CANADA DEPARTMENT OF MINES AND RESOURCES

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HON. T. A. CRERAR, MINISTER; CHARLES CAMSELL, DEPUTY MINISTER

MINES AND GEOLOGY BRANCH John McLeish, Director BUREAU OF MINES W. B. TIMM, CHIEF

# PETROLEUM FUELS IN CANADA

**Deliveries for Consumption** 

**Calendar Year** 

1935

Prepared by John M. Casey



(Issued by the Bureau of Mines, Department of Mines and Resources, in Co-operation with the Dominion Fuel Board)

Price, 10 cents

No. 780

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## PETROLEUM COKE

34643—1}

## PETROLEUM FUELS

For some years the Mines Branch, now known as the Bureau of Mines, has been collecting information respecting the deliveries of fuel oil, kerosene, and petroleum coke in Canada, in order to ascertain what amounts of these commodities were being delivered to be used as fuel for steamraising, for heating, and for power, as distinguished from the amounts delivered for other miscellaneous uses.

During the calendar year 1935, deliveries of petroleum products for fuel amounted to 1,056, or, including the 52 consumed in refineries, to 1,108 million Imperial gallons, consisting of 499 of fuel oil, 35 of kerosene, and 574 of gasoline; about 80 thousand short tons of petroleum coke were also delivered (and consumed in refineries) for fuel.

The weight of these various volumes of fuel can only be estimated in the absence of precise information regarding the specific gravity of the numerous grades of oil under each class. Assuming specific gravity ratings of 0.933 for fuel oil, 0.810 for kerosene, and 0.738 for gasoline, there were about 2.33 million short tons of fuel oil, 0.14 million tons of kerosene, and 2.12 million tons of gasoline delivered for fuel during 1935.

Disregarding the question whether or not these be replaceable by coal, on the basis of the relative calorific values of petroleum products and of coal, it is estimated that the total *heat value* of each class of products is equivalent to the latter in the following amounts: fuel oil, to 3.33; kerosene, to 0.22; gasoline to 3.26; and coke to 0.09 million short tons, or an aggregate of slightly less than seven million tons of coal.

The following comparative summaries show: (1) the gallonages of petroleum fuels marketed in Canada during the calendar years 1934 and 1935, together with their estimated weights and coal equivalents; and (2) the amounts distributed in each of the provinces.

## TABLE I

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	Cal	endar Year	1935	Calendar Year 1934			
Class	Imperial gallons	Rated weight, *tons	Rated heat values (in coal), **tons	Imperial gallons	Rated weight, *tons	Rated heat values (in coal), **tons	
Fuel oil Kerosene Gasoline Coke	†499 35 574	$2.33 \\ 0.14 \\ 2.12 \\ 0.08$	3.33 0.22 3.26 0.09	†479 36 535	2·23 0·15 1·97 0·06	3 · 25 0 · 23 3 · 03 0 · 07	
Total	†1.108	4.67	6.90	+1.050	4.41	6.58	

Petroleum Fuels Marketed in Canada, by Classes (Units: Millions of gallons and of short tons)

†Includes refinery consumptions: of 52 in 1935, and 54 in 1934.

•	Specific	Degree	Weight	Gravi	ty range of each class
	gravity	A.P.I.	-	Specific gravity	Degree A.P.I.
			9•33 lb./gal.	1.000 + to 0.818	or 10°-to 41° Fuel oil
		or 43.2° or			or 42° to 47° Kerosene
Gasoline	at 0.738	or 60.0° or	7.38 "	0.760 to 0.680	or 55° to 77° Gasoline
The	egree $A P$ .	I. refers to the	reading on the E	Baumé specific gravity s	cale adopted as standard
hrethe A	mariaan Da	Inclours Inchi	tute and widelar	man of the first start of the	-

by the American Petroleum Institute, and widely used in the oil trade. \*\*Rates of conversion—Calorific values, in B.T.U.'s per pound, are rated ns follows: fuel oil at 19,000, kerossne and gasoline at 20,000, coal at 13,000, and petroleum coke at 15,000.

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## TABLE II

## Petroleum Fuels Marketed in Canada, by Provinces

(Calendar years-Million Imperial gallons-Thousand short tons of Coke)

Province	Fuel oil†	Kerosene	Gasoline‡ (motor fuel)	Total†	Per cent	Petro- leum coke
1935 N.B. and P.E.I Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta and N.W.T. B.C, and Yukon.	$\begin{array}{c} 10\\ 28\\ 135\\ 74\\ 12\\ 21\\ 18\\ 149\end{array}$	2 2 5 8 3 8 5 2	$18 \\ 22 \\ 102 \\ 273 \\ 29 \\ 39 \\ 48 \\ 43$	30 52 242 355 44 68 71 194	3 5 23 84 6 7 18	0.6 2.4 67.3 6.0 3.6
Total	447	35	574	1,056		79.9
Per cent	42	3	55		100	·····
1934 N.B. and P.E.I Nova Scotia. Quebeo. Ontario. Manitoba. Saskatchewan. Alberta and N.W.T. B.C. and Yukon.	11 33 123 85 9 11 17 136	. 2 2 5 9 4 6 6 2	17 20 93 253 28 37 45 42	30 55 221 347 41 54 68 180	<b>8</b> 6 22 35 4 5 7 18	Nil 0·3 1·3 36·2 Nil 13·7 2·5 2·4
Total	425	36	535	996		56.4
Per cent	42	4	54		100	
1933 N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta and N.W.T. B.C. and Yukon.	6 23 111 70 6 10 11 131	2 2 6 10 4 8 9 1	15 19 87 228 24 32 40 39	23 44 204 308 34 50 60 171	2 5 23 34 4 6 7 19	$\left. \begin{array}{c} 0.4 \\ 2.2 \\ 61.5 \\ Nil \\ 18.1 \\ Nil \end{array} \right.$
Total	368	42	484	8 <b>94</b>		82.2
Per cent	42	4	54	· · · · · · · · · · · · · · · · · · ·	100	
<b>1932</b> <b>Total</b> Per cent	<b>389</b> 41	<b>45</b> 5	5 <b>01</b> 54	<del>9</del> 35		93.8
1931 Total	399	52	556	1,007		80.2
Per cent	40	5	55		100	
193 <b>0</b> Total	425	45	582.	1,052		
Per cent	40	4	56		100	• • • • • • • • • •

Data exclude 52 million gallons of fuel oil consumed in oil refineries during 1935, 54 in 1934, 56 in 1933, 53 in 1932, 55 in 1931, and 59 in 1930. ‡Gasoline data are quoted from the Dominion Bureau of Statistics annual reports on The Highway and Motor Vehicle in Canada.

#### FUEL OIL

## DELIVERIES

The data on petroleum fuels under the headings of fuel oil, kerosene, and coke were prepared from reports submitted by firms engaged in the oil trade, namely: refiners' marketing departments, oil brokers and jobbers, and also from information received from known importers and consumers of similar products from abroad. Care was taken to avoid possible gallonage duplication, and also, when necessary, to apportion the total amounts reported to their separate usages.

For the generation of heat or power, all grades of hydrocarbons from gaseous to solid are burnt as fuel, but in the trade the term "fuel oil" is restricted to the heavier liquids so used, which although safe as regards fire or explosion, are sufficiently fluid for flow under conditions of use. Tentative standard specifications of the various grades of fuel oil in commercial use are not based on specific gravity, but for the purpose of this report, it is desirable to group under the generic term "fuel oil" all grades of petroleum or its products used as fuel that are heavier than 42° A.P.I. Oils under this heading are described in the trade as "heavy", "medium", or "light" oils, and are delivered largely for steam-raising, power, and for heating. Residual, bunker, and Diesel grades are included with the heavy oils; medium oils consist mostly of furnace and semi-Diesel grades; while light oils also include gas-oil, distillate, stove and range grades. In so far as they have been reported, these last three were not always sharply defined from kerosene. Discard and waste oils heavier than 42° A.P.I., whether re-refined or not, are excluded from the data.

Kerosene or "refined oil of petroleum" consists of the white or amber grades ranging between 42° and 47° A.P.I., and generally sold for small heating and lighting, or for use in the heavier type of automotive or other internal combustion engine. For the purpose of this report, this term includes distillate oils falling within this range.

Gasoline, or otherwise-named light gravity fuel, comprises all grades having 55° A.P.I. or lighter as their gravity limit, and is sold extensively for light automotive and aerial work.

A summary statement follows in Table III showing deliveries of fuel oil in the provinces during each of the past three years as reported by distributors and importers. Over 85 per cent of the 1935 total was processed in Canadian refineries, the remainder consisting of imported fuel oil. This table is amplified in Table IV, which records the portions delivered to a category of consumers for specific uses. In 1935, domestic heating contributed over 24 per cent of the total; industrial heating and power over 26 per cent; tractor fuel, over 7 per cent; and fuel for rail and water transportations, over 41 per cent.

34644-21

## TABLE III

## Comparative Summary of Fuel Oil Deliveries, by Provinces

(Prepared from distributors' and importers' reports-Imperial gallons-Calendar years)

Area	Product of Canadian refineries	Product of foreign refineries (importa- tions)	Total fuel oil delivered †		Respecti ercentag of tota	ges	*Inventory December 31
1935							
N.B. and P.E.I Nova Scotia Quebee Ontario Manitoba Saskatchewan Alta. (and N.W.T.). B.C. (and Yukon)	9,478,594 28,524,267 119,932,749 73,854,736 12,427,920 20,643,799 16,624,594 99,567,910	$108,343\\1,037\\14,612,482\\463,274\\113,953\\357,048\\947,137\\49,368,884$	9,586,937 28,525,304 134,545,231 74,318,010 12,541,873 21,000,847 17,571,731 148,936,794	2.1 6.4 26.8 16.5 2.8 4.6 3.7 22.3	0.1 3.3 0.1  0.1 0.2 11.0	$\begin{array}{c} 2 \cdot 2 \\ 6 \cdot 4 \\ 30 \cdot 1 \\ 16 \cdot 6 \\ 2 \cdot 8 \\ 4 \cdot 7 \\ 3 \cdot 9 \\ 33 \cdot 3 \end{array}$	3, 332, 905 7, 638, 323 50, 435, 564 64, 915, 613 1, 664, 344 6, 933, 976 3, 562, 875 20, 110, 838
Total	381,054,569	65,972,158	447,026,727	85.2	14.8	100.0	158,594,438
1934							
N.B. and P.E.I Nova Scotia Quebec Ontario Manitoba Saskatohewan Alta. (and N.W.T.). B.C. (and Yukon).	$\begin{array}{c} 10,841,573\\32,993,611\\114,026,526\\83,669,761\\8,544,927\\10,314,479\\15,608,174\\91,444,403 \end{array}$	$\begin{array}{r} 340,360\\ \mathrm{Nil}\\ 9,293,682\\ 1,454,105\\ 131,308\\ 328,060\\ 919,128\\ 44,970,549\end{array}$	$\begin{array}{c} 11,181,933\\32,993,611\\123,320,208\\85,123,866\\8,676,235\\10,642,539\\16,527,302\\136,414,952\end{array}$	2.6 7.8 26.8 19.7 2.0 2.4 3.7 21.5	0.1 Nil 2.2 0.3  0.1 0.2 10.6	2.7 7.8 29.0 20.0 2.0 2.0 3.9 32.1	$\begin{array}{r} & & & \\ 1,627,752 \\ 9,427,811 \\ 46,623,275 \\ 63,525,973 \\ 1,842,370 \\ 4,901,071 \\ 1,271,794 \\ 20,929,234 \end{array}$
Total	367,443,454	57,437,192	424,880,646	86.5	13.5	100.0	150,149,280
1933							
N.B. and P.E.I Nova Scotia Quebec Ontario Manitoba. Saskatchewan Alta. (and N.W.T.). B.C. (and Yukon)	5,444,288 23,281,226 92,117,908 65,782,165 6,325,556 9,839,330 9,832,587 88,608,346	$700,051 \\ 51,900 \\ 18,558,693 \\ 4,025,970 \\ 5,572 \\ 52,000 \\ 929,981 \\ 43,071,570 \\ \end{cases}$	6,144,339 23,333,126 110,676,601 69,808,135 6,331,128 9,831,330 10,762,568 131,679,916	1.5 6.3 25.0 17.8 1.7 2.7 2.7 24.0	0.2 5.0 1.2  0.2 11.7	$     \begin{array}{r}       1.7 \\       6.3 \\       30.0 \\       19.0 \\       1.7 \\       2.7 \\       2.9 \\       35.7 \\     \end{array} $	$\begin{array}{c} 2,854,555\\ 10,233,812\\ 35,255,086\\ 40,138,561\\ 893,083\\ 3,042,684\\ 2,302,502\\ 16,737,040 \end{array}$
Total	301,231,406	67,395,737	368,627,143	81.7	18.3	109.0	111,547,323
1932							
Total	310,850,610	78,555,838	389,406,448	79.8	20·2	109.0	83,213,613
1931	•						
Total	329,532,490	69,881,184	399,413,674	82.5	17.5	100.0	91,433,877
1930							
Total	351,848,440	72,978,500	424,826,940	<b>82</b> · 8	17.2	100 · O	83,391,753

Fuel oil of all grades heavier than 42° A.P.I. processed from petroleum. \*Inventory at refineries, warehouses, jobbers' and large consumers' storages. †Data exclude 52,128,000 gallons in 1935; 54,374,000 gallons in 1934; 56,343,000 gallons in 1933; 53,459,000 gallons in 1932; 54,552,000 gallons in 1931; and 59,308,000 gallons in 1930, which were produced and used in Canadian refineries for fuel. ‡Revised.

## TABLE IV

Fuel Oil Deliveries: Specific Uses, by Provinces

(As reported by distributors and importers-Imperial gallons-Calendar years)

	BUILDI	ESTIC and NG heating	INDUSTRIAL (manufac-	TRACTOR fuel oil,	RAILWAYS, principally	BUNKERING, includes	Total deliveries	Per cent of		
Area	domestic heati		domestic cus- Quantity for power		not lubricant	locomotive fuel	distributors' tankers	Imperial gallons	yearly total	
1935										
N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta (and N.W.T.). B.C. (and Yukon)	$3,650 \\ 8,602 \\ 23,440 \\ 1.061$	$\begin{array}{c} 3,589,537\\ 4,366,412\\ 39,900,315\\ 36,495,447\\ 2,348,475\\ 1,195,242\\ 261,696\\ 20,995,654 \end{array}$	3,751,200 6,023,697 30,980,828 28,205,006 1,771,149 5,488,030 1,953,026 41,422,080	46,908 581,216 4,136,613 7,424,516 14,173,130 7,871,013 58,667	$\begin{array}{r} 834,426\\86,021\\1,926,803\\1,038,094\\969,545\\144,445\\7,448,898\\34,453,261\end{array}$	$1, 411, 774 \\18, 002, 266 \\61, 156, 069 \\4, 442, 850 \\28, 188 \\37, 098 \\52, 007, 132 \\$	9,586,937 28,525,304 134,545,231 74,318,010 12,541,873 21,000,847 17,571,731 148,936,794	2.2 6.4 30-1 16.6 2.8 4.7 3.9 33.3		
Total, 1935	45,444	109,152,778	119,595,016	34,292,063	46,901,493	137,085,377	447,026,727	100.0		
Total, 1934	55,290	109,743,672	95 <b>,099,</b> 427	22,395,115	50,737,946	146,994,486	424,880,646	100.0		
Total, 1933	53,221	99,796,758	83, <b>6</b> 57,518	12,670,942	43,489,378	129,012,547	368,627,143			
Total, 1932	, i	77,557,558	82,235,631	12,590,275	56,991,888	160,031,096	389,406,448			
Total, 1931	32,435	73,250,256	108,819,912	3,593,256	57,745,933	156,004,317	399, 413, 674			
Total, 1930		74,375,566	115,323,463	4,306,567	73,728,047	157,093,297	424,826,940	• • •		

Fuel oil includes all oils heavier than 42° A.P.I. processed from petroleum. Amounts recorded respectively for domestic, industrial, and tractor purposes were for actual CONSUMPTION within the areas indicated; those recorded under railways and bunkering were taken from, or accepted at delivery points within these areas, but were consumed by carriers where required.

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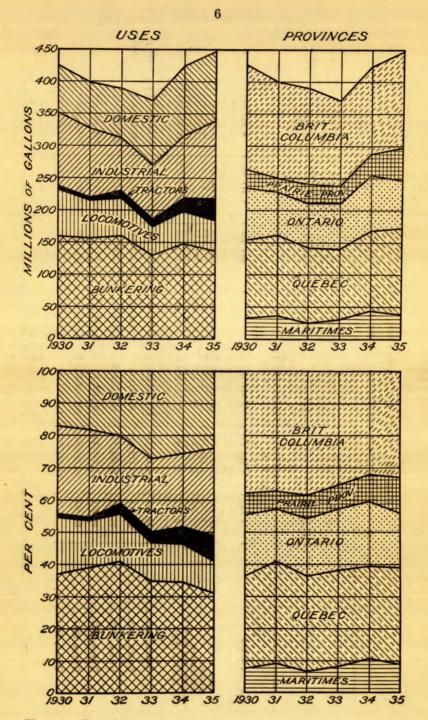


Figure 1. Chart showing actual and relative deliveries of fuel oil for specific uses, and by provinces, calendar years 1930 to 1935.

### DOMESTIC HEATING

The number of Domestic Heating customers in the principal cities of Canada and the gallonages supplied to them exclusively for household uses in ranges and stoves, or for heating their homes, residences, apartments, institutions, offices, or other public buildings are shown in Table V below. Also with the data are the portions reported by: railways, for heating stations, hotels, and cars; several industrial firms, for this class of heating; and distributors, for heating their own buildings. The number of domestic customers reported as 45,444 may be considered as an index of the minimum number of oil furnaces in use for this category of heating which accounted for over 24 per cent of the 1935 aggregate of all fuel oil delivered.

TABLE '	V
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#### **Fuel Oil Delivered for Domestic Heating**

	:	1935			1932	
Area	Number of domestic customers	Quantity	1934	1933		
N.B. and P.E.I. Nova Sectia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta. British Columbia.	$3,650 \\ 8,602 \\ 23,440 \\ 1,061$	$\begin{array}{c} 3,589,537\\ 4,366,412\\ 39,900,315\\ 36,495,447\\ 2,348,475\\ 1,195,242\\ 261,696\\ 20,995,654 \end{array}$	$\begin{array}{c} 2,804,467\\ 3,512,199\\ 44,480,361\\ 39,421,371\\ 2,235,340\\ 471,553\\ 263,114\\ 16,555,267\end{array}$	$1,979,990\\1,809,192\\44,252,995\\31,972,187\\2,101,609\\773,844\\281,511\\16,535,430$	$1,358,518\\1,350,858\\26,534,160\\31,677,078\\2,150,865\\760,516\\171,771\\13,553,792$	
Total, Domestic Heating	45,444	109,152,778	109,743,672	99,796,758	†77 <b>,55</b> 7,558	
Per cent of total Fuel Oil Deliveries		22•4	25.8	87.1	19.9	

†Gallonages used for Domestic Heating by railways, industrial users, and by distributors were not ascertained prior to 1933.

## TABLE V-Con.

## Fuel Oil Delivered for Domestic Heating-Con.

## (a) In Principal Cities

Principal cities	Number domestic cus- tomers* (in- cludes con- tracts)			Per cent of province total for domestic heating		
	1934	1935	1934	1935	1934	1935
Charlottetown and Saint John Halifax	1,431 1,869	1,906 3,650	2,241,406 2,999,541	3,372,036 4,307,954	79.9 85.4	93•9 98•6
Montreal Quebec Shorbrooke Three Rivers	$\substack{\substack{12,662\\1,341\\226\\363}}$	6,696 1,331 175 365	$37, 179, 608 \\ 3, 281, 712 \\ 511, 487 \\ 428, 262$	31,946,596 3,624,938 458,118 410,059	83.6 7.4 1.2 1.0	80 · 1 9 · 1 1 · 1 1 · 0
Hamilton London Ottawa Toronto Windsor district	1,374 1,321 1,975 7,999 173	1,102 1,341 1,995 9,971 158	$3,082,347 \\ 1,969,328 \\ 4,447,614 \\ 17,965,875 \\ 290,220$	2,649,487 2,180,836 4,297,607 16,897,036 372,476	7 · 8 5 · 0 11 · 3 45 · 6 0 · 8	7 • <b>3</b> 6 • 0 11 • 8 46 • 3 1 • 0
Winnipeg †Regina and Saskatoon Vancouver and New Westminster Vietoria	1,102 319 2,857 1,193	1,031 167 5,017 1,092	2,017,355 397,922 11,957,956 1,594,302	1,783,597 781,736 15,168,051 2,138,502	90 · 2 84 · 4 72 · 2 9 · 6	76.0 65.4 72.2 10.2
Total, above cities	36,205	35,997	90,364,935	89,389,029	82.7	81 · 9

\*Largely furnace oil-burners, including oil contracts for domestic heating; oil stoves and ranges omitted. †1934 data include Moose Jaw.

.. .

(b) Additional Gallonage Used for Domestic Heating

	By Railways, for heat- ing hotels, stations, cars		By Industr for domest		By Distributors for heating own buildings		
Area	1934	<b>19</b> 35	1934	1935	1934	1935	
In Maritimes In Quebec In Ontario In Prairies In British Columbia.	928,980	$\begin{array}{r} 23,765\\ 882,477\\ 351,140\\ 180,005\\ 1,550,579\end{array}$	7,280 450,276 225,182 154,851 911,522	31,000 291,646 190,064 194,873 298,533	7,123 471,473 141,751 7,519 119,477	89,232 507,856 228,430 1,350 160,113	
Total	2,902,690	2,987,966	1,749,111	1,006,116	747,343	986,981	

### INDUSTRIAL HEATING

The amounts of fuel oil delivered for industrial and manufacturing consumption for fuel and for the generation of power are shown in Table VI. Important users are the west coast pulp and paper mills; mills and plants for the production and tempering of steels, structural steel forms and steel goods; ore-reduction works, smelters, and refineries for the recovery of base and precious metals; the heavy chemical, sugar-refining, liquordistilling, and canning industries; electric power plants; and in lesser degree to mining companies and factories of all kinds. Deliveries of gasoil for reduction to gas-fuels are also included, as also all fuel oil used by oil companies importing but not refining fuel oil in Canada. The volume of deliveries in each area is determined largely by the number of the specified industries located within that area. The large amount reported for British Columbia is due to the low-cost requirements of this province's large offshore and metallurgical industries.

It may be observed that the amounts of fuel oil consumed during 1935 by important industrial and manufacturing concerns for purposes other than for industrial heating, were reported as follows: for domestic heating 1,006,116; for tractors 144,752; for locomotives 80,407; for bunkering 1,988,462; and for use as raw material 1,326,550 gallons. Oil jobbers likewise reported deliveries during the same year for accounts other than for domestic heating in the following amounts: for tractors 1,165,593; for industrial heating 565,326; and for bunkering 875,097 gallons. Consumption under boilers in Canadian railway shops was slightly in excess of  $4\frac{2}{3}$ million gallons, while distributors used on own accounts over  $2\frac{1}{2}$  million gallons for industrial heating.

Details of deliveries during the past few years for industrial and manufacturers' heating, and for power, are shown in the following table.

#### TABLE VI

### Fuel Oil Delivered for Industrial and Manufacturers' Heating, and for Power Purposes

Area	1935	1934	1933	1932	1931
N.B. and P.E.I Nova Scotia Quebec. Ontario Manitoba Saskatchewan Alberta British Columbia	$\begin{array}{c} 6,023,697\\ 30,980,828\\ 28,205,006\\ 1,771,149\\ 5,488,030\\ 1,953,026\\ 41,422,080\\ \end{array}$	$\begin{array}{r} 4,243,495\\ 4,439,325\\ 14,992,237\\ 35,491,443\\ 2,056,429\\ 2,868,686\\ 584,903\\ 30,422,009 \end{array}$	714,2774,683,57116,045,34828,385,5581,409,0103,504,342580,45927,902,953	$\begin{array}{r} 791,489\\ 4,734,042\\ 26,040,790\\ 25,786,791\\ 1,468,305\\ 4,311,297\\ 515,205\\ 18,587,622 \end{array}$	$\begin{array}{r} 937,890\\7,866,406\\28,426,161\\28,188,990\\1,584,421\\3,970,954\\1,682,473\\36,162,617\end{array}$
Total	119,595,016	95,099,427	83,657,518	82,235,631	108,819,912
Per cent of total Fuel Oil Deliveries	26.7	22.5	22.7	21 • 1	27 • 2

(Imperial gallons-Calendar years)

Data for 1932 and 1931 include amounts for other than industrial heating.

### USE IN TRACTORS

The amount of fuel oil or distillate delivered during 1935 for fuelling tractor-engines was 34,292,000 gallons, an increase of 54 per cent over the previous year's gallonage, as shown in Table VII below. This total includes only petroleum oil heavier than about 42° A.P.I., and excludes: lubricating oils; distillates ranging between 42° and 47° A.P.I., which are classified under Kerosene; and Turner Valley light crude and natural naphtha.

Deliveries in the Prairie Provinces showed another marked increase of over  $10\frac{2}{3}$  million gallons, or 57 per cent, and accounted for 29,468,659 gallons, or 86 per cent of the 1935 total, as compared with 18,768,429 gallons, or 84 per cent in 1934.

Deliveries of tractor fuel ranging between  $42^{\circ}$  approximately and  $47^{\circ}$  A.P.I. are shown, by provinces, in Table XIV, and amounted to 8,177,000 gallons in 1935, as against 8,864,000 gallons in 1934, a decrease of about 8 per cent. These data are summarized in the two following tables.

#### TABLE VII

#### **Deliveries of Fuel Oil for Tractors**

### (Processed oil heavier than 42° A.P.I. only. Imperial gallons—Calendar years)

Area	1935	1934	1933	1932	1931
N.B. and P.E.I. Nova Scotia Quebec. Ontario. Manitoba Saskatchowan Alberta. British Columbia.	Nil 46,908 581,216 4,136,613 7,424,516 14,173,130 7,871,013 58,667	Nil Nil 1,358,438 2,070,223 3,417,396 7,192,323 8,158,710 108,025	$\begin{array}{r} 25,032\\ 228,961\\ 22,242\\ 1,644,991\\ 2,066,888\\ 5,485,569\\ 2,873,784\\ 322,575\end{array}$	$\begin{array}{r} 4,608\\ 14,503\\ 31,504\\ 3,837,542\\ 641,585\\ 4,156,690\\ 3,752,233\\ 151,610\end{array}$	24,833 Nil Nil 276,978 229,282 946,145 2,116,018 Nil
Total	34,292,063	22,305,115	12,670,942	12,590,275	3,593,256
Per cent of total Fuel Oil Deliveries.	7.7	5.2	<b>3</b> •4	3.2	0.9

## TABLE VIII

## Tractor Fuel Delivered in the Prairies

(Processed oil heavier than 47° A.P.I. Imperial gallons-Calendar years)

Oils, heavier than 42° A.P.I. (from Table VII)	Oils, between 42° and 47° A.P.I. (from Table XIV)	Total Oils, heavier than 47° A.P.I.
7,424,516 14,173,130 7,871,013	$\substack{1,382,314\\4,020,214\\2,469,614}$	8,8 <b>06,830</b> 18,193,344 10,340, <b>6</b> 27
34, 292, 063	<b>7,872,142</b> 8,177,026 <i>96 · S</i>	37,340,801 42,469,089 87.9
3,417,396 7,192,323 8,158,710	2, 133, 278 2, 760, 988 3, 233, 926	5,55 <b>9,6</b> 74 9,953,311 11,392,636
<b>18,768,429</b> 22,305,115 84·1	8,128,192 8,864,482 91.7	26,896,621 31,179,597 86.5
5,485,569	1,402,019 6,339,377 6,997,868	3,468, <b>99</b> 7 11,824, <b>946</b> 9,871, <b>65</b> 2
12,670,942	<b>14,739,264</b> 15,578,634 <i>94.6</i>	25,165,505 28,249,576 89-1
	than 42° A. P. I. (from Table VII) 7,424,516 14,173,130 7,871,013 29,468,659 34,292,063 85.9 3,417,396 7,192,323 8,158,710 18,768,429 22,305,115 84.1 2,066,888 5,485,569 2,873,784 10,426,241 12,670,942	$\begin{array}{c ccccc} {\rm than}42^{\circ}{\rm A.P.I.} & 42^{\circ}{\rm and}47^{\circ} \\ {\rm A.P.I.} & {\rm (from} \\ {\rm Table VII)} & {\rm Table XIV} \\ \hline \\ \hline \\ \hline \\ 7,424,516 & 1,382,314 \\ 14,173,130 & 4,020,214 \\ 14,173,130 & 4,020,214 \\ \hline \\ 29,468,659 & 7,872,142 \\ 34,292,063 & 8,177,023 \\ 85\cdot 9 & 96\cdot 5 \\ \hline \\ \hline \\ 3,417,396 & 2,133,278 \\ 7,192,323 & 2,760,988 \\ 8,158,710 & 3,233,926 \\ \hline \\ 18,768,429 & 8,128,192 \\ 22,305,115 & 8,864,482 \\ 84\cdot 1 & 91\cdot 7 \\ \hline \\ 2,066,838 & 1,402,019 \\ 5,485,569 & 6,339,377 \\ 2,873,784 & 6,997,863 \\ \hline \\ 10,426,241 & 14,739,264 \\ 12,670,942 & 14,578,634 \\ \hline \end{array}$

There are no data available which show the amount of gasoline used annually for tractor purposes, though the amounts used for all purposes, other than for motoring, are reported in Table XV.

## RAILWAYS

The net amount of fuel oil delivered by Canadian oil companies to railways operating lines in Canada, for use other than for bunkering, was approximately 47 million gallons. The figures recorded for 1935 and 1934 exclude oil fuel actually consumed by the railways for hotel and station heating, for shops' boilers, and for other special uses such as weed-burning and dredging, which quantities have been assigned to other categories. The data for these years, therefore, represent fuel oil delivered largely for locomotive and rail motor-car account, whilst those shown for the three previous years were not similarly apportioned.

The bulk of railway requirements was obtained from Canadian oil supply depots, less than one and a half million gallons having been moved by the railways directly from United States bases during 1935.

#### TABLE IX

### **Deliveries\* of Fuel Oil to Railways**

#### (Exclude fuel oil supplied to steamships operated by railways.

Area	1935†	1934†	<b>1933†</b> ,	1932	1931
N.B. and P.E.I. Nova Scotia Quebec Ontario. Manitoba. Saskatchewan. Alberta. British Columbia and Yukon	$\begin{array}{r} 86,021 \\ 1,926,803 \\ 1,038,094 \\ 969,545 \\ 144,445 \end{array}$	$1,000,542 \\ 94,573 \\ 1,157,892 \\ 2,009,239 \\ 965,952 \\ 109,977 \\ 7,423,412 \\ 37,310,359$	1,872,14891,808528,0761,536,686663,621127,5757,026,81431,642,560	252, 987 107, 611 3, 823, 062 2, 132, 088 921, 481 119, 403 8, 960, 905 40, 674, 351	$\begin{array}{c} 61,891\\ 3,632,361\\ 1,427,334\\ 1,356,775\\ 1,108,475\\ 81,452\\ 6,805,788\\ 43,211,857\end{array}$
Total	46,901,493	50,737,946	43,489,378	56,991,888	57,745,933
Per cent of total Fuel Oil Deliveries	10.5	11.9	11.8	14.7	14.5

Imperial gallons—Calendar years)

\*Oil delivered for fuelling vessels—ownership of which may he vested, or not, in railways—are recorded in Table XI.

†Data for 1935, 1934, and 1933 are adjusted to exclude gallonage not used for locomotive fuel, such as fuel for hotel heating, shop fuel, etc.; figures for other years were not similarly adjusted.

In the previous table are recorded the amounts of fuel oil accepted by railways from Canadian oil companies at delivery points within each of the provinces. As noted, the figures do not include the amounts of bunker oil delivered directly for the operation of vessels owned by the railways, such amounts being reported separately by the oil companies under the category of bunker oil regardless of the ownership of the vessels. Railways operating in Canada reported a total consumption of 120 million gallons during 1935, and 117 million in 1934, amounts equivalent respectively to 27 per cent and 28 per cent of the total fuel oil marketed by Canadian oil companies during these years. Steam and motor-ships operated by these railways, largely on international and coastal routes, consumed about  $68\frac{1}{2}$  million gallons in 1935, locomotives  $43\frac{1}{2}$ , shops' boilers  $4\frac{2}{3}$ , hotel and station heating about 3, and the remainder for a variety of special uses. Details are summarized below in Table X.

#### TABLE X

#### Fuel Oil Consumption by Canadian Railways (Imperial gallons—Calendar years)

							;
Area	For heat- ing hotels, cars and stations	As fuel, under shops' boilers	·Other miscel- laneous uses	Fuel, for locomo- tives, rail motors and for hostling	For opera- tion of steamships and motor- ships (Bunkering)	Total Fuel Oil	Per cent of total
1935							
Maritimes Quebec Ontario Prairies	23,765 882,477 351,140 180,005	409,255 394,730 257,653	35 2,135 27,422 32,884	26,740 239,551 2,792,080	12, 336, 143 25, 528, 580 678, 994	12,769,198 26,834,662 1,554,760 3,004,969	10.6 22.3 1.3 2.5
British Colum- bia	1,550,579	3,624,012	455,410	40,507,925	29,941,235	76,079,161	63.3
Total	2,987,966	4,685,650	517,886	43,566,296	68,484,952	120,242,750	
Per cent	2.5	3.9	0.4	36·2	57.0		100.0
1934							
Maritimes Quebec Ontario Prairies Britich, Colum	23,835 928,980 359,387 218,400	$356,017 \\ 506,240 \\ 322,411 \\ 18,270$	175 1,260 1,766 Nil	Nil 6,475 230,201 2,719,752	12, 124, 665 18, 501, 525 548, 068 Nil	12,504,692 19,944,480 1,461,833 2,956,422	10 • 7 17 • 1 1 • 3 \$ • 5
British Colum- bia	1,372,088	4,016,977	759,052	38,859,159	34,750,767	79,758,043	68•4
Total	2,902,690	5,201,645	780,523	41,815,587	65,925,025	116,625,470	•••••
Per cent	2.5	4.4	0.7	35 • 9	56·5		100.0
1933							
Maritimes Quebec Ontario Prairies	$\begin{array}{r} 23,100\\ 622,105\\ 116,285\\ 218,365\end{array}$	381,892 819,525 427,923 219,000	171,681 152,545 371,951 296,028	$186, 614 \\ 247, 369 \\ 391, 796 \\ 2, 491, 710$	9,921,978 22,784,125 217,675 Nil	10,685,265 24,625,669 1,525,630 3,225,103	9 · 1 21 · 1 1 · 3 2 · 8
British Colum- bia	1,500,060	3,656,759	877,278	37,759,712	32, 877, 902	76,671,711	65.7
Total	2,479,915	5,505,099	1,869,483	41,077,201	65,801,680	116,733,378	·····
Per cent	2.1	4.7	1.6	35.2	56·4	· · · · · · · · · · · · · · · · · · ·	100.0
Total, 1932.	3,236,038	5,697,377	3,551,612	43,881,872	69,600,211	125,967,110	· · · · · · ·
Per cent	2.6	4.5	<i>2</i> .8	<i>3</i> 4·8	55 · S		100.0

### BUNKERING

During 1935, the amount of fuel oil supplied for Bunkering from Canadian oil-fuelling stations was 137 million gallons, or about 31 per cent of the total Canadian deliveries for all purposes. Although this amount of fuel oil was largely consumed outside of Canadian waters in vessels operating on ocean and international passenger and freight routes, Quebec stations, however, supplied 61, British Columbia 52, and those in Nova Scotia 18 million gallons, these three provinces accounting for over 96 per cent of the aggregate.

The data include the gallonage used in oil distributors' tankers, and amounts definitely reported sold by jobbers for bunkering, as well as those specifically used by industrial consumers as boat fuel. Consumption in steam and motor ships of the Canadian railway systems, amounted to  $68\frac{1}{2}$  million gallons, equivalent to 50 per cent of the bunker total.

The greater portion of the fuel oil delivered by oil companies for bunkering is of a heavy quality, ranging between 11° A.P.I. and 18° A.P.I. or specific gravities of 0.993 and 0.947. Taking 15° A.P.I. (0.966) as an average, the 137 million gallons reported for this use would weigh 661.5thousand short tons, and be the equivalent of almost a million tons of coal.

#### TABLE XI

#### Fuel Oil Delivered and Used for Bunkering Purposes

Area	1935	1934	1933	1932	1931
N.B. and P.E.I Nova Scotia Quebec. Ontario. Manitoba. Saskatchowan. Alta. and N.W.T. British Columbia	61, 156, 069 4, 442, 850 28, 188	2,527,429 24,947,514 61,331,280 6,071,590 1,118 Nil 97,163 52,018,392	1,551,992 16,429,504 49,827,940 6,268,713 Nil Nil Nil 54,934,398	1, 634, 124 15, 427, 378 59, 597, 856 5, 286, 172 ‡Nil Nil Nil Nil 78, 085, 566	5,965,032 14,927,159 67,304,656 8,595,199 Nil Nil Nil 59,211,371
Total	137,085,377	146,994,486	129,012,547	160,031,096	156,004,317
Per cent of total Fuel Oil Deliveries	<del>3</del> 0·7	\$4.6	<b>3</b> 5 · 0	41•1	<b>3</b> 9 · 1

### (Imperial gallons—Calendar years)

Delivered for consumption in Ontario.

## RAIL AND WATER TRANSPORTATIONS

Fuel oil for the above transportation needs amounted to 184 million gallons in 1935, or 41 per cent of the total deliveries for all purposes. This was a decrease of 14 million, or about 7 per cent of the 1934 gallonage. Of the total, British Columbia contributed 47 per cent, Quebec about 34 per cent, and Nova Scotia about 10 per cent. Details are shown in the following table.

## TABLE XII

## Fuel Oil Delivered for Rail and Water Transportations

Area	1935	1934	1933	1932	1931
N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan Alberta and N.W.T. British Columbia and Yukon <b>Total</b> (1)	$18,088,287\\03,082,872\\5,480,944\\997,733\\144,445\\7,485,996$	4,133,971 25,042,087 02,489,172 8,140,829 967,070 109,977 7,520,575 80,328,751 197,732,432	3,424,140 16,521,402 50,356,016 7,805,399 663,621 127,575 7,026,814 86,576,958 172,501,925	$1,887,111 \\15,554,989 \\63,420,918 \\7,418,260 \\921,481 \\119,403 \\8,960,905 \\118,759,917 \\217,022,984$	6,027,823 18,559,520 68,731,990 9,951,974 1,108,475 81,452 6,865,788 102,423,228 <b>213,750,259</b>
Total deliveries, all pur- poses (2)	437,026,727	424,880,646	368,627,143	389,406,448	399,413,674
Per cent (1) of (2)	41.2	46•5	4 <b>6</b> · 8	<i>55</i> · 8	<i>5</i> 3 · 6

(Tables IX and XI combined—Imperial gallons—Calendar years)

Data for 1931 and 1932 include amounts for domestic and industrial heating reported by Railways; amounts for these categories are excluded from the 1933, 1934, and 1935 figures.

#### KEROSENE

The refined fractions of petroleum having specific gravities between 0.816 and 0.793, or between their 42° and 47° Baumé A.P.I. equivalents, are grouped under kerosene. Included with the figures are all amounts of distillate oil within these limits, as determined from replies received.

Deliveries during 1935 and previous years are shown in Table XIII, and in amount, were less than one-fourteenth of the volume of fuel oil, or but one thirty-third of the aggregate of all petroleum fuels. In other words, of every 100 gallons of fuel oil, kerosene, and gasoline delivered during 1935, there were but 3 of kerosene as compared with 42 of fuel oil and 55 of gasoline.

Kerosene is an important and widely used substitute for gas and electricity where these are not available; a common domestic and camp fuel for cooking, heating, and lighting; a signal oil in lighthouses and along steel right-of-ways; a fuel for light water-craft on inland and coastal waters; a material for cleaning large industrial machinery and other objects; a compounding ingredient; while a major field of usage and consumption is as tractor fuel in power-farming.

Yearly returns submitted by individual distributors disclose gradual displacements of distillate and kerosene, observable particularly in Quebec and in the Prairies. The change from kerosene to distillate in the eastern provinces is probably due to the much improved type of small domestic burner, stove, or range now obtaining, the later models being designed for burning the cheaper oil distillate as against refined kerosene, the common fuel of the older models.

In the Prairies, on the other hand, owing to consumer's choice between kerosene and distillate for tractor fuel, and his purchasing power, the volume of refined kerosene delivered is being generally maintained, although amounts of the lighter distillates of similar gravity have been decreasing during the past few years. During 1935, oils of the kerosene range, delivered for tractors, were reported as 8,177,026, a decrease of about 700 thousand gallons from 1934, while oils of the fuel oil range delivered for tractors increased about 12 million gallons.

The distillate marketed in eastern Canada is rarely lighter than 0.8180 or  $42^{\circ}$  Baumé A.P.I., whether used for heating or in tractors. The blended distillate used commonly in the west in tractors has, however, a gravity corresponding to that of gasoline, though some of the lighter kerosenes are also suitably used. In the Prairies, the demand for oil fuels for heating is negligible, in marked contrast to the requirements for this purpose prevailing in the east. In the matter of oil fuels for tractors, the positions are reversed.

The combined deliveries of kerosene and gasoline in the Prairies amounted to 132 million gallons in 1935, 126 in 1934, 118 in 1933, 126 in 1932, and 151 in 1931. Of these, kerosene contributed respectively 16, 16, 21, 26, and 28 million gallons.

Deliveries of kerosene in 1935 for all uses in Canada were  $35 \cdot 3$  million gallons, a drop of about one million from 1934. Some twenty-three million, or 65 per cent, was estimated as used for domestic heating, cooking, and

lighting,  $8\frac{1}{5}$  million gallons, or 23 per cent, for tractor fuel, and the remaining  $4\frac{2}{5}$  million, or 12 per cent, for other general uses. Details by provinces and by uses are shown in the two tables following.

## TABLE XIII

## **Comparative Summary of Kerosene Deliveries, by Provinces**

(Prepared from distributors' and importers' reports-Imperial gallons-Calendar years)

Area	Product of Canadian refineries	Product of foreign refinerics (importa- tions)	foreign <b>Total</b> Respective refinerics <b>kerosene</b> percentages (importa- <b>delivered</b> of total		percentages		Inventory December 31
1935				%	%	%	
N.B. and P.E.I Nova Scotia Quebec Ontario Manitoba. Saskatchewan. Alberta British Columbia	$\begin{array}{c} 1,922,067\\ 2,506,958\\ 4,773,712\\ 7,615,103\\ 3,137,841\\ 7,713,401\\ 4,958,547\\ 1,189,093 \end{array}$	$19,085\\183\\49,384\\632,827\\12,532\\32,255\\119,136\\635,502$	$1,941,152 \\ 2,507,141 \\ 4,823,096 \\ 8,247,930 \\ 3,150,373 \\ 7,745,656 \\ 5,077,683 \\ 1,824,595 \\ \end{array}$	$5 \cdot 4 \\ 7 \cdot 1 \\ 13 \cdot 6 \\ 21 \cdot 6 \\ 8 \cdot 9 \\ 21 \cdot 8 \\ 14 \cdot 0 \\ 3 \cdot 4$	0.1 0.1 1.7 0.1 0.4 1.8	5.57.113.723.3 $8.921.914.45.2$	$753,813 \\ 1,867,216 \\ 2,881,971 \\ 8,280,995 \\ 1,098,326 \\ 2,309,066 \\ 2,699,855 \\ 503,606 \\ \hline \end{tabular}$
Total, 1935	33,816,722	1,500,904	35,317,626	95.8	4.2	100.0	20,394,848
1934 N.B. and P.E.I	2,241,234	93,751	2,334,985	6.2	0.3	6.5	† 896,994
Nova Scotia Quebec. Ontario Manitoba Saskatchewan Alberta British Columbia	$\begin{array}{c} 2,170,990\\ 4,851,223\\ 7,724,829\\ 4,302,126\\ 5,622,625\\ 5,645,919\\ 1,153,254\end{array}$	$\begin{array}{r} 30,149\\ 188,148\\ 1,118,944\\ 157,563\\ 60,063\\ 396,148\\ 419,417\end{array}$	2,201,139 5,039,371 8,843,773 4,459,689 5,682,688 6,042,067 1,572,671	6.0 13.4 21.4 11.9 15.5 15.6 3.2	$\begin{array}{c} 0 \cdot 1 \\ 0 \cdot 5 \\ 3 \cdot 1 \\ 0 \cdot 4 \\ 0 \cdot 2 \\ 1 \cdot 1 \\ 1 \cdot 1 \end{array}$	$\begin{array}{r} 6 \cdot 1 \\ 13 \cdot 9 \\ 24 \cdot 5 \\ 12 \cdot 3 \\ 15 \cdot 7 \\ 16 \cdot 7 \\ 4 \cdot 3 \end{array}$	$\begin{array}{c} 1,309,201\\ 3,429,201\\ 9,146,492\\ 1,134,873\\ 2,690,995\\ 2,318,331\\ 712,233\\ \end{array}$
Total, 1934	33,712,200	2,464,183	36,176,383	93·2	6.8	100.0	21,638,320
1933							
N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta. British Columbia	$\begin{array}{c} 1,874,658\\ 1,547,780\\ 5,300,011\\ 9,751,373\\ 4,055,699\\ 8,442,633\\ 8,602,477\\ 1,133,924 \end{array}$	46,987 7,440 176,869 486,536 24,866 Nil Nil 298,155	$1,921,645 \\ 1,555,220 \\ 5,476,380 \\ 10,237,909 \\ 4,080,665 \\ 8,442,633 \\ 8,602,477 \\ 1,432,079 \\ 1,432,079$	4.5 3.7 12.7 23.4 9.7 20.2 20.2 20.6 2.7	0.1  1.1 0.1 Nil 0.8	4.6 3.7 13.1 24.5 9.8 20.2 20.6 3.5	$\begin{array}{c} 804,000\\ 1,316,692\\ 4,375,354\\ 8,164,861\\ 1,060,897\\ 2,257,371\\ 842,940\\ 952,108\end{array}$
Total, 1933	40,708,555	1,040,353	41,748,908	97.5	2.5	100.0	19,774,223
Total, 1932	42,801,072	1,807,143	44,608,215	95.9	4.1	100.0	15,785,179
Total, 1931	48,225,962	3,489,415	51,715,377	<b>9</b> 3·3	6.7	100.0	
Total, 1930	40,907,003	4,463,225	45,370,228	<b>90</b> ·2	<b>9</b> ·8	100.0	

†Revised.

## TABLE XIV

## Kerosene Deliveries: Specific Uses, by Provinces

(Data include all oils ranging approximately between 42° and 47° A.P.I. Imperial gallons—Calendar years)

	· · · · · · · · · · · · · · · · · · ·						
Province	For domestic heating, cooking and lighting purposes	For fuel in tractors	For other general usage	Total deliveries	Per cent of total	Used by Railways ††	Inventory December 31
1935							
N.B. and P.E.I Quebec Ontario Manitoba Saskatchewan Alberta B. Columbia.	$\begin{array}{c} 1,933,913\\ 2,504,883\\ 4,581,657\\ 6,707,795\\ 1,151,237\\ 3,441,473\\ 1,402,001\\ 1,241,890 \end{array}$	Nil Nil 304,203 1,382,314 4,020,214 2,469,614 681	$7,239 \\ 2,258 \\ 241,439 \\ 1,235,932 \\ 616,822 \\ 283,969 \\ 1,206,068 \\ 582,024 \\ \end{array}$	$1,941,152 \\ 2,507,141 \\ 4,823,096 \\ 8,247,930 \\ 3,150,373 \\ 7,745,656 \\ 5,077,683 \\ 1,824,595 \\ \end{array}$	5.57.113.723.38.921.914.45.2	<pre>     140, 223     60, 013     101, 546     118, 729     150, 768     113, 872     82, 309     </pre>	$\left\{\begin{array}{c}753,813\\1,867,216\\2,881,971\\8,280,995\\1,098,326\\2,309,066\\2,699,855\\503,606\end{array}\right.$
Total, 1935	22,964,849	8,177,026	4,175,751	35,317,626		767,460	20,394,848
Per cent	65.0	23• <b>2</b>	11.8		100.0	(B·B)	
1934 N.B. and							†
P.E.I Nova Scotia Quebec Ontario Manitoba Saskatchewan Alberta B. Columbia.	$\begin{array}{c} 2,308,492\\ 2,079,615\\ 4,971,967\\ 7,427,445\\ 1,512,594\\ 2,385,868\\ 1,775,980\\ 1,429,522 \end{array}$	Nil Nil 612,516 2,133,278 2,760,988 3,233,926 123,774	26,493 121,524 67,404 803,812 813,817 535,832 1,032,161 19,375	2,334,985 2,201,139 5,039,371 8,843,773 4,459,689 5,682,688 6,942,067 1,572,671	65 6·1 13·9 24·5 12·3 15·7 16·7 4·3	$\left.\begin{array}{c}162,730\\55,173\\117,081\\386,957\\75,015\end{array}\right\}$	$\left\{\begin{array}{c} 896,994\\ 1,309,201\\ 3,429,201\\ 9,146,492\\ \{1,134,873\\ 2,690,995\\ 2,318,331\\ 712,233\end{array}\right.$
Total, 1934	23,891,483	8,864,482	3,420,418	36,176,383		796,956	21,638,320
Per cent	66.0	84.5	9.5		100.0	(2.2)	
Total, 1933	22,632,471	15,578,634	3,537,803	41,748,908		759,680	19,774,223
Per cent	54·2	57.5	8.5		100.0	(1.8)	

## TABLE XV

## Sales of GASOLINE (and Motor Fuel), Canada, by Provinces\*

(Gasoline or other named light-gravity motor fuel-generally of, or from petroleum; the gravity limit in any year, in any province, is 0.8017, or 45° A.P.I.)

	Th	ousands o Cal	of Imperi endar ye	al gallon ars	8—	Percentages of total sales, Canada				
Area	†1935	1934	1933	1932	1931	1935	1934	1933	1932	1931
N.B. and P.E.I Nova Scotia Maritimes	18,017 22,274 40, <i>291</i>	16,280 20,003 <i>36,283</i>	<b>To</b> 15,093 18,635 <i>\$3</i> ,728		19,049 21,190	$\begin{vmatrix} 3 \cdot 1 \\ 3 \cdot 9 \end{vmatrix}$	es 3•0 3•8 6•8	$3 \cdot 1 \\ 3 \cdot 8 \\ 6 \cdot 9$	8.3 3.8 7.1	3.4 3.8 7.2
Quebec Ontario	$102,178 \\ 272,681$	93, 512 252, 976	$87,077 \\ 228,416$	$91,128 \\ 233,945$	97,609 250,416		$17.5 \\ 47.3$	$   \begin{array}{c}     18 \cdot 0 \\     47 \cdot 2   \end{array} $	18∙2 46∙7	$17.5 \\ 45.0$
Manitoba Saskatchewan Alberta Prairies	28,483 39,166 47,443 115,092	27,694 36,785 45,194 109,673		33,636	49,450	6∙8 8∙3	5·2 6·9 8·4 20·5	5•0 6•6 8•3 19•9	5·2 6·7 8·2 20·1	5·4 8·9 7·8 22·1
British Columbia	43,410	42,338	38,689	39,458	45,369	7.6	7.9	8•0	7.9	8.2
Canada	573,652	534,782	484 <b>,96</b> 7	501,638	556,869	100.0	100.0	100.0	100.0	100.0
Po	rtions S	old for N	AOTOR	ING Pu	rposes (	by dif	ference	e)		
N.B. and P.E.I Nova Scotia Maritimes	19,527	19,397	17,970	18,445	18,177	3.4	2•6 3•6 <i>6•2</i>		3·0 3·7 6·7	
Quebec Ontario				84,652 217,593	91,817 226,192				$16.9 \\ 43.4$	16∙5 40∙6
Manitoba Saskatchewan Alberta Prairies	26,531 25,211 30,261 82,003	27,016 32,525	19,241 27,278	21,998 30,220	26,479 24,746	4·4 5·3	4.9 5.0 6.1 16.0	4 ∙0 5 • 6	4.3 4.4 6.0 14.7	4.0 4.8 4.4 13.2

Portions Sold for ALL OTHER Purposes

31.285

29.463

36,052

Б ٩.

87.2

89.6

87.4

6.5

83.2

6

88.0

British Columbia.

33,865

32.529

Canada.... 500,438 479,133 423,849 440,835 463,298

(Amounts upon which Tax or part of the Tax was Refunded)

For tractors, stationary engines for light or power, rail motor cars, air and water-craft, industrial uses, etc.

					,					
N.B. and P.E.I Nova Scotia Maritimes	2,858 2,747 5,605	2,337 606 2,943	1,929 665 2,594	1,240 576 1,816	1,357 3,013 <i>4,370</i>	0.5 0.5 1.0	$0.4 \\ 0.2 \\ 0.6$	0.4 0.1 0.5	0·3 0·1 0·4	0.3 0.5 0.8
Quebec Ontario	7,926 17,049	5,288 13,476	6,566 14,019	6,476 16,352	$5,792 \\ 24,224$	1·4 2·9	$1 \cdot 0 \\ 2 \cdot 5$	$1 \cdot 4 \\ 2 \cdot 9$	$1.3 \\ 3.3$	1∙0 4∙4
Manitoba Saskatchewan Alberta Prairies	1,952 13,955 17,182 <i>35,0</i> 89	1,695 9,769 12,669 24,1 <b>5</b> 5	3,071 12,596 13,046 28,715	4,668 11,638 11,080 27,386	8, 165 22, 971 18, 732 49, 868	$0.4 \\ 2.4 \\ 3.0 \\ 5.8$	$0.3 \\ 1.9 \\ 2.3 \\ 4.5$	$0.6 \\ 2.6 \\ 2.7 \\ 5.9$	0.9 2.3 2.2 5.4	1 • 4 4 • 1 3 • 4 8 • 9
British Columbia	9,545	9,809	9,226	8,173	9,317	1.7	1.8	1.9	1.6	1.7
Canada	73,214	55,649	61,118	60,203	93,571	12.8	10.4	12.6	12.0	15.8

\*These data are quoted from the Dominion Bureau of Statistics' annual reports on *The Highway and the Motor Pehicle in Canada*. The amounts recorded for each province were reported directly by the several provincial Tax departments to the Bureau, and are to be interpreted subject to the provisions effective each year in each province, particularly as to amounts sold, but eubject to retund. For this reason the yearly gallonage under each purpose-use are not comparable, and are more or less estimates. Moreover, they do not include motor fuel evading the Tax levy. *P*rovisional.

### PETROLEUM COKE

This hard, dull residue of petroleum distillation, apart from being an excellent fuel, for which it is considerably used in domestic and industrial heating, is also a valued component of electric batteries, carbon lamps, crucibles, and other articles of manufacture. Coke known to have been used in Canadian plants for this last purpose, and reported as about 31,000 tons in 1935, has been omitted from the tonnages shown in the following table, which records only the amounts sold or used for fuel. In addition, a considerable tonnage is also exported annually for use as a raw material.

The tonnage sold and used in Canada for fuel amounted to about 80,000 short tons during 1935, of which over 63,000 were sold for domestic heating, and about 17,000 for industrial heating largely as fuel in producers' refineries.

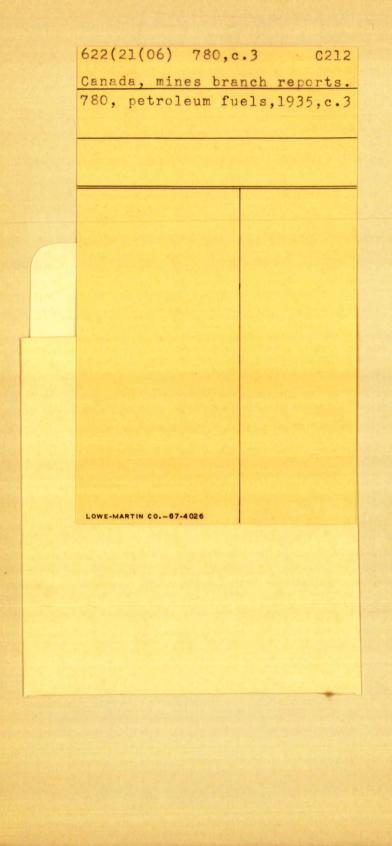
The Ontario total shown under DOMESTIC HEATING includes an important amount of a patent fuel manufactured at Toronto, and marketed as No Ash Blox and No Ash Briquets. These are dry, machine-pressed shapes compounded from crushed petroleum coke screenings (between 90 and 95 per cent), binder, and water, and are usually sold in packages, or by the ton.

Coke reported under INDUSTRIAL HEATING was largely consumed as fuel in refineries.

Fuel for Domestic heating†	Fuel for Industrial heating‡	Total short tons	Inventory Dscember 31†
688 58,937	8 1,719 8,368 6,381	562 2,407 67,305 9,615	Nil 24,087 58,758 2,196
57,649 5,764	16,476 Nil	74,125 5,764	18,751 66,290
63,413	16,476	79,889	85,041
302 711 32,936 5,251	Nil 907 3,295 13,353	302 1,618 36,231 18,604	Nil 13,286 32,512 2,371
$\substack{32,242\\6,958}$	17,555 Nil	49,797 6,958	12,25 <b>7</b> 35,912
39,200	17,555	56,755	*48,169
54,632	27,571	82,203	33,876
57,634	36,189	93,823	42,023
32,439	47,757	80,196	53,160
	Domestic heating† 554 688 58,937 3,234 57,649 5,764 63,413 302 711 32,936 5,251 32,242 6,958 39,200 54,632 57,634	Domestic heating†         Industrial heating‡           554 688 3,234         8 1,719 8,368 3,234           57,049 5,764         16,476 Nil           63,413         16,476           302 711 32,936 5,251         Nil 907 3,295 5,251           32,242         17,555 6,958           39,200         17,555           54,632         27,671           57,634         36,189	Domestic heating†         Industrial heating‡         Short tons           554 688 3,234         8 6,381         562 2,467 5,764           57,049 5,764         16,476         74,125 5,764           53,413         16,476         74,125 5,764           302 711         Nil         342 3,295           302 711         Nil         342 3,535           32,242         17,555         49,797 6,958           39,200         17,555         56,765           54,632         27,571         82,243           57,634         36,189         93,823

## TABLE XVI Sale of Petroleum Coke, Calendar Years, Short Tons (As fuel only, not as material)

†Inventory as reported by coal dealers, distributors, and importers; it also includes stocks at refineries. ‡Industrial tonnage consists mostly of amounts used in refineries as fuel, \*Revised.



OTTAWA J. O. PATENAUDE, I.S.O. PRINTER TO THE KING'S MOST EXCELLENT MAJESTY 1937