spent the rest of the year working between K3

and Hit, supplementing the surveys made in 1952.

The whole trend of exploration work, indeed, was towards the south. One of the most important endeavours by the Company was in Mileh Tharthar, 20 miles south-east of K3. Previous geophysical surveys there, made during the early 1950s, indicated the existence of a possible structure, and by the end of the year a camp had been built there, rig foundations had been laid, a start had been made in the laying-out of an airstrip, and everything was in readiness for drilling in early 1956.

The Government bitumen plant at Qaiyarah started operations in July, with the Company supplying heavy crude as required from an adjacent de-gassing station installed in the early summer of 1955. Two 5,000 barrel tanks at Qaiyarah were completed.

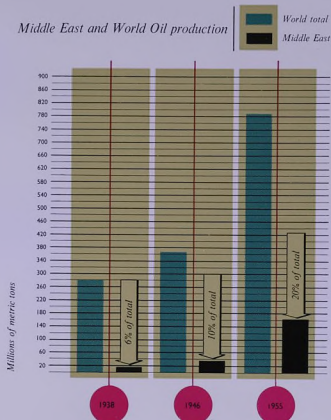
Engineering problems during the year were manifold. The construction of new roads in distant areas – no fewer than 40 miles of road were laid down – has already been referred to, and no less important was the laying of water lines to the various camps. Thus a nine-mile line was constructed from Gusair to Sasan, a 25-mile line was built from the Euphrates to Mileh Tharthar, and the line from Ain Zalah to Butmah Number 2 was extended over a distance of seven miles, to Butmah Number 7. A high capacity pump was installed in the existing pump station in the village of Tel Mus.

In Ain Zalah itself, two generator sets were installed in the power station using natural gas as fuel for electricity generation – one of these had formerly run on diesel fuel. Three other units still run on gas oil to provide the additional power required.

The most notable buildings in Ain Zalah were the new management offices, completed by the end of the year, a 24-man mess, a new petrol and oil station, and a new fire station. These were built by local contractors.

Relations of the Company with the local communities remained excellent. For example, the annual sports in April were for the first time attended by the Mutasarrif and other prominent personalities of Mosul, and schools in the areas surrounding Ain Zalah accepted enthusiastically an invitation to participate in these sports.

Middle East and World Oil production



## The Pattern of Progress

The world's output of crude oil has nearly trebled since 1938, a not inconsiderable performance for a basic industry which already was large. In comparison, the rise of the Middle East oil industry, which recorded a tenfold expansion in the same period, has been little short of meteoric. Between 1938 and 1955 annual production of crude oil in the Middle East region rose from 16.2 to 162.5 million tons.

Such a vast expansion within so short a period prompts a variety of questions. How has it been possible? Where are the supplies of oil located? Where has it been marketed? How did the war affect production and consumption? How has it been possible to ship and to refine this huge

increase of crude oil? Where have the plant and equipment come from and how have they been financed? To supply satisfactory answers one must begin with the period just before the war.

Although important discoveries had been made by 1938 in most of the countries which now constitute the Middle East oil producing region, commercial development was still in its early stages. The exception was Persia, where oil had been discovered thirty years before and where production by this date accounted for two-thirds of the whole region's output. After Persia came Iraq, which reached the full potential of its initial 12-inch pipelines by 1939. The war interrupted further development in the Middle East, and in spite of the vital

need for oil the resources were not available for further exploration in the area, and development was virtually suspended for the six years of the war. Effort was therefore concentrated on the fields which were already in operation, and the Middle East annual output was raised from 16.2 million tons in 1938 to 35.5 million tons in 1946. Thus by the end of the war, the Middle East had increased its share of world total production from six per cent to ten per cent. The only considerable contributors to this total were Persia, Iraq, and, latterly, Saudi Arabia.

From the point of view of the availability of crude oil the prospects before the Middle East industry in the post-war world were therefore distinctly promising. The existence of vast reserves in the region had been fully established before the war, and it was also considered likely that these represented only a fraction of the probable resources. Nevertheless the plant and equipment essential for developing even the known reserves were lacking. The trained labour forces required to erect and operate the equipment were too few, and there was insufficient refinery capacity to process any rapid increase of crude oil supplies. Finally, the most important problem was that of finding a market for the new supplies in a world disrupted by six years of war.

These problems had been foreseen by the industry, and before the war ended, plans had been made for expansion. The revival of industry in Western Europe created a rapidly growing demand for oil products of all kinds which coincided with the development of Middle East sources of supply. Within a decade oil production in the region had expanded to nearly five times the 1946 figure, and its share of world production had risen from ten per cent in 1946 to twenty per cent in 1955, although that total had doubled in the meantime.

### Post-war-expansion

The future pattern of development in the Middle East was apparent by 1940 from the succession of promising discoveries that had been confirmed, consequent on extensive searches in the Persian

Gulf region. After the first discovery of oil in Persia in 1908, a long interval followed until the location of accumulations at Kirkuk, in Iraq, confirmed hopes that further supplies might exist over a wide area. Between 1932 and 1940 a series of major discoveries were made. A confirmed accumulation is not, of course, a commercial supply, and it often takes several years to plan the operation and to transport and assemble the necessary plant and equipment. The terrain of this region, moreover, presents many peculiar difficulties, since many of the oil fields are in rugged and mountainous country, or in deserts remote from habitation. It was therefore not possible to come to grips with the problems of development until 1946 and onwards.

### The scale of investment

After the war, capital expenditure was embarked upon on a huge scale. Apart from further exploration, partly by means of aerial survey and by drilling operations, which were rapidly increased, many millions of pounds sterling were invested in roads, on gathering systems between the wells and the central storage tanks, on pipelines and on bulk loading installations at ports in the Persian Gulf and on the Mediterranean. A 16-inch pipeline, completed in 1949, was laid from Kirkuk to the Lebanese port of Tripoli, supplementing the 12-inch pre-war pipeline and providing a total capacity of 7.7 million tons a year. Another of 30-32 inches diameter was completed in 1952 from Kirkuk to Banias, in Syria, at a cost of £41 million and with a present annual capacity of 17 million tons. Another, over 1,000 miles in length and capable of pumping 15 million tons a year, was built from the Saudi Arabia fields to Sidon on the Mediterranean, saving the round trip of about 6,500 miles by tanker between the Persian Gulf and Suez.

The isolation of many Middle East oilfields has led to the spending of further large sums in the provision of living quarters and welfare services. Housing for employees and their families, schools, hospitals and clinics, also bring with them the

need for electricity, water supplies, roads and sewerage works. Training establishments have been set up where instruction is given to promising members of the indigenous populations.

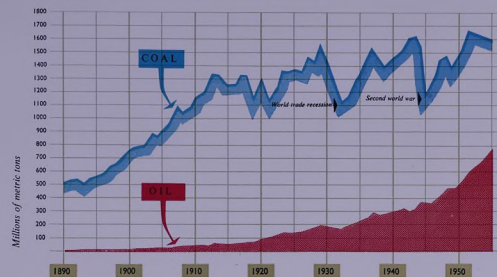
The extent of these capital works was such that several years passed before the results began to be felt. Prospecting in the meantime led to more important discoveries. In Southern Iraq, oil was struck at Zubair, near Basrah, in 1948. By 1951 this field had been connected to Fao, on the Persian Gulf, and within four years exports had reached a rate of 8 million tons a year. In 1953 further accumulations were confirmed in Iraq, at Rumaila, near Zubair, thus adding to the known resources of the Basrah concession. The process of exploration is being pursued with the help of the most advanced techniques of air and land survey, and it is now estimated that sixty per cent of the world's known resources exist in the Middle East.

This vast increase in crude oil supplies inevitably gave rise to another problem, the solution of which made demands on capital investment comparable

with that needed for extracting the oil from the ground and moving it to seaboard. Crude oil is of no intrinsic commercial value in its natural state but has to be refined in order to break it down into its constituent parts, before it becomes saleable as petrol, kerosene, diesel oil, fuel oil, lubricating oil, and bitumen, or can be used as a basic material for the chemical industry. Refinery design and construction is a highly specialised technique, and the modern refinery capable of processing several million tons of crude oil annually costs tens of millions of pounds sterling to build. To meet this problem a very large programme of new refinery construction was undertaken in Western Europe, which had previously relied on imported refined products, mainly from the Western Hemisphere.

Yet another large programme of capital construction resulted from the planned expansion of oil production. Oil has to be transported from the Middle East by sea, and it became clear that the tanker tonnage available in 1945 would be quite insufficient for the needs of the future. Although

Comparison of World Oil and Coal production



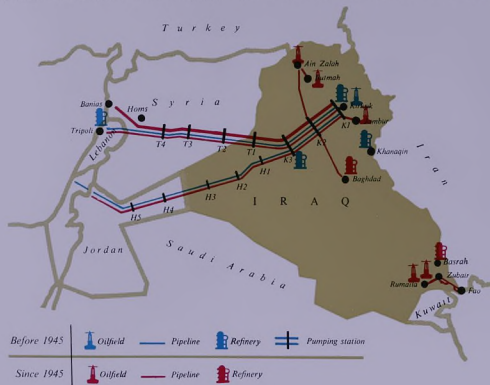
the early war losses of tankers had been made good in terms of world tonnage before the war ended, the replacements were of types designed for the needs of war. It was not until after the cessation of hostilities that the post-war trend to the 'super-tanker' emerged. Tanker construction was embarked upon on such a scale that in the years 1953 and 1954 launchings of tankers accounted for fifty-five per cent of the total tonnage of merchant shipping launched. At the same time the average size of tankers steadily increased, and many vessels now being laid down are of upwards of 35,000 tons deadweight.

enormously that by 1948 the United States had become a net importer of oil, consuming not only the major part of its own production but also large quantities imported from the Caribbean area. The refining capacity of the Western Hemisphere was therefore fully committed to processing supplies for domestic consumption. The urgent need for new refineries to process the increasing oil supplies from the Middle East was therefore met, as we have seen already, by an ambitious construction programme distributed throughout the countries of Western Europe. Whereas refinery capacity there had amounted to 16.8 million tons in 1939, development since the war has been so rapid that by the end of 1954 it had been increased to 110 million tons a year, and this progress still continues.

#### A market for oil

As European recovery gathered momentum the demand for oil products of all kinds created a valuable expanding market, of which the Middle East oil companies were quick to take advantage. A factor which had an important bearing on this development arose from the changing position of the United States in relation to the world oil industry. Consumption there had increased so

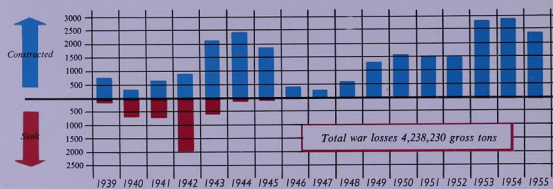
The United Kingdom now has the largest refinery capacity in Europe, with plants capable of processing over 29 million tons a year. Completely new refineries, such as that in the Isle of Grain, have been built, while existing installations, such as those at Fawley, Stanlow, Shell Haven, and Llandarcy, have been added to extensively so that each now processes over 3 million tons annually.



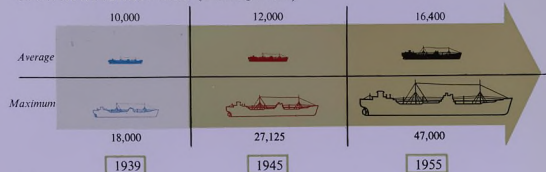
## World Tankers in service

Year	1939	1945	1955
Numbers	1571	1768	2693
Tonnage	16,600,000	21,668,000	39,015,000

## Allied and Neutral wartime losses compared with world tanker construction (1000s gross tons) 1939-1955

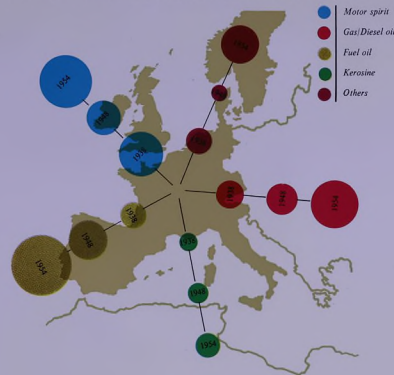


## Growth in tanker size (deadweight tons)



## Western European consumption of Petroleum products

Consumption rose from 27 million metric tons in 1938 to 75 million metric tons in 1954



France, with a capacity of nearly 27 million tons per annum, and Italy, with 24 million tons annual capacity, are the next largest, followed by Western Germany and the Netherlands, with annual refining capacities of 13 million tons and 12 million tons, respectively.

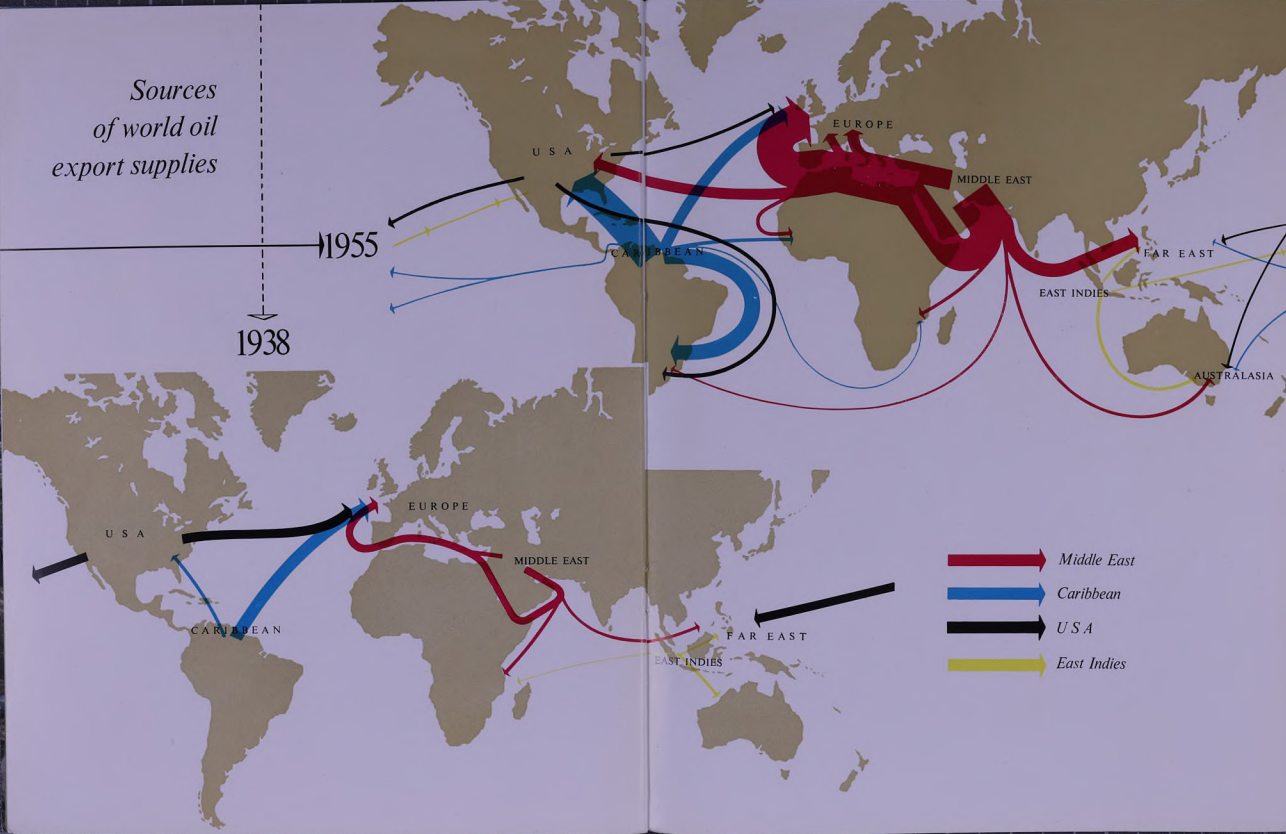
## Changes in demand

The development of production and refining capacity described above illustrates the scale on which the Middle East oil industry has reacted to its new opportunities in Western Europe. Equal initiative and resource have been displayed in the way it has adapted its marketing to deal with the changes in demand, as between types of oil

product, which have accompanied this expansion.

Consumption of oil products in Western Europe rose from a total of 27 million tons in 1938 to one of over 75 million tons in 1954, of which total over eighty per cent was supplied from Middle East sources. A simple breakdown of these figures reveals the interesting changes in the demand for particular types of oil product. An important development has been the growing use of fuel oil for industrial processes, particularly in certain branches of the iron and steel industry, while increasing quantities are used for the production of electricity and gas. Mechanisation of agriculture, primarily in the United Kingdom but now being adopted in other parts of Western Europe, has stimulated a greatly enhanced demand for

*Sources  
of world oil  
export supplies*



1955

1938

-  Middle East
-  Caribbean
-  USA
-  East Indies

## Refining capacity in Western Europe

(1000s metric tons)

 Before 1945

 Since 1945



diesel and gas oil. Passenger and commercial vehicle production has surpassed pre-war records and with this the fuel requirements have increased steeply. The pattern of demand, however, is changing towards a greater preference for the heavier diesel fuels for commercial transport vehicles, accentuated also by a tendency to more economical consumption of petrol by modern passenger vehicles. Trends in railway locomotion are likely to result in a large-scale change from coal-driven to diesel-driven locomotives where electrification is either uneconomic or impracticable. The demand for lubricants is almost a barometer of industrial expansion, while the steadily growing use of oil for domestic space heating points to a steady rise in the standards of living.

The developments enumerated above have brought others in their train. Much of the oil-producing equipment for the Middle East and the plant for refinery construction is now being manufactured in Western Europe, thus creating there a new industry which was largely the exclusive domain of United States manufacturers before the war. Tanker construction has meant prosperity for European shipyards, and the civil construction industries now have a large stake in important new fields of activity. Directly and indirectly, thousands of men and women have found employment and made their careers in the service of this vast oil industry. Millions more in Western Europe and in the Middle East benefit from its products and from the revenues which accrue to the producing countries.

