

From Central Planning Dept.

To MR. J.A. JAMESON

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File.FOR INFORMATION.THE OIL INDUSTRY IN 1951STATISTICAL REVIEW1. WORLD PRODUCTION 1951

There was a record increase of some 70 million tons in World Production in 1951 despite the suspension of Persian supplies in June, equivalent to a loss of about 20 million tons in the year. This loss was more than made up by increased production in Kuwait and Saudi Arabia so that the Middle East as a whole showed a rise of nearly 9 million tons.

	<u>1950</u> (mil. tons)	<u>1951</u>	<u>% change</u>	<u>Average</u> <u>1946-1951</u>
<u>WESTERN HEMISPHERE</u>				
U.S. (incl. Nat. Gasoline)	285.2	324.6	+ 13.8%	6.0% p.a.
Remainder N. America	13.9	17.3	+ 24.7%	17.1% "
Caribbean	86.2	97.5	+ 13.1%	9.5% "
Remainder S. America ..	5.8	6.2	+ 9.2%	5.5% "
<u>WESTERN HEMISPHERE TOTAL</u>	391.1	445.7	+ 13.9%	7.0% p.a.
<u>EASTERN HEMISPHERE</u>				
Western Europe	2.0	2.5	+ 23.8%	25.0% p.a.
Middle East	87.1	95.9	+ 10.1%	22.0% "
Far East	11.6	13.9	+ 20.0%	63.0% "
<u>EASTERN HEMISPHERE TOTAL</u>	100.7	112.3	+ 11.5%	24.9% p.a.
<u>WORLD, excl. U.S.S.R. etc.</u>	491.8	558.0	+ 13.4%	9.5% p.a.
<u>U.S.S.R. etc. (estimated)</u>	43.6	49.3	+ 13.1%	11.1% p.a.
<u>WORLD TOTAL</u>	535.4	607.3	+ 13.4%	9.7% p.a.

As a percentage increase this 13½% rise in World Production in 1951 is the highest recorded during any of the last twenty-five years, with the exception of 1947/48 (when it was 14.3%). It should also be compared with the average rate of growth -

- (a) Since the war (1946/51) 9.7% p.a.
 (b) The last 25 years ... 5.6% p.a.

In North America, outside the U.S.A., which is considered later, Mexican production increased only from 10.1 m.t.a. in 1950 to 10.8 m.t.a. in 1951, but Canadian production almost doubled from 3.8 m.t.a. to 6.5 m.t.a., mainly owing to the full use of the eastward outlet for Alberta crude by the inter-Provincial Pipeline.

Though the loss of Persian crude was made up by increased production elsewhere in the Middle East, the Caribbean regained its place as second largest producing area in the World.

Percentage of World Production Supplied by Areas
(excluding U.S.S.R. etc.)

	<u>1938</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>
U.S.A.	70.5%	60.1%	58.0%	58.2%
Caribbean ..	13.9%	17.5%	17.5%	17.5%
Middle East .	6.3%	15.8%	17.7%	17.2%
Rest of World	9.3%	6.6%	6.8%	7.1%

2. WORLD DEMAND 1950 (excluding U.S.S.R.)

It is not possible to break down World Demand with the same accuracy as World Production since no detailed figures are, as yet, available, except for the U.S.A.

Broadly, however, consumption, as crude equivalent, may have been as follows:-

	<u>1950</u>	<u>1951</u>	<u>% change</u>
	(mil. tons)		
U.S.A.	317	343	8%
Rest of Western Hemisphere	62	70	13%
Western Europe	63	72	14%
Rest of Eastern Hemisphere	52	68	30%

The demand for the Rest of the Eastern Hemisphere is a tentative balancing figure and includes military supplies not included elsewhere.

3. THE U.S.A. POSITION 1951

Imports/Exports

The official Bureau of Mines data for 1950 and 1951 in million tons are:-

	<u>Crude</u>		<u>Products</u>		<u>Total</u>	
	<u>1950</u>	<u>1951</u>	<u>1950</u>	<u>1951</u>	<u>1950</u>	<u>1951</u>
Imports	25.0	25.2	19.5	18.9	44.5	44.1
Exports ...	<u>4.5</u>	<u>3.9</u>	<u>10.0</u>	<u>16.7</u>	<u>14.5</u>	<u>20.6</u>
Net Imports.	20.5	21.3	9.5	2.2	30.0	23.5
	====	====	====	====	====	====

Contrasting 1950 and 1951, crude imports and exports hardly altered, products imports declined very slightly, but products exports rose sharply on suspension of shipments from Abadan.

Net imports were therefore less in 1951 than in 1950, but with growing refinery capacity in Western Europe and elsewhere the call for product exports should diminish and net imports therefore rise again in 1952. The Bureau of Mines' forecast is that net imports will reach 33 million tons in 1952.

Exploration

The number of wildcats increased to 10,302 (1950 - 8,554 wildcats) but with a slight, though probably significant, decline in the percentage of successful oil and gas wells.

Percentage of successful wildcat oil and gas wells

<u>1948</u>	<u>1949</u>	<u>1950</u>	<u>1951</u>
18.6%	17.8%	17.7%	17.3%

The total number of wells drilled was 44,516 (1950 - 43,279 wells) with the average depth also increasing to 3,871 feet (1950 - 3,680 feet). There was a continuing trend to deeper drilling as shown by the number of wells drilled below 12,500 feet in the last three years, namely 1949, 137; 1950, 157; 1951, 240.

Most successful exploration has been in the Spraberry Trend of West Texas which is being compared in size with the East Texas Field.

Proved Reserves of Crude Oil

The estimates of Proved Reserves again increased by some 491 m.t. to a figure of 3,650 m.t. The gain of Reserves over the year's production of 303 m.t. was thus 188 m.t.

Texas, at the end of 1951, held about 56% of the Proved Reserves of the U.S.A., having obtained 78% of the increase in Proved Reserves over the year.

U.S. Production

Crude production increased by 13.8% to a new record of 303.5 m.t.a. over the previous annual record in 1948 of 272.4 m.t.a.

The Americans claim that since 1949 and despite the big growth in production, "reserve productive capacity" has been maintained at around 55 million tons. This is the increase in production from existing wells at maximum efficient rates which would be possible subject to conservation policies, adequate crude oil prices for marginal supplies and some completion of facilities.

The Forward Position

The official Bureau of Mines forecast for 1952 anticipates increases in:-

Domestic Supply - crude	3.3%	natural gasoline	6.3%	total	3.5%
Domestic Demand -				total	7.3%

Increased exploration drilling activity throughout the U.S.A. is planned for 1952. The greatest effort will be in West Texas where the popular objective will be fractured reservoirs similar to that of Spraberry. Greater attention is also, however, now being paid to the basins east of the Rockies. In these basins thicker sediments necessitate deeper drilling and the structures are less obvious at surface than in the anticlinal areas which surround the basins and have hitherto claimed most attention. Production was proved in the Williston Basin of North Dakota in 1951 and "basin play" is a slogan which will be increasingly popular in 1952.

U.S. Prices

Following the "price freeze" applied at the end of 1950, the Office of Price Stabilisation has worked out and enforced official "ceilings" which have virtually held prices for both Crude and Products in the U.S.A. at the level ruling in December 1950.

This artificially imposed rigidity has removed one of the normal corrective forces against disequilibrium between supply and demand, namely the normal incentive which refiners have, through price adjustments, to boost the yields of residuals and the middle distillate heating oils to meet the seasonal increase in demand.

The official ceiling for fuel oil on the East Coast made it cheap in comparison with coal and so artificially stimulated demand. However, coastwise tanker freights were not frozen and rose sharply above the level on which the official ceiling had been calculated, making it comparatively uneconomic to sell heating oils in that important market. But for a relatively mild winter this might have precipitated a serious crisis.

Amendments to the official ceiling had indeed to be made in the case of Navy Special Fuel Oil in order to avoid disruption of supplies.

In the case of Aviation Gasoline the general ceiling was not raised but, to encourage production to offset the loss of Abadan output, "special dispensations" had to be made to cover the high cost of restarting or increasing throughput in marginal high cost plants and uneconomic hauls to seaboard from inland refineries. So numerous have been these "special dispensations" that virtually all the marginal export demand has had in practice to be covered at a premium of the order of 4 cents per gallon over the official published price of 16 cents.

4. THE MIDDLE EAST POSITION IN 1951Production

	<u>1950</u>	<u>1951</u>	<u>% change</u>
	(mil.tons)		
Persia	31.8	16.2	- 49%
Kuwait	17.0	27.8	+ 64%
Iraq	6.4	8.3	+ 30%
Qatar	1.6	2.2	+ 37%
Neutral Zone	Nil	Nil	-
Saudi Arabia	26.5	37.6	+ 42%
Bahrain	1.5	1.5	-
Egypt	2.3	2.3	-
TOTAL	87.1	95.9	+ 10%

Division of Production according to shareholding

The distribution of production amongst the Oil Companies according to their shareholding interest may be noted as follows, with the Gulbenkian share of the I.P.C. oil divided equally amongst the other partners. The A.I.O.C. share includes Khanaqin production and Royalty oil from Kirkuk, but excludes any crude from Egypt.

	<u>1950</u>		<u>1951</u>	
	<u>Total Oil</u>	<u>% of Total</u>	<u>Total Oil</u>	<u>% of Total</u>
A.I.O.C.	41.8	48.0%	33.55	35.0%
Shell	4.1	4.7%	4.65	4.8%
U.S. Companies	39.4	45.2%	55.35	57.7%
C.F.P. ...	1.8	2.1%	2.35	2.5%
	87.1	100%	95.9	100%
	====	====	====	====

Owing to the suspension of Persian shipments American interests controlled almost 22 million tons more oil produced than the A.I.O.C.

The Zubair oilfield, Basra, Iraq, shipped its first cargo of oil in December 1951 from the pipeline outlet at Fao.

In the Kuwait/Arabia Neutral Zone, the Aminoil test at Fuwaris was abandoned but plans are in hand to drill a test nearer the coast, presumably influenced by the Aranco success in their test at Ras Safaniya, just offshore and to the south.

The Superior/Central Mining concession around Qatar has been surveyed but no drilling has been attempted.

Middle East Crude Oil Prices

The introduction towards the end of 1950 by Socony-Vacuum of a published price list for Middle East crude

oils has been further extended during 1951. The schedules issued by Socony now cover all the main export grades of Middle East crude of which Socony is a producer either directly or through subsidiaries. The schedule is now as follows:-

<u>Crude Oil</u>	<u>Gravity A.P.I.</u>	<u>Loading Port</u>	<u>Price per bbl.</u>
Arabian	36°	Ras Tanura	\$1.75
Qatar	37°	Umm Said	\$1.77
Iraq/Zubair	32°	Fao	\$1.67
Iraq/Kirkuk	36°	Tripoli	\$2.41
Arabian	36°	Sidon	\$2.41

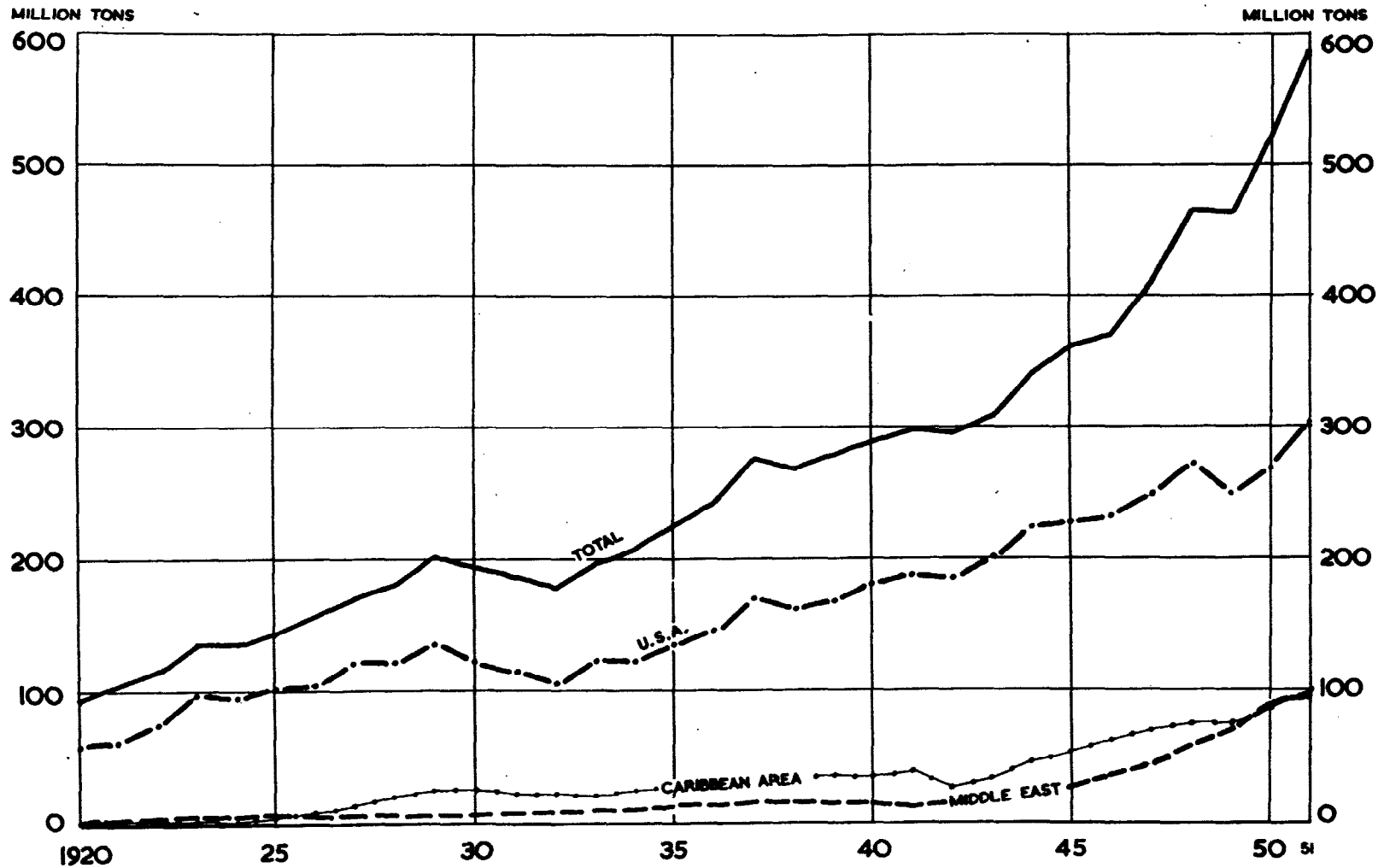
The prices are those generally practised at present by all other companies although so far none has followed Socony in actually publishing its own price list.

The difference in price between Arabian crude at Ras Tanura and at Sidon is apparently based on the Broker's Award Time Charter Rate ruling at the time of the commissioning of TAPLine. At the end of 1951, however, the Award Rate was 47/6d p.d.w.t. and at this rate, for buyers moving Arabian crude to Western destinations, the Sidon price was more attractive than the Ras Tanura price by some 15/- per ton (28 cents/bbl.)

(Sgd.) G. H. Coxon.

Copies issued to:

The Chairman		
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Mr. J.A. Jameson	Mr. R. Gillespie	
Mr. N.A. Gass	Mr. H.E. Snow	
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WORLD
CRUDE OIL
PRODUCTION
1920 — 1951