Address on the Secondary Recovery Methods of Oil*

by Leo W. Stach**

The policy of General Macarthur's Natural Resources Section, as far as the petroleum and natural gas producing industries are concerned, has always been to help maximize the production of these resources in Japan and thereby aid in restoring the economic balance in Japan by reducing her dependence on imported petroleum products. As a means of achieving this objective the PRDPC was established by the Mining Bureau in Jan. 1947 on the recommendation of NRS.

During the past five years NRS has provided technical advice and guidance for the development of an intensive exploration program for the discovery of new reserves through the medium of the PRDPC. As a result of the earnest cooperation of the industry with the PRDPC, Japan's proved reserves of crude oil are nearly double what they were in 1945 and the production of crude oil has now reached a level higher than anyone expected four years ago.

For the most efficient means of exploiting these new reserves constant attention has been paid to increasing the speed and efficiency of drilling and production methods with the result that wells are now drilled and completed in less than half the time it took four years ago.

During the past year and a half our attention has turned to the possibilities of recovering, by using the specialized methods of secondary recovery developed in the United States, the large percentage of residual oil that still remains in the depleted reservoirs of Japan's old fields.

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Already some experimental work in secondary recovery was begun recently, partly as a result of the visit of Japanese petroleum technologists Professor Uwatoko and Mr. Sawatari to the United States, and under the general guidance of petroleum engineers of NRS. However, we decided that, because secondary recovery may be a very important factor in the future, in maintaining and increasing Japan's production of crude oil, the best possible advice should be obtained to start the secondary recovery program on the soundest possible basis.

Accordingly we have acquired the services, for a period of three months, of Professor Somerton of the University of California who is one of the foremost authorities on secondary recovery in the United States and the leading authority on secondary recovery in Californian oilfields, which are more nearly similar to those of Japan than any other of the oilfields of the United States.

I will therefore now introduce to you Dr. Somerton, who will outline briefly to you the principles underlying secondary recovery of oil from depleted reservoirs.

(以下に掲げるのは上の譯文である)

二次回収採油法實施についての挨拶

總司令部天然資源局石油課

ス タ ツ ク

石油及び天然ガス鑛業に關する總司令部天然資源局の政策は常に日本に於けるその生産を最大限度に擧げることの助力に終始して居ります。然してそのことは日本の石油の輸入を低減し引いては經濟安定の一翼となるのであります。

此の目的達成の1つの方法として資源鑛山局に於ては天然資源局の指示に基き石油資源開發審議會を1947年設置することになりました。然して終戦後過去5年間天然資源局は石油資源開發審議會と共に新油田の發見に對し、最善の探鑛開發の進展に助言と指導とを盡して來ました。

處で、石油資源開發審議會並びに熱心なる石油業界の協力の結果日本の石油資源は1945年に達して居た量よりも約2倍の量を確保するに到り、原油の生産量は4年前には嘗て豫想し得なかつた水準に迄に今日に於ては達して居ります。

是等新しい油田の開發に際しては常にその最も能率の高い開發の方法として迅速なそして能率の高い掘鑿並びに採油方法の改良に注意を拂はれて來ました。その結果今日に於ては4年前に比較して油井の掘鑿完成は約半分の時日で出来るようになって居ります。

更に過去1 兩年間、天然資源局としては今日米國油田に於て實施せられて居る二次回收採油法を實施して日本の古い油田の生産油の少くなつた油層の中にも未だ可成り多量に残されて居る石油の回收の可能性に就いて注意を拂つて來て居ります。然して東大上床教授並びに帝國石油株式會社の佐渡副部長等の渡米石油鑛業の視察の結果に基き又天然資源局技術者の指導とによつて既に二次回收採油法の實施試験が一部開始せらるるに到つて居ります。

然しながら、日本に於ける二次回收採油法は日本の産油の保持と増産に對し將來極めて重要な要素の一つとなるので、天然資源局としてはその實施に際しては確實なる基礎に立脚して將來可能性のある最善の忠言をしたいと決心して居ります。

從つて左様な次第でありますので我等としてはカリフォルニア大學のサマー-ton 教授を3ヶ月間の豫定にて招聘して此の仕事に盡して貰ふことになりました。同教授は米國に於ける二次回收採油法に關する最高の權威者であり、且つ米國油田中日本油田に最も類似して居るカリフォルニア油田に於ける二次回收採油法の指導者であります。

只今からサマー-ton 博士を御紹介して同博士から枯渇油層の二次回收法の理論と實施に就いて御話願ふことに致します。 (上床譯記)

雜 報 1

Science Museum Library からの禮狀 去年の10月 London の Science Museum Library の要請によりに石油技術協會誌 (Vol. 15, Nos. 1~5) を送つたところ、次の如き丁寧な禮狀が届いたのでここに披露する。

2nd December, 1950

Sir,

I am directed to inform you that the Minister of Education has much pleasure in accepting the publications set out herein which you have been so good as to present to the National Collections in the Science Museum Library. I am to convey to you his best thanks for the gift.

I have the honour to be, Sir,

Your obedient Servant,

The Secretary,

Director and Secretary.

The Japanese Association of
Petroleum Technologists.