

A Canadian Achievement



*The Delivery of Alberta Crude Oil
at Sarnia, Ontario*

APRIL 24th, 1951



IMPERIAL OIL LIMITED

WHEN the Imperial Leduc steamed into Sarnia on her maiden voyage she symbolized a story of Canadian achievement. On her prow was the name of the small Alberta town of Leduc where an oil driller's bit in 1947 changed the economic map of Canada. In her vast tanks was the first cargo of Alberta crude oil to reach Ontario—crude which had travelled nearly 1,800 miles under the prairies and across the lakes to the area which cradled the oil industry in Canada almost a century ago.

During that century Canada has grown from a colony to a nation. The oil industry has grown with it and contributed immensely to the improvements in our way of life, improvements that today we take for granted.

Since the new discoveries in the west only four years ago the growth of the industry has been quickened and its contribution to the strength of Canada has greatly increased. The delivery of western oil to Ontario is an event of country-wide importance.

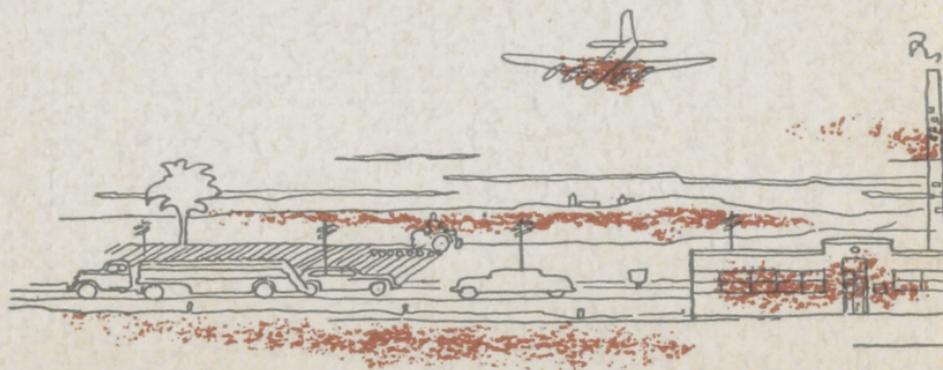
For a Stronger Canada

The delivery of western crude oil to Ontario brings many benefits to Canada. It lessens our dependence on outside sources of oil. It saves foreign exchange. It means that money which once went elsewhere for oil is now being spent in our own west. It makes Canada surer of its essential oil supplies in peace or war.

Even before a barrel of crude oil was pumped off the Imperial Leduc at Sarnia dock, these benefits had been felt. Before getting that barrel ashore the oil industry had spent about half a billion dollars—exploring for new fields, developing existing fields and building the transport system which brought the oil to the east.

The money found its way into the pockets of Canadians from coast to coast. There was more business, new jobs and new industries.

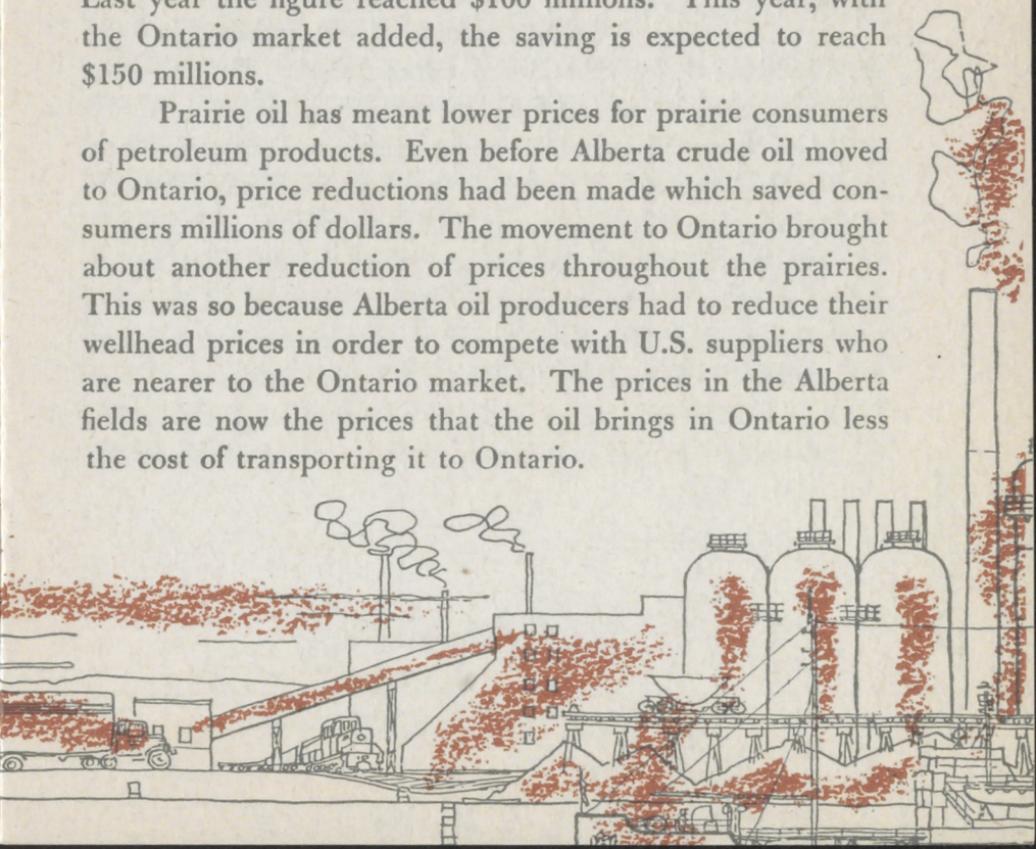
Just four years ago Canadian wells could supply less than one tenth of the oil this country needed. The rest had to be bought abroad. The new discoveries have improved this



situation. This year about a third of all the oil used in Canada will come from Canadian fields.

All Canadians have benefited from the savings of United States funds which formerly were used to import crude oil. In 1948 these savings amounted to nine million U.S. dollars. Last year the figure reached \$100 millions. This year, with the Ontario market added, the saving is expected to reach \$150 millions.

Prairie oil has meant lower prices for prairie consumers of petroleum products. Even before Alberta crude oil moved to Ontario, price reductions had been made which saved consumers millions of dollars. The movement to Ontario brought about another reduction of prices throughout the prairies. This was so because Alberta oil producers had to reduce their wellhead prices in order to compete with U.S. suppliers who are nearer to the Ontario market. The prices in the Alberta fields are now the prices that the oil brings in Ontario less the cost of transporting it to Ontario.



Finding the Oil



In four brief years the Canadian oil industry has changed almost beyond recognition. But recent events are only the climax of a story which began millions of years ago.

Ancient seas once covered parts of Canada which now are dry land. In those seas millions of tiny creatures lived and died. Their remains fell to the sea bottom and over the years were covered with silt which hardened into rock. Under tremendous pressure and heat during long ages of time the remains turned into oil. Some of that oil is now flowing from Alberta's wells.

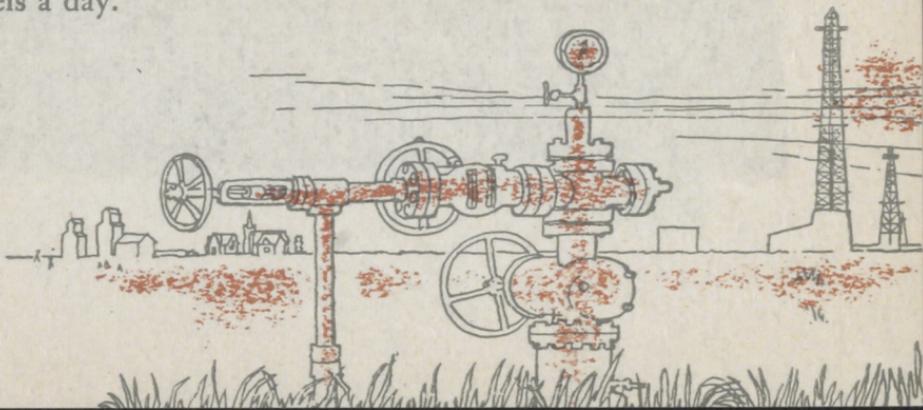
It is only where the old seas existed that oil is found. All 10 provinces contain areas encouraging to the oil prospector but the most attractive areas are in western Canada and it is there the oil seekers have been most successful.

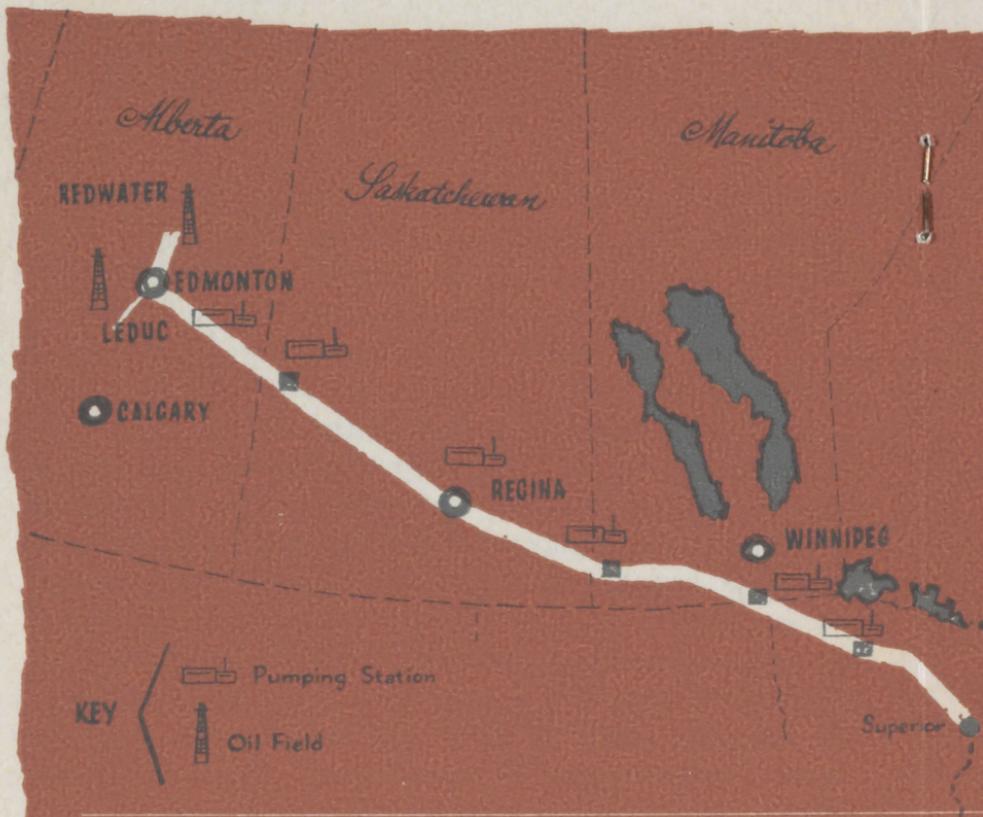
But only four years ago—at the beginning of 1947—the oil seekers in the west looked back on years of costly dis-

appointment. The Turner Valley field in the Alberta foothills, which had been discovered in 1914, was then past its peak. Imperial alone had spent more than \$23 millions looking for oil fields. It had drilled 133 exploratory wells, all failures.

The 134th wildcat was Imperial Leduc No. 1 near the little town of Leduc 20 miles southwest of Edmonton. It looked no better or worse than dozens of other wells. Yet this one well changed the picture completely and from it sprang the developments which now have brought Alberta crude to Ontario. Imperial Leduc No. 1 proved that a major field could be found on the plains, and touched off the greatest oil search in Canada's history.

As a result, Redwater, Golden Spike and Stettler, all major fields, and many smaller fields have since been found. Known oil reserves in the Prairies before Leduc were 44 million barrels. Now they are well over one billion; Alberta production has increased from 20,000 barrels a day to a potential 175,000 barrels a day.





Oil Spans the Prairies and Lakes



Getting the Oil to Market



As the search pressed on, western oil production grew. The oil first satisfied Alberta's needs, then the needs of the prairies. There it stopped, for low-cost transport was needed to move the oil into wider markets.

Hauling it by rail was not economical for the freight costs to British Columbia or Ontario were too much. The answer was to build a pipe line.

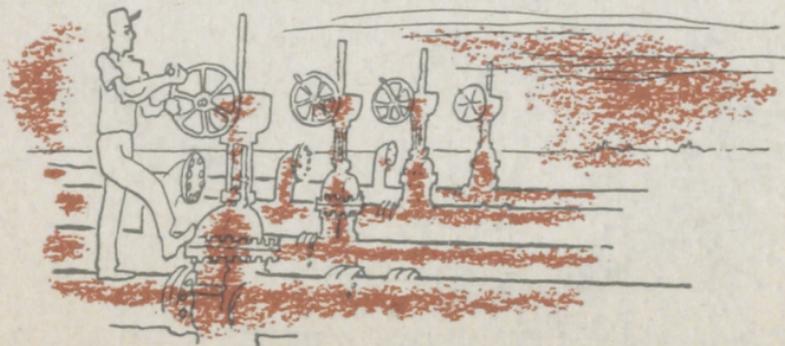
The pipe line planners first asked themselves where the line should go.

To the west the Rocky Mountains were a formidable barrier. To the east lay the flat prairies, ideal for the mechanized equipment that pipe line builders use. And beyond the prairies the Great Lakes would afford cheap tanker transport for the oil to the large Ontario market. It was estimated that the shortest line from the oil fields to Lake Superior would cost \$90 millions.

Time was pressing. The discovery wells of the Leduc and Redwater fields soon were surrounded by dozens, then scores, then hundreds of other wells. Production had to be held down to the needs of prairie refineries until the pipe line could take the oil to new markets. The line had to be completed at top speed.

And completed it was, in record-breaking time. Imperial sponsored the Interprovincial Pipe Line Co., in which it holds a minority interest, to build and operate the line. Scarce steel was found—177,000 tons of it. Some of the pipe was rolled in a Canadian mill especially built for the purpose. The making of pipe insulation and other supplies also brought new industry and employment. On the line itself between 1,000 and 1,500 men and women tackled the job and in 150 working days the line spanned the 1,126 miles from the oil fields to Lake Superior.

By December of last year Alberta oil flowed into storage tanks at Superior to await opening of navigation this spring.

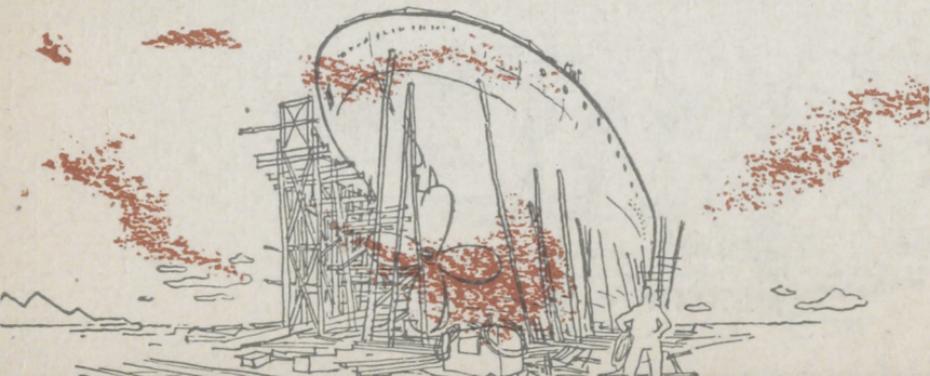


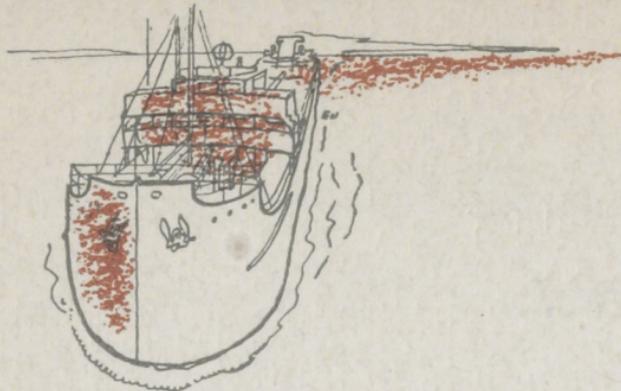
The Ships

The pipe line could deliver oil to Superior but big, fast tankers were needed to carry it another 660 miles across the lakes to Ontario refineries. In March, 1950, the keels of the two largest freshwater tankers in the world were laid at Collingwood and Port Arthur. The Imperial Leduc was launched Nov. 4 and the Imperial Redwater Nov. 18. Recently the Imperial Leduc passed her running trials successfully and became the first ship to carry oil from Superior to Sarnia.

These tankers each will carry about five million barrels a season. They can make a round trip between Sarnia and Superior in five days, steaming at 13 knots. At Superior they will load at the rate of 20,000 barrels an hour, and they will each hold 115,000 barrels or 4,025,000 gallons. That much gasoline would be enough to drive the average car around the world 3,000 times.

The ships, which cost about \$4 million apiece, were built entirely by Canadian labor and the materials in them are 95 per cent. Canadian. Each ship will carry a crew of 36 men and





accommodations are exceptionally good. Not more than two men will share a cabin, and there are recreation rooms for officers and men.

The most modern navigation aids and fire-fighting equipment have been installed. A public address system enables the officer on watch to speak with any member of the crew.

The ships' dimensions are: length, 620 feet; breadth, 68 feet; depth, 35 feet; deadweight tonnage, 15,800; horsepower of engines, 4,500; capacity of pumping equipment, 15,000 barrels per hour. Not only are they the world's largest lake tankers, but they are also the largest tankers ever built in Canadian shipyards.

The ships were designed by Imperial marine architects and are owned by Pipe Line Tankers Ltd. Imperial will charter them for 15 years, and then take them over.

In March this year the keel of a sister ship to these tankers was laid at Collingwood. This ship is scheduled for delivery in the spring of 1952.

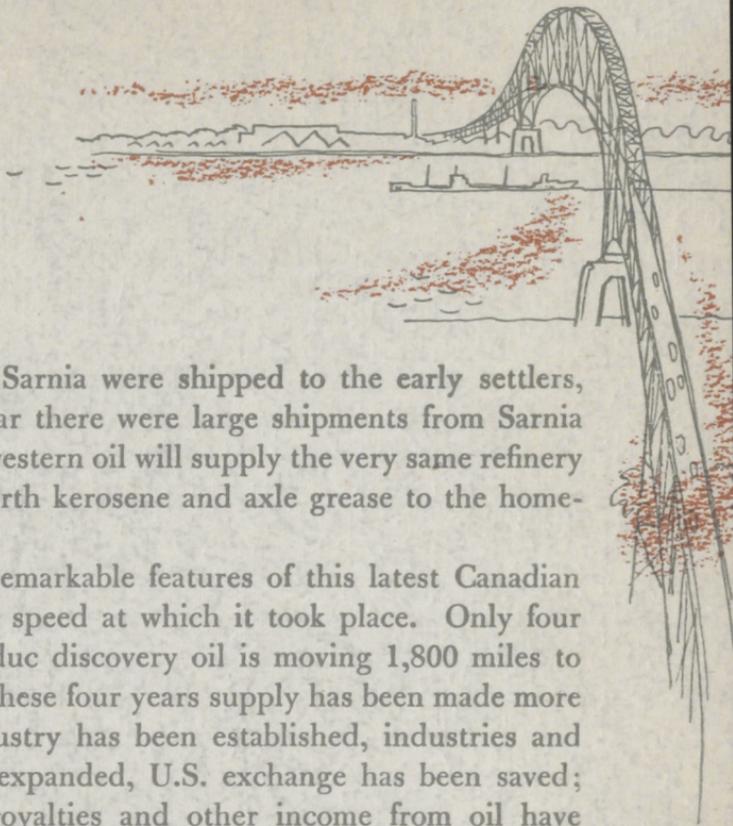
The Market

The tankers are bringing their cargoes to the area where the Canadian oil industry was born a century ago. It was in the 1850's—the precise date is unknown—when Canada's first oil men began working the "gum beds" near what later became the town of Petrolia, near Sarnia.

From the gum the pioneers distilled a burning oil, and later they dug or drilled to the rock below to get more of the oil. Later drilling made Ontario a leading oil producer of those times and small refineries sprang up to process the oil. The market then was burning oil (now kerosene) and gasoline was a nuisance, hard to get rid of and dangerous to handle.

But even before the gasoline era, Ontario demand had outstripped production which never exceeded one million barrels a year—about a week's current output from Alberta. Until Alberta crude arrived on the scene, U.S. sources supplied most of the 120,000 barrels used daily in Ontario.

With Alberta oil moving eastward to Ontario the Canadian supply pattern is reversed. When the west was young, oil



products made in Sarnia were shipped to the early settlers, and up till last year there were large shipments from Sarnia to the west. Now western oil will supply the very same refinery which once sent forth kerosene and axle grease to the homesteaders.

One of the remarkable features of this latest Canadian achievement is the speed at which it took place. Only four years after the Leduc discovery oil is moving 1,800 miles to a new market. In these four years supply has been made more secure, a new industry has been established, industries and employment have expanded, U.S. exchange has been saved; and in the west royalties and other income from oil have increased government revenue while price reductions have saved millions of dollars for farmers and other users of petroleum products.

When the Imperial Leduc steamed into Sarnia with her first cargo of Alberta oil she symbolized an achievement which will be recorded as a milestone in Canada's progress.

