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## CANADA

## DEPARTMENT OF TRADE AND COMMERCE

 DOMINION BUREAU OF STATISTICS +++ Census of IndustryMINING. METALLURGICAL \& CHEMICAL STATISTICS


## THE COKE AND GAS INDUSTRY

IN

## CANADA

## 1946



OTTAWA

|  | A66-4-8-48 |
| :--- | :--- |
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## THE COKE AND GAS INDUSTRY, 1946

Production from coke plants and from illumineting and fuel gas plants in Canada during 1946 was valued at $\$ 62,582,475$, a decine of 9.4 per cent from the $\$ 68,483,305$ of the previous year. Output included $3,363,109$ tons of coke valued at $\$ 32,676,130$ at the works, $61,065,424 \mathrm{M}$ cubic feet of gas velued at $\$ 25,931,069$, and by-products valued at $\$ 3,975,276$.

Thirty coke and gas works operated in 1946, including 11 by-product and bee-hive plante, 18 retort cosl and water gas plants, and 1 butane ges plant. Pifteen of these works were located in ontario, 4 in iritish Columbia, 5 in quebec, 2 in Manitoba, 2 in Nova Scotia, 1 in Now Brunswick and in Alberta. In addition to these producers, 1 company in Quebec and 2 in ontario purchased coke-oven gas and distributed it for domestic or comercial use, and data covering their operations heve been included to round out the ingures for the industry.

Output of coke from reas retorts, by-products and bee-hive ovens totelled 3,363, 109 tons in 1946 compared with $3,912,320$ tons in 1945 and $4,017,696$ tons in 1944. By-product and bee-hive ovens produced 3,098,189 tons of coke 1n 1946 and gas retorts made 264,920 tons. In addition, 69,615 tons of petroleum coke were recovered in petroleum refineries and 18,598 tona of pitch coke in coal tar distillation plants.

Data on the distribution of coke (except petroleum and pitch coke) by the producers show that 189,27l tons were sold direct to domestic consumers; $1,324,909$ tons were used in associated works operated by the producing companies; 399,158 tons were used by coke planta as fuel or to make water eas; 677,427 tons were sold direct to consumers for foundry and other uses (other then domestic); 801,337 tons were sold to dealers for resale, and 43,388 tons were sold for export. The total distribution was 3,392,102 tons, including imports by the producers of 40,000 tons. Total stocks of coke in the hands of producers amounted to 363,987 tons at the end of 1946.

Imports into Canada of coke made from coal decreased to 900,833 tons in 1946 from 1,244,398 tons in 1945, and exports increesed to 49,192 tons from 38,665 tons. Imports of petroleum coke during this period increased to 221,678 tons from 192,122 tons and exports (including re-sxports of imported coke) decraased to 14,677 tons from 22,314 tons.
manufactured gas, sold and used, amounted to $61,065,424 \mathrm{~m}$ cubic feot in 1946 , includiag $45,595,212$ M cubic feet from by-product ovens and $15,470,212 \mathrm{ycubic}$ feet from gas plants. Sales of gas by the producors totalled $22,503,927 \mathrm{M}$ cubic foot, of which $12,951,689 \mathrm{Mcub1c}$ foot were rrom by-product ovens and $9,552,238 \mathrm{M}$ cubic feet were from gas works. Most of the remaining gas was used as fuel in the producing plants or in their associated metallurgical worics. These figures do not include $53,365 \mathrm{y}$ cubie foet of (Pintsch) oil gas for lighting railway cars, ll,511,941 if cublc foet of atill gas recovered at petroleum retinerles, nor 1 ron blast furnece gas and producer gas which was recovered and used by the producara but for wich no records are available.

The number of customers served with manurectured illumnating and fuel gas in in 1946 was 548,033 , the length of distributing mains was 2,948 miles, and the average calorific value of the gas sold ranged from 450-570 S.T.T. per cublo foot.

Table 1 - DISTRIBUTION OF COKE AND GAS MANUPACTURING PLANMS, BY PROUINCES, 1946

| Province | $\begin{aligned} & \text { Coke plantg(t) } \\ & \text { By-product and } \\ & \text { beo-hive ovens } \end{aligned}$ | Retort cool gas only | $\begin{aligned} & \text { Gas } \\ & \hline \text { Water gas } \\ & \text { only } \end{aligned}$ | $\begin{aligned} & \text { PI antr } \\ & \text { Retort cool gas } \\ & \text { end wator gas } \end{aligned}$ | Butane gas | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nova Scotia ....... | 1 | 1 | -.. | -.. | $\ldots$ | 2 |
| Nem Brunswick ..... | -•• | 1 | $\ldots$ | -.. | $\cdots$ | 1 |
| Quebec ............ | 1 | 1 | 1 | 1 | 1 | 5 |
| Ontario | 5 | 2 | 5 | 3 | $\ldots$ | 15 |
| Manitoba | 1 | 1 | ... | *** | *.. | 2 |
| Alberta | 1 | ... | -•• | ... | -•• | 1 |
| Britiah Columbia.. | 2 | 1 | -* | 1 | - | 4 |
| caitada ..... | 12 | 7 | $\delta$ | 5 | 1 | 30 |

(*) 9 by-product only; 1 bee-h1ve only, and 1 both by-product and bee-hive.

Table 2-SIZE OF ESTABLISEMSNTS ACCORDING TO QUANIITY OF COAL CEARGED TO OVENS OR RETORTS 1946

| Coal Used | $\begin{aligned} & \text { Number of } \\ & \text { plants ( } \end{aligned}$ | Total coal for gas making |
| :---: | :---: | :---: |
| Less than 5,000 tons .. | 5 | 11,412 |
| 5,001-15,000 | 4 | 48,778 |
| 15,001-100,000 | 4 | 216,990 |
| 100,001-500,000 | 5 | 1,086,227 |
| Over 500,000 | 4 | 3,081,293 |
| TOTAL ( t$)$ | 22 | 4,444,700 |

(*) Does not include 6 plants which distributed water gas only, and 1 plant which distributed butane gas only.

Table 3 - PRINCIPAL STATISTICS OF THB COKB AND GAS INDUSTRY, 1941-1946

(t) The number show for by-product and bee-hive ovens includes 3 companies which did not produce coke or gas but which purchased coke-oven gas from the manufacturers and distributed it to customers. Data for ployees, capital. etc., for these distributing companiss are included in the industry totala but duplication in gas purchases and sales as between producers and distributors has been eliminated.
Note: Profits or losses cannot be calculated from above flgures as data are not avallable for general
expense items, auch as interest, rent, depreciation, taxes, insurance, advertising, etc.
Table 4 - PRINCIPAL STATISTICS, BY FROVINCES, 1945 and 1946

| Province | Number of com= penis8 | Average number of employees | Salar1es and wages | Cost of fuel and electricity at works | cost of materials at works | Gross selling value of products at works |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hore 1945 |  |  | \% | \% | \$ | \$ |
| Nova Scatia and New Brunswick ........ | 3 | 462 | 928,259 | 764,443 | 4,641,513 | 7,895,026 |
| Tuebec | 6 | 689 | 1,502,068 | 2,043,618 | 5,679,227 | 12,839,733 |
| Ontario ........... | 18 | 2,970 | 5,388,380 | 3,059,935 | 25,086,610 | 42,190,328 |
| Manitoba and Alberta | 3 | 200 | 359,926 | 174,649 | 841,923 | 1,771,210 |
| Britiah Columbia... | 4 | 436 | 834,475 | 480,908 | 1,497,209 | 3,787,008 |
| CANALA | 34 | 4.757 | 9,013,108 | 6,523,553 | 37,746,482 | 68,483,305 |

Table 4 - PRINCIPAL STATISTICS, BY PROVINCES, 1945 and 1946 (Concluded)

| Province | Average |  |  | Cost of |  | Gross sell- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of $\mathrm{com}-$ panies | number of employees | Salaries and wages | fuel and electricity at works | Cost of materials at works | ing value of products at works |
|  |  |  | \% | \% | \$ | 6 |
| 1946 |  |  |  |  |  |  |
| Nova Scotia and Now |  |  |  |  |  |  |
| Brinswick . | 3 | 485 | 903,017 | 651,202 | 4,260,127 | 7,287,363 |
| Quebec | 6 | 804 | 1,701,154 | 1,997,956 | 5,364,339 | 12,573,914 |
| Ontario | 18 | 2,964 | 5,386,627 | 3,074,185 | 22,432,773 | 36,661,440 |
| Manitoba and Alberta | 3 | 205 | 375,679 | 181,472 | 881,025 | 1,799,440 |
| British Columbia... | 4 | 503 | 981,736 | 369,355 | 1,770,895 | 4,260,318 |
| CANADA ....... | 34 | 4,961 | 9,348,213 | 6,274,170 | 34,709,159 | 62,582,475 |

Table 5 - RMPLOYEES, SAIARIES AND NAGES, BY PROVINCES, 1945 and 1946

| Proviace | Avarage Number of Employees |  |  |  |  | Salaries | Wages |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | On Salaries |  | On Wages |  | TOTAL |  |  |  |
|  | Male | Female | Male | Female |  |  |  |  |
|  |  |  |  |  |  | \% | $\%$ | \% |
| 1945 |  |  |  |  |  |  |  |  |
| Nova Scotia and New |  |  |  |  |  |  |  |  |
| Brunswick | 38 | 12 | 404 | 8 | 462 | 86,141 | 842,118 | 928,259 |
| Quebec | 214 | 61 | 413 | 1 | 689 | 670,772 | 831,296 | 1,502,068 |
| Ontarlo | 466 | 276 | 2,194 | 34 | 2,970 | 1,398,453 | 3,989,927 | 5,388,380 |
| Manitoba and Alberta | 40 | 22 | 136 | ... | 200 | 102,481 | 257,445 | 359,926 |
| British Columbia | 57 | 13 | 366 | ** | 436 | 154,637 | 679,838 | 834,475 |
| CANADA | 815 | 384 | 3,515 | 43 | 4,757 | 2,412,484 | 6,600,624 | $9.013,108$ |

## 1946



Table 6 -WAGE-FARNERS, BY MONTHS, 1945 and 1946 (Number on pay-roll on the last day of each month)

| Montr | 1945 |  |  | 1946 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | TOTAL | Male | Pomale | TOTAL |
| Jenuary | 3,472 | 66 | 3,538 | 3,769 | 1 | 3,770 |
| February | 3,494 | 69 | 3,563 | 3,783 | 1 | 3,784 |
| March . | 3,469 | 66 | 3,535 | 3,822 | 1 | 3,823 |
| April | 3,438 | 63 | 3,501 | 3,870 | 1 | 3,871 |
| May. | 3,483 | 65 | 3,548 | 3,950 | 1 | 3,951 |
| June | 3,488 | 57 | 3,545 | 3,980 | 1 | 3,981 |
| July | 3,471 | 37 | 3,508 | 3,491 | 1 | 3,492 |
| August | 3,468 | 31 | 3,499 | 3,572 | 1 | 3,573 |
| September | 3,561 | 25 | 3,586 | 3,612 | . . | 3,612 |
| October. | 3,593 | 14 | 3,607 | 3,834 | 1 | 3,835 |
| November | 3,627 | 11 | 3,638 | 3,737 | 1 | 3,738 |
| December | 3,600 | 10 | 3,610 | 3,753 | 1 | 3,754 |
| AVERAGE | 3,515 | 43 | 3,558 | 3,764 | 1 | 3,765 |

Table 9 - TOGI AND ELSCTRICITY USRD, 1945 and 1946
Note: Includes fuel for bollers, benches, retorts, etc., but does not include coal, coke, etc., cherged

| Kind | Unit of measure | 1945 |  | 1946 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | Cost at works | Quantity | Cost at works |
|  |  |  | \$ |  | \$ |
| Anthracite coal. | ton | 8 | 129 | 9 | 144 |
| Bituminous coal - Candien ... | ton | 19,569 | 109,067 | 18,716 | 110,154 |
| Imported | ton | 22,266 | 173,811 | -8,634 | 68,294 |
| Lignite coal - Canadian ..... | ton | , |  | , |  |
| coke ........................... | ton | 281,026 | 1,999,735 | 289,481 | 2,450,199 |
| Cosolino | Imp.eal. | 122,223 | 33,983 | 124,298 | 34,514 |
| Puel 011 | Imp.gal. | 110,527 | 7,263 | 262,330 | 16,544 |
| Cas--Manufactured (all made in users works) .......... | x cu. ft. | 32,116,115 | 3,822,980 | 25,219,595 | 3,216,588 |
| Other iuel ................. | - |  | 30,424 |  | 39,476 |
| Ploctricity purchased ........ | K.W.H. | 66,008,124 | 346,161 | 62,329,218 | 338,257 |
| TOTAL .. | ... | - . | 6,523,553 | ... | 6,274,170 |

Toble B - FONER ERUIPAKNT, 1945 and 1945

| Ordinarily in Use |  | In Reserve or 1010 |  |
| :---: | :---: | :---: | :---: |
| Jumber | Total rat | fumber | Total rete |
| of units | horse power | of units | horse |


| Stean engines and turbines | 184 | 9,852 | 106 | 6,042 |
| :---: | :---: | :---: | :---: | :---: |
| Diesel ongines | 1 | 26 | 1 | 40 |
| Gasoline, gas and oil engines (except Dissel) | 26 | 1,145 | 12 | 405 |
| sodraullo turbines or water wheols ............. | ... | $\cdots$ | 1 | 3 |
| Total Primary | 211 | 11,023 | 120 | 6,490 |
| Rlactric motors run by purchesed power | 1,027 | 19,357 | 164 | 4,257 |
| TOTAL | 1,238 | 30, 380 | 284 | 10,747 |
| Slectric motors run by primary units shown above | 110 | 3, 94.5 |  |  |
| Stationary power botlers ........................ | 75 | 17,093 | 37 | 14,216 |
| Motor-gentrator sots .............................. | 1 | 15 | $\cdots$ | $\cdots$ |
| 1946 |  |  |  |  |
| Stoam ongines and turbines | 184 | 10,328 | 103 | 5,791 |
| Diesel engines | 1 | 26 | 1 | 40 |
| Cesoline, gas and ofl engines (except Diesel)... | 24 | 1,099 | 11 | 380 |
| Hydraulic turbines or water wheels |  |  | 1 | 3 |
| Total Primery | 209 | 11,45\% | 116 | 6,214 |
| Sloctric motors run by purchased power | 1,092 | 19, 362 | 175 | 4,477 |
| TOTAL ...................... | 1,301 | 31,415 | 291 | 10,691 |
| plectric motors run by primary units shown above | 110 | 3,945 | $\ldots$ |  |
| Stationary power boilers .......................... | 75 | 17.093 | 30 | 13,146 |
| Hotor-generator sets ......................... | 1 | 15 |  | .... |

TABIO 9 - MATHRLALS USRD IN COKR AND GAS PLANTS, 1945 and 1946

| Material | Unit of measure | 1945 |  | 1946 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | quantity | Cost at works | Quantity | Cost at works |
|  |  |  | + |  | \$ |
| Bituminous coal carbonized in ovens or retort* - |  |  |  |  |  |
| (a) Canadian | ton | 1,136,436 | 6,509,235 | 1,185,266 | 7,440,795 |
| (b) Imported ..................... | ton | 3,996,049 | 28,248,739 | 3,259,195 | 23,931,424 |
| Bituminous coal for making water gas - |  |  |  |  |  |
| (a) Canadian .................... | ton | ".. | -•• | 417 | 3,761 |
| (b) Imported | ton | 6,764 | 57,532 | 6,702 | 62,641 |
| Coke for gas-making - |  |  |  |  |  |
| (a) Purchased. | tor | 10,759 | 120,273 | 13,618 | 156,635 |
| (b) Compenies' om make | ton | 91,122 | 742,909 | 105,386 | 976,502 |

Table 9 - MATKRIALS USRD IN COKE AND GAS PLANIS, 1945 and 1946 (Concluded)

| Materisl | Unit of measure | 1945 |  | 1946 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | Cost at works | Quantity | Cost at works |
|  |  |  | \$ |  | ¢ |
| 011 used for enriching water gas | Imp.gal. | 10,655,717 | 836,488 | 13,126,351 | 1,062,785 |
| Absorbine and wash oll | Imp.gal. | 275,792 | 36,117 | 245,897 | 29,999 |
| Caustic soda | 1 b . | 1,936,288 | 39,239 | 1,040,063 | 24,064 |
| L1me | ton | 1,849 | 26,087 | 1,304 | 18,378 |
| Water | +.. | ... | 39,967 | ... | 47,017 |
| Iron oxide | ton | 7,357 | 57,441 | 9,385 | 69,899 |
| Sulphuric acid, $66^{\circ} \mathrm{Be}$ | 1 b . | 67,830,415 | 560,007 | 55,052,729 | 455,986 |
| All other materials | ... | ... | 472,388 | ... | 429,273 |
| total cost | . . | . . | 37,746,482 | ... | 34,709,159 |

Table 10 - MATHRIALS USED IN COKE AND GAS PLANTS, BY AREAS, 1946

| Material | Unit of mensure | Eastern Provinces |  | Ontario |  | Western Provinces |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | Cost at works | Quartity | Cost at works | Quantity | Cost at works |
|  |  |  | + |  | \$ |  | $\underline{ }$ |
| Bituminous coal carbonized |  |  |  |  |  |  |  |
| in ovens and retorts - |  |  |  |  |  |  |  |
| (a) Canadian .......... | ton | 743,845 | 4,659,341 | 49,983 | 476,948 | 391,438 | 2,304,506 |
| (b) Imported .......... | ton | 530,906 | 4,168,324 | 2,727,454 | 19,755,700 | 835 | 7,400 |
|  |  |  |  |  |  |  |  |
| water gas - |  |  |  |  |  |  |  |
| (a) Canadian ......... | ton | . |  | 178 | 1,735 | 239 | 2,026 |
| (b) Imported .......... | ton | 239 | 2,509 | 6,463 | 60,132 |  |  |
| Coke for gas-making - |  |  |  |  |  |  |  |
| (a) Purchased ......... | ton | 4,139 | 46,945 | 7,528 | 90,431 | 1,951 | 19,259 |
| (b) Companies ${ }^{\text {a }}$ (nn mate | ton | 15,160 | 152,312 | 73,667 | 712,029 | 16,559 | 112,161 |
| 011 used for enriching |  |  |  |  |  |  |  |
| absorbing and wash ofl .... | Imp.gal. | $1,623,530$ 81,914 | 147,376 11,468 | 124,863 | 15,419 | $2,001,980$ 39,120 | re, |
| Caustic sode | pound | 448,583 | 13,584 | 591,480 | 10,480 |  |  |
| Lime | tor | 1,208 | 17,184 | 95 | 1,187 | 1 | 7 |
| Water ... | ton |  | 8,600 | ... | 13,657 | . | 24,760 |
| Iron oxide | ton | 4,891 | 30,461 | 4,064 | 32,414 | 430 | 7,024 |
| Sulphuric acid, $66^{\circ}$ вé .... | pound | 19,832,875 | 167,253 | 35,219,854 | 288,733 | $\cdots$ | ... |
| All other meterials ..... | ... | ... | 199,109 | ... | 221,266 | . . | 8,898 |
| TOTAL COST ........ | . | - | 9,624,466 | $\cdots$ | 22,432,773 | . | 2,652,920 |

Table 11 - PRODUCTS MADE IN COKK AND GAS PLANTS, 1945 and 1946

| Product | Unit of measure | 1945 |  | 1946 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | Gross selling value at works | Quantity | $\begin{aligned} & \text { Gross soll- } \\ & \text { lig velue } \\ & \text { at works } \end{aligned}$ |
|  |  |  | \% |  | + |
| Gea Made - |  |  |  |  |  |
| Retort coul gas | $\underline{x}$ cu.ft. | 12,661,741 | $\ldots$ | 9,744,357 |  |
| Coke oven gas | M cu.ft. | 49,313,480 | ... | 42,471,460 |  |
| Producer gas | M cu.ft. | 2,031,124 | ... | 1,337,275 |  |
| Water gas | 4 cu.ft. | 5,885,110 | . $\cdot$ | 7,101,932 |  |
| Propare and butane gas | M cu.ft. | 130,394 | $\cdots$ | 118,012 |  |
| TOTAL GAS MADE | Mcu.ft. | 70,021,849 | $\cdots$ | 60,773,036 | $\cdots$ |
| Gas Sold or Used - |  |  |  |  |  |
| Cas sold | Mcu.ft. | 21,551,189 | 19,916,643 | 22,503,927 | 20,916,981 |
| Gas used in own coke or gas plants... | M cu.ft. | 20,999,668 | 2,656,833 | 18,299,361 | 2,302,714 |
| Ges used in associated metallurgical works | M cu.ft. | 24,531,485 | 2,160,752 | 18,257,178 | 1,662,323 |
| Ges otherw1se accounted for but not sold | $\underline{y c u . f t .}$ | 328,489 | 125,693 | 222,902 | 63,358 |
| Lias not accounted for. | ycu.ft. | 2,857,285 | 981,688 | 1,782,056 | 985,693 |
| TOTAL GAS SOLD UR USELD ....... | y cu.ft. | $70,268,116$ | 25,841,609 | 61, 065,424 | 25,931,069 |

Table 11 - PRODUCNS MADS 1 N COKE AND GAS PLANTS, 2945 and 1946 (Concluded)

| Product | Unit of measure | 1945 |  | 1946 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | zuantity | (ross selling value at works | Quantity | Gross selling value At works |
| Coke Made - |  |  | $\checkmark$ |  | $\dagger$ |
| Cake frots by-product or bee-hive ovens | ton | 3,332,578 | 34,210,045 | 2,857,600 | 29,005,738 |
| Coke Irom gas retorts | ton | 271,018 | 2,435,505 | 259,166 | 2,848,316 |
| Coke breeze from by-product ovens | ton | 272,033 | 940,017 | 240,589 | 782,211 |
| Coke breeze from gas retorts | ton | 36,691 | 86.424 | 5,754 | 39,865 |
| TOTAL COKE | ton | 3,912,320 | 37,671,991 | 3,363,109 | 32, 676,130 |


| Tar | Imp.gal. | 37,995,126 | 2,193,711 | 33,043,844 | 1,987,375 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ammonia 11quor | 1b. $\mathrm{NH}_{3}$ | 1,703,170 | 16.457 | 1,559,320 | 17,081 |
| Asmoniur sulphate | pound | $78,573,124$ | 1,140,273 | 60,949,463 | 865,322 |
| Benzol | Imp.gal. | 7,412,377 | 1,009,159 | 5,776,019 | 818,315 |
| Toluol, xylol and naphtkalano | Imp.gal. | $1,675,115$ | 558,279 | 671,922 | 188,086 |
| All othex products | -... | ... | 51,826 | -... | 99,097 |
| GRAND TOMAL | $\cdots$ | $\cdots$ | $68,483,305$ | - . | $62,582,475$ |

Table 12 - PRODUCTS MADF IN COKS AND QAS PLANTS, BY AREAS, 1946

|  |  | Ebstern Provinces |  | Ontario |  | Western Provínces |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Product | Unit of neasure | Quantity | ```Gross sell= ing velue at works``` | Quantity | ```Grosesell. lng value at works``` | Quantity | ```Grose sell- ing value at works``` |
|  |  |  | 6 |  | \% |  | 8 |
| Gas Made - |  |  |  |  |  |  |  |
| Rotort coal gas | M cu.ft. | 5,626,650 |  | 3,877,172 |  | 240,535 |  |
| Coke over gas | 4 cu.ft. | 13,024,094 | . $\cdot$ | 26,045,628 | . . | 3,401,738 |  |
| Producar gas | M cu.ft. | 1,337,275 | $\cdots$ |  |  |  |  |
| Water | M cu.ft. | 676,231 | - 0 | 5,487,522 |  | 938,179 |  |
| Propane gas | $x$ cu.ft. |  | . . | 73,742 |  |  |  |
| Butane gas | M cu.ft. | 44,270 | *. |  | - |  |  |
| TOTAL GAS MADS | 11 cu.ft. | $20,708,520$ |  | 35,484,064 | . | 4,580,452 | ... |
| Cas Sold or Used - |  |  |  |  |  |  |  |
| Ges sold | ucu.ft. | 7,238,696 | 7,638,859 | 11,758,600 | 9,937,726 | 3,506,631 | 3,340,396 |
| Ges used in own plants. | M cu.It. | $5,003,673$ | 688,434 | 12,676,321 | 2,529,255 | 619,367 | 85,125 |
| Ges used in associated metallurgical works.. | M cu.ft. | 8,851,443 | 636,730 | 9,264,299 | $1,018,219$ | 146,436 | 7,374 |
| Ges otherwl se accounted for but not sold.... | M cu.ft. | 162 | 170 | 222,697 | 63,123 | 43 | 65 |
| Gas not accounted for. | M cu.ft. | 497,446 | 195,837 | 984,015 | 599,825 | 300,595 | 190,031 |
| TOLAL GAS SOLD OR USED. | Mcu.ft. | 21,591,420 | $9,160,030$ | 34,905,932 | $13,148,048$ | 4,573,072 | 3,622,991 |

Coke Made

| Coke fram by-product or |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| bee-hive ovens ....... | tor | 826,418 | 8,578,340 | 1,790,335 | 18,324,840 | 240,847 | 2,102,558 |
| Coke from gas retorts.. | ton | 52,015 | 616,659 | 197,920 | 2,135,183 | 9,231 | 96,474 |
| Coke breeze from byproduct ovens ........ | ton | 67,911 | 344,507 | 144,436 | 381,621 | 28,242 | 56,083 |
| Coke breeze from gas retorts | ton | 4,373 | 33,909 | 653 | 1,654 | 728 | 4,302 |
| TOTAL COKB MADS | ton | 950,717 | 9,573,415 | 2,133,344 | 20,843,298 | 279,048 | 2,259,417 |

Other Products -

| Tar | Imp.eal. | 9,905,432 | 538,813 | 20,957,181 | 1,324,309 | 2,181,231 | 124,253 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Other products | ... | - ... | 589,019 | , ... | 1,345,785 |  | 53,097 |
| GRAND TOTAL... | $\cdots$ | ... | ,861,277 | -.. | $36,661,440$ |  | $6,059,758$ |

Table 13 - PRODUCTION OF BEE-HIVE, BY-PRODUCT AND GAS RETORT COKE, 1936-1946 (short tons)

| Year | By-product and bee-h1ve coke |  | Ges retort coke |  | T OTA L |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quentity | Solling value at works | Quent1ty | Selling value at works | 2uantity | Selling value at works |
|  |  | 需 |  | \$ |  | \$ |
| 1936 | 2,147,810 | 14,343,959 | 256,983 | 2,366,049 | 2,404,793 | 16,710,008 |
| 1937 | 2,334,556 | 16,283,370 | 235,829 | 2,182,698 | 2,750,385 | 18,466,068 |
| 1938 | 2,120,588 | 14,599,384 | 231,415 | 2,295,683 | 2,352,003 | 16,895,067 |
| 1939 | 2,147,210 | 14,517,186 | 262,885 | 2,246,331 | 2,410,095 | 16,763,517 |
| 1940 | 2,725,873 | 19,574,651 | 289,521 | 2,363,210 | 3,015,394 | 21,937,861 |
| 1941 | 2,847,624 | 22,484,595 | 298,091 | 2,403,428 | 3,145,715 | 24,888,023 |
| 1942 | 2,966,983 | 25,004,065 | 298,566 | 2,707,608 | 3,265,549 | 27,711,673 |
| 1943 | 3,243,747 | 28,841,420 | 308,026 | 2,498,558 | 3,551,773 | 31,339,978 |
| 1944 | 3,712,404 | 35,270,739 | 305,292 | 2,509,419 | 4,017,696 | 37,780,158 |
| 1945 | 3,604,611 | 35,150,062 | 307,709 | 2,521,929 | 3,912,320 | 37,671,991 |
| 1946 | 3,098,189 | 29,787,949 | 264,920 | 2,888,181 | 3,363,109 | 32,676,130 |

Table 14-PRODUCTION OF BEE-HIVE, BY-PRODUCT AND GAS RLTORT COKE, BY PROVINCES, 1936-1946 (short tona)

| Yeer | Nova Scot18. New Brunswl ck and Quebec |  | Ontario |  | Alberte and British Columbia |  | CANADA |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Sell1ug value at worke | Quantity | Selling value at works | Quantity | $\begin{aligned} & \text { Selling } \\ & \text { value at } \\ & \text { works } \end{aligned}$ | Quantity | Selling value at works |
|  |  | $\%$ |  | 4 |  | - |  | $\underline{ }$ |
| 1936 | 775,275 | 4,655,468 | 1,441,833 | 10,807,611 | 187,690 | 1,246,929 | 2,404,793 | 16,710,008 |
| 1937 | 853,122 | 5,548,042 | 1,504,334 | 11,522,965 | 212,929 | 1,395,061 | 2,570,385 | 18,466,068 |
| 1938 | 754,975 | 5,040,400 | 1,365,571 | 10,339,065 | 231,457 | 1,515,602 | 2,352,003 | 16,895,067 |
| 1939 | 802,072 | 5,583,317 | 1,379,942 | 9,712,164 | 228,081 | 1,468,036 | 2,410,095 | 16,763,517 |
| 1940 | 1,040,999 | 7,582,337 | 1,732,303 | 12,842,138 | 242,092 | 1,413,386 | 3,015,394 | 21,937,861 |
| 1941 | 1,029,028 | 8,038,506 | 1,832,109 | 14,985,196 | 284,578 | 1,864,321 | 3,145,715 | 24,888,023 |
| 1942 | 1,127,797 | 9,258,034 | 1,839,593 | 16,328,365 | 298,159 | 2,125,274 | 3,265,549 | 27,711,673 |
| 1943 | 1,068,679 | $9,038,173$ | 2,176,743 | 20,044, 820 | 304, 351 | 2,256,985 | 3,551,773 | 31,339,978 |
| 1944 | 1,093,939 | 9,961,967 | 2,626,186 | 25,489,173 | 297,571 | 2,329,018 | 4,017,696 | 37,780,158 |
| 1945 | 1,070,377 | 9,928,449 | 2,577,051 | 25,662,496 | 264,892 | 2,082,040 | 3,912,320 | 37,671,991 |
| 1946 | 950,717 | 9,573,415 | 2,133,344 | 20,843,298 | 279,048 | 2,259,417 | 3,363,109 | 32,676,130 |

Table 15 - BEE-KIVE, BY-PRODUCT AND GAS RETORT COKE SOID AND USED BY PRODUCERS DURING 1945 and 1946 and
STOCKS ON HAND AT END OF YEAR
$\frac{\text { Om Make }}{\text { Coke }} \frac{\text { Braeze }}{\text { (Short tons) }} \frac{\text { Purchased }}{\text { Coke Breez }}$

## 1945

Coke actually used by reporting campanies In coke or gas plant (for fuel, water
gas and producer gas) ................
In iran blast furnaces

| 287,379 | 65,458 | 10,442 | 14,248 |
| ---: | ---: | ---: | ---: |
| $1,355,810$ | 116,355 | 169,781 | $\ldots$ |
| 60,275 | $\ldots$ | $\ldots$ |  |

Coke sold -
(a) Direct to consumers:

For other uses . . . . . . . . .

| 137,425 | 32,779 | 1,459 | $\ldots$ |
| ---: | ---: | ---: | ---: |
| 486,918 | 59,638 | 11,731 | 341 |
| $1,089,123$ | 12,185 | 77,293 | $\cdots$ |
| 30,140 | 2,584 | $\ldots$ | $\cdots$ |
| $3,447,070$ | 288,999 | 270,706 | 14,589 |
| 60,080 | 168,642 | 2,706 | 5,382 |

Table 15 - BEK-HIVE, BY-PRODUCT AND CAS RETORT COKE SOLD AND USED BY PRODUCERS DURING 1945 and 1946 and STOCKS ON HAND AT END OF YEAR (Concluded)
$\frac{\text { Own Make }}{\text { Coks Bre日ze }} \quad \frac{\text { Purchased }}{\text { Coke }}$

## 1946

Coke actusily used by reporting compsies =
In coke or gas plant (for fuel, water

In 1 ron blast furnaces .............................................. 123,011
45,696
Ke sold
(a) Direct to consumers:

For donestic use
For other uses
119,474

| 119,474 | 19,455 | 19,425 | 30,917 |
| ---: | ---: | ---: | ---: |
| 421,164 | 73,495 | 63,659 | 817 |
| 793,080 | 8,257 | $\ldots$ | $\ldots$ |
| 38,242 | 3,245 | $\ldots, 901$ |  |
| $2,880,932$ | 211,898 | 171,310 | 53,058 |
| 168,062 | 188,239 | 2,809 | 4,877 |

Stocks of coke on hand at the and of 1946
168,062
NOTE: The above figures on consumption and sales by the producers include 59,000 tons in 1945 and 44,000 tons of imported coke in 1946. Duplication bocause of interplant sales has been eliminatad in each year.

Table 16 - COAL CARBONIZSD, COKB PRODOCED, AND DISTRIBUIION OF COKR BY MANUGACTURERS, 1946

|  | Bee-h1ve and by =product plants | Gas retort plants | Total for coke producing plants |
| :---: | :---: | :---: | :---: |
|  |  | (tons) |  |
| Coal carbionized - |  |  |  |
| Canadien | 1.133,972 | 51,711 | 1,285,683 |
| Imported | 2,924,164 | 341.733 | $3,265,897$ |
| TOTAL | 4,058,136 | 393,444 | 4,451,580 |
| Coke nade - |  |  |  |
| Coke | 2,857,600 | 259,166 | 3,116,766 |
| Breeze | 240,589 | 5,754 | 246,343 |
| TOTAL. | 3,096,189 | 264,920 | 3,363,109 |
| Coke yield | 76.3 | 67.4 | 75.5 |
| Coke used 14 coke or ges planss - |  |  |  |
| Coke | 141,696 | 208,989 | 350,685 |
| Breeze | 43,611 | 4,862 | 48,473 |
| TOTAL | 185,307 | 213,851 | 399,158 |
| Coke used in asaociated norks - |  |  |  |
| Coke | 1,211,484 | 35,029 | 1,246,513 |
| Bresze | 78,391 | 5 | 78,396 |
| TOTAL | 1,289,875 | 35,034 | 1,324,909 |
| Coke sold direct to consumers for domestic use - |  |  |  |
| Coke............................................. | 111,789 | 27,110 | 138,899 |
| Breeze | 47,037 | 3,335 | 50,372 |
| TOTAL | 158,826 | 30,445 | 189,271 |
| Coke sold direct to consumers for other uses - |  |  |  |
| Coke | 602,777 | 338 | 603,115 |
| Brevze .............................................. | 73,598 | 714 | 74,312 |
| TOMAL | 676,375 | 1,052 | 677.427 |
| Coke sold to dealers for ress le - |  |  |  |
| Coke ............. | 781,521 | 11,559 | 793,080 |
| Breeze ............................ | 8,257 | 559 | 8,257 |
| TOTAL | 789,778 | 11,559 | 801,337 |
|  | 43,388 | - | 43,388 |
| TOTAL COLS SOLD AND USRD - Coke ............... | 2,649,267 | 283,025 | 3,132,292 |
|  | 250, 894 | 8,916 | 259,810 |
| TOTAL ............. | 3,100,161 | 291,941 | 3,392,102 |
| Stocks on Decomber 31, 1946 - Coke $\ldots \ldots . \ldots \ldots$ 150,717 20,154 170,871 |  |  |  |
| Breeze .......... | 191.816 | 1,300 | 193,116 |
| TOTAL ............ | 342,533 | 21, 454 | 363,987 |

NORE: The sbove IIgures on consumption and eales include 40,000 tons of imported coke.

Table 17 - FRODUCTION OF BEE-HIVE, BY-PRODUCT AND GAS KETORT COKE, BY MONTHS, $1942-1946$ (In 000 ' 8 of short tons)

| Month | 1942 | 1943 | 1944 | 1945 | 1946 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| January ........................ | 278 | 232 | 345 | 341 | 316 |
| February ..................... | 253 | 250 | 331 | 314 | 299 |
| March ........................ | 287 | 276 | 356 | 342 | 338 |
| April .......................... | 270 | 268 | 338 | 326 | 283 |
| May ........................... | 277 | 278 | 343 | 333 | 275 |
| June ............................ | 270 | 266 | 328 | 324 | 294 |
| July ............................. | 275 | 308 | 322 | 329 | 203 |
| August ......................... | 274 | 314 | 328 | 329 | 199 |
| September . ................... | 269 | 326 | 320 | 318 | 195 |
| October ...................... | 278 | 349 | 331 | 310 | 271 |
| November . | 269 | 339 | 329 | 384 | 320 |
| December ..................... | 265 | 345 | 347 | 362 | 370 |
| TOTAL ........... | 3,265 | 3,551 | 4,018 | 3,912 | 3,363 |
| Monthly Average . . | 272 | 296 | 335 | 326 | 280 |

Table 18 - BITUMINOUS COAL CHARGSD TO COKR OVEIS AND GAS RETORTS, 1937 -1946

(t) Includes 2,392 tons used in making water gas in 1937; 3,650 tons in 1938; 2,882 tons in 1939; 2,699 tons in 1940; 3,522 tons in 1941; 4,030 tons in 1942; 5,104 tons in 1943; 4,756 tons in 1944; 6,764 tons in 1945, and 6,702 tons in 1946.

TQblo 19 - BITUMINOUS COAL CHARGED TO COKE OVRNS AND GAS RETORTS, BY PROVINCES, $1937-1946$

| Year |  | Nova Scotla. New Brunswick and Quebec |  | Ontario |  | Manitaba, Alberts and |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Canadian | Imported | Canadian | Importad (ti) | Caredian | Imparted |  |
|  |  | (Tons) |  |  |  |  |  |  |
| 1937 | -••... | 853,949 | 338,861 | 6,028 | 2,060,077 | 294,838 | 26,197 | 3,579,950 |
| 1938 | ...... | 673,625 | 345,319 | 3,200 | 1,858,798 | 335,270 | 11,802 | 3,228,014 |
| 1939 | . . . . . . | 733,972 | 352,236 | 9,260 | 1,843,570 | 333,746 | 1,424 | 3,274,208 |
| 1940 | ....... | 1,071,156 | 355,024 | ... | 2,344,726 | 347,515 | 2,528 | 4,120,949 |
| 1941 | *-..... | 1,020,956 | 397,814 | - $\cdot$ | 2,489,684 | 413,359 | 131 | 4,321,844 |
| 1942 | . . . . . | 1,051,828 | 502,626 | ** | 2,481,271 | 436,166 | ... | 4,471,891 |
| 1943 | ....... | 798,824 | 702,291 | . . ${ }^{\text {d }}$ | 2,851,297 | 428,191 | . . | 4,780,603 |
| 1944 |  | 826, 305 | 670,997 | - . | 3,389,976 | 394,970 | 34,463 | 5,316,711 |
| 1945 |  | 783,347 | 645,787 |  | 3,340,357 | 353,089 | 16,669 | 5,139,249 |
| 1946 | . . . . | 743,845 | 531,145 | 50,161 | 2,733,917 | 391,677 | 835 | 4,451,580 |

(*) See footnote to Table 18.

Table 20 - PRODUCTION OF PETROLEUM COKE, 1937-1946

| Year | Made for Omm Use |  | Made for Salo |  | TOT A L |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tons | Solling Value at works | Tons | Selling value at works | Toms | Solling value at works |
|  |  | \% |  | \$ |  | \$ |
| 1937 | 2,381 | 8,942 | 59,634 | 371.198 | 62,015 | 380,140 |
| 1938 | 634 | 1,547 | 63,375 | 388,753 | 64,009 | 390,300 |
| 1939 | 4,238 | 18,253 | 62,094 | 370,936 | 66,332 | 389,189 |
| 1940 | 4,876 | 25,328 | 63,458 | 416,262 | 68,334 | 441,590 |
| 1941 | 3,138 | 21,774 | 67,702 | 471,564 | 70,840 | 493,338 |
| 1942 | 8,950 | 63,411 | 64,461 | 464,326 | 73,411 | 527,737 |
| 1943 | 7,141 | 49,310 | 74,634 | 535,853 | 81,775 | 585,163 |
| 1944 | 1,651 | 10,997 | 71,158 | 507,166 | 72,809 | 518,163 |
| 1945 | 7,260 | 36,269 | 59,559 | 472,933 | 66,819 | 509,202 |
| 1946 | 4,172 | 19,345 | 65,443 | 343,761 | 69,615 | 363,106 |

NOTE: Patroleum coke is not included in coke production figures given for the coke and gas industry.

Table 21-TOTAL PRODOCTION OF COKS (Including Petrolaum and Pitch Coke) IN CANADA, 1943-1946

|  |  | Nove Scotia and New Brunswick | Quebec | Ontario | Mant tobs, Se ska to hewan, Alberta and Britigh Columbla | CANADA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1943 |  |  |  |  |  |  |
| Coke and cos industry ..... | Tons | 557,696 | 510,983 | 2,178,743 | 304,351 | 3,551,773 |
|  | \$ | 3,971,707 | 5,066,466 | 20,044,820 | 2,256,985 | 31,339,078 |
| Petroloum refining industry | Tons | 273 | 1,122 | 78,897 | 1,483 | 81,775 |
|  | + | 696 | 8,938 | 567,100 | 8,429 | 585,163 |
| Pitch coke ..... | Tons | 5,054 | 638 | 11,781 | 522 | 17,995 |
|  | 1 | 46,689 | 6,076 | 88,497 | 6,673 | 147,935 |
|  | Tons | 563,023 | 512,743 | 2,269,421 | 306,356 | 3,651,543 |
|  | 8 | 4,019,092 | 5,081,480 | $20,700,417$ | 2,272,087 | 32,073,076 |
| 1944 |  |  |  |  |  |  |
| Coke and gess Industry | Tons | 588,338 | 505,601 | 2,626,186 | 297,571 | 4,017,696 |
|  | * | 4,946,366 | 5,015,601 | 25,489,173 | 2,329,018 | 37,780,158 |
| Petroleum refining industry |  | 300 | 3,337 | 67,364 | 1,808 | 72,809 |
|  | \$ | 841 | 20,021 | 484,756 | 12,545 | 518,163 |
| Pitch coke ..... | Tons | 3,856 | 987 | 8,311 | 635 | 13,789 |
|  | 1 | 31,658 | 9,333 | 60,925 | 6,403 | 108,319 |
|  | Tans | 592,494 | 509,925 | 2,701,861 | 300,014 | 4,104,294 |
|  | 1 | 4,978,865 | 5,044,955 | 26,034,854 | 2,347,966 | 38, 406,640 |
| 1945 |  |  |  |  |  |  |
| Coke and gas industry | Tons | 576,283 | 494,094 | 2,577,051 | 264,892 | 3,912,320 |
|  | \$ | 5,077,112 | 4,851,337 | 25,662,496 | 2,081,046 | 37,671,991 |
| Petroloum reilning industry | Tons | 236 | 1,347 | 62,837 | 2,399 | 66,819 |
|  | * | 784 | 8,351 | 490,049 | 10,018 | 509,202 |
| Pltch coke ..... | Tons | 4,074 | 1,252 | 11,819 | 650 | 17,795 |
|  | \$ | 27,852 | 9, 017 | 85,143 | 6,956 | 128,968 |
|  | Tons | $580,593$ | $496,693$ | $2,651,707$ | $267,941$ | $3,996,934$ |
|  | $1$ | $5,105,748$ | $4,868,705$ | $26,237,688$ | $2,098,020$ | $38,310,161$ |
| 1946 |  |  |  |  |  |  |
| Coke and gas industry ..... | Tons | 498,079 | 452,638 | 2,133,344 | 279,048 | 3,363,109 |
|  | \$ | 5,044,676 | 4,528,739 | 20,843,298 | 2,259,417 | 32,676,130 |
| Petroleum refining industry | Tons | 374 | 2,907 | 63, 754 | 2,580 | 69,615 |
|  | \$ | 1,627 | 12,645 | 335,526 | 13,308 | 363,106 |
| Pitch coks ..... | Tons | 7,947 | 1,184 | 8,780 | 687 | 18,598 |
|  | $t$ | 72, 410 | 8,290 | 63,035 | 7,906 | 151,641 |
|  | ${ }_{4}^{\text {Tons }}$ | $\begin{array}{r} 506,400 \\ 5,118,713 \end{array}$ | $\begin{array}{r} 456,729 \\ 4,549,674 \end{array}$ | $\begin{array}{r} 2,205,878 \\ 21,241,859 \end{array}$ | $\begin{array}{r} 282,315 \\ 2,280,631 \end{array}$ | $\begin{array}{r} 3,451,322 \\ 33,190,877 \end{array}$ |

Mand tobs,

Table 22 - APPARENT CONSUNPTION OF COKE (Including Petroleum and Pitch Coke) IN CANADA, BY FROVINCES, 1940 - 1946

|  | Prince Bdward Island, Nova Scotia and New Brunswick | Quebec | Ontario | Manitoba, Saska tchewan, Alberta and British Columbia | CANADA |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (Tons) |  |  |
| $\begin{aligned} & \text { Apparent consumption - } 1940 \\ & 1941 \\ & 1942 \\ & 1943 \\ & 1944\end{aligned}$ | 584,966 | 608,280 | 2,455,112 | 236,186 | 3,884,544 |
|  | 597,817 | 612,146 | 2,609,137 | 272,927 | 4,092,027 |
|  | 641,878 | 699,083 | 2,734,286 | 292,551 | 4,367,808 |
|  | 559,018 | 821,422 | 3,096,692 | 297,555 | 4,774,68? |
|  | 573,496 | 724,087 | 3,419,438 | 270,904 | 4,987,925 |
| 1945 |  |  |  |  |  |
| Production | 580,593 | 496,693 | 2,651,707 | 267,941 | 3,996,934 |
| Add decline or deduct increase in |  |  |  |  |  |
|  | 601,190 | 512,277 | 2,676,460 | 270,751 | 4,060,678 |
| Add - Imports entered for consumption | 195 | 320, 397 | 1,085,342 | 30,838 | 1,436,772 |
|  | 501,385 | 832,674 | 3,761,802 | 301,589 | 5,497,450 |
| Deduct - Exports and re-exports ..... APPARENT CONSTIPTION ........ | 4,252 | 2,488 | 20,872 | 33,373 | 60,985 |
|  | 597,133 | 830, 186 | 3,740,930 | 268,216 | 5,436,465 |
| 1946 |  |  |  |  |  |
| Production | 505,400 | 456,729 | 2,205,878 | 282,315 | 3,451,322 |
|  |  |  |  |  |  |
| producers' atocks ......................... | 489,662 | 449,925 | 2,095,229 | 284,855 | 3,319, 671 |
| Add - Imports entered for consumption | 206 | 186,990 | 915,455 | 20,205 | 1,122,856 |
|  | 489,868 | 636,915 | 3,010,684 | 305,060 | 4,442,527 |
| Deduct - Exports and re-exports | 4, 839 | 2,713 | 14,533 | 42,173 | 64,258 |
|  | 485,029 | 634,202 | 2,996,151 | 262,887 | 4,378,269 |

NOIE: The imports "Entered for consumption" represent tonnages cleared from customs" ports. The tonnages under this heading differ slightiy from actual imports.
Table 23 - QUANTITY OF COKS IN THE HANDS OF THE PRODUCERS AT THE KND OF 1945 and 1946

| Province | 1945 |  |  | 1946 |  |  | $\begin{gathered} \text { Difference } \\ 1946 \text { from } \\ 1945 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Petroleum refineries | coke and gas plants | TOTAL | Petroleum refinerles | $\begin{aligned} & \text { Coke and } \\ & \text { gas plants } \end{aligned}$ | TOTAL |  |
|  | (Tons) |  |  |  |  |  |  |
| Nova Scotia | ... | 3,083 | 3,083 | ... | 19,821 | 19,821 | +16,738 |
| New Brunawick | ... | 4 | 4 | ... | 4 | 4 | - ... |
| Quebec ............. | 95 | 16,640 | 16,735 | 512 | 23,027 | 23,539 | +6,804 |
| Ontar10........... | 1,768 | 189,231 | 190,999 | 4,503 | 297,145 | 301,648 | +110,649 |
| Manitobe | ... | 1,744 | 1,744 | $\cdots$ | 2,558 | 2,558 | +814 |
| Saska tchowan | 2,456 | . . . | 2,456 | 3,687 | ... | 3,687 | $+1,231$ |
| Alberta ............ | ... | . | … | - | $\cdots$ |  |  |
| British Columbia ... | 70 | 26,108 | 25,178 | 161 | 21,432 | 21,593 | -4,585 |
| TOTAL .......... | 4,389 | 236,810 | 241,199 | 8,863 | 363,987 | 372,850 | $+131,651$ |

NOTE: No data for producers stocks of pltch coke.
Table 24 - ANALYSIS OF COKE CONSURPTION IN CANADA, BY PRINCIPAL AREAS, 1942-1946

|  | Prince Edwart Island, Nova Scotia and Now Brunswick | Quebec | Ontario | Mant toba, Sasketchewan, Alberta and British Columbia | CANADA |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1942 (Tons) |  |  |  |  |  |
|  |  |  |  |  |  |
| Furnace charges ............ | 510,725 | 49,312 | 1,763,242 | 93,722 | 2,417.011 |
| Manufacturing material ..... |  | 298,191 | 273,354 | 62,695 | 634,240 |
| Industrial fuel ............ | 36,441 | 53,980 | 285,675 | 21,736 | 397,832 |
| Available for other uses (mostly domestic) | 94,712 | 297,600 | 412,015 | 114,408 | 918,735 |
| APPARANT CONSTIPTION ... | 641,878 | 699,083 | 2,734,286 | 292,561 | 4,367,808 |

Table 24 - ANALYSIS OF CORT CONSUMPTION IN CANADA, BY PRINCIPAI AREAS, $1942-1946$ (Conc luded)

|  | Prince Edward Island, Nove Scotis and Now Brunswick | Quebec | Onterio | Manitoba, Saska tchewsan, Alberta and British Columbia | CANADA |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1943 |  |  | (Tons) |  |  |
| Furzace charges ............. | 395,883 | 47,895 | 1,710,724 | 90,560 | 2,245,062 |
| Manutacturing materisi ...... | -•• | 423, 107 | 328,123 | 70,404 | 821,639 |
| Industrial Suel | 35,878 | 60,443 | 284,987 | 21,974 | 403,282 |
| Atrailable for other uses (mostly domestic) ......... | 126,225 | 286,984 | 705, 147 | 114,528 | $1,232,854$ |
| APPARENT CONSTMPTION ..... | 557,986 | 818,429 | 3,028,986 | 297,466 | 4,702,837 |
| 1944 |  |  |  |  |  |
| Turvace charges ............. | 407,131 | 49,737 | 1,721,222 | 73,357 | 2,251,447 |
| Manufacturing material...... |  | 311,837 | 318,885 | 40,872 | 671,594 |
| Industrial fuel ............. | 35,645 | 119,079 | 533,542 | 114,913 | 803,179 |
| Aveileble for other uses |  |  |  |  |  |
| (mostly domestic) ......... | 130,720 | 243,434 | 845,789 | 41,762 | 1,261,705 |
| APPARENT CONSURPTION | 573,496 | 724,087 | 3,419,438 | 270,904 | 4,987,925 |
| 1945 |  |  |  |  |  |
| Turnace charges ............ | 399,902 | 57,346 | 1,660,489 | 67,435 | 2,185,172 |
| Manufacturing materiel ...... |  | 248,836 | 393,397 | 50,425 | 692,658 |
| Industriel fuel ............. | 37,187 | 127,127 | 526,765 | 110,627 | 801,706 |
| Ayeilable for other uses |  |  |  |  |  |
| (mostly domestic) ......... | 160,044 | 396,877 | 1,160,279 | 39,729 | $1,756,929$ |
| APPARENT CONSTIPTION .... | 597,133 | 830,186 | $3,740,930$ | 268,216 | $5,436,465$ |
| 1946 |  |  |  |  |  |
| Furnece charges | 340,476 | 53,328 | 1,306,918 | 72,695 | 1,773,417 |
| Manufacturing material ...... | 1,481 | 176,138 | 278,143 | 20,812 | 476,574 |
| Industrial fuel ...... | 23,058 | 116,119 | 429,801 | 114,450 | 683,428 |
| Arailable for other uses |  |  |  |  |  |
| (mostly domestic) ......... | 120,014 | 288,617 | 981,289 | 54,930 | $1,444,850$ |
| APPARENT CONSUAPTION .-... | 485,029 | 634,202 | $2,996,151$ | 262,887 | 4,378,269 |

NOTES: 1. Figures showing the tonnages of coke available for domestic or other uses are obtalned by difference and include the coke used for purposes other than apecified in these tables.
2. No sllowance hes been made for changes during the year in stocks of cake held by dealers or users.
3. No allowance has been made for interprovincial shipments of coke.

TAb 1025 - SALES (2) OF PETROLEUM COKE IN CANADA FOR FUEL PURPOSES, 1940-1946
Fuel for domestic
Areas and industrial
anear
heating (b)

| 1940 | . .................... | 44,392 | 183,579 |
| :---: | :---: | :---: | :---: |
| 1941 | ....... | 39, 150 | 3,985 |
| 1942 | . ......... | 29,480 | 1,986 |
| 1943 | . . . . . . . . . | 18,868 | 6,466 |
| 1944 | ........*..... | 25,616 | 6,580 |
| 1945 | . . . . . | 59,855 | 21,202 |
| 1946 | Maritimes ......................... | 374 | . . |
|  | Quobec | 122,616 | 71,609 |
|  | Ontario | 141,018 | 44,221 |
|  | Western provinces | 2,616 | 696 |
|  | Canadian. | 105,907 | 35,995 |
|  | Imported ........ | 160,717 | 80,531 |
|  | TOTAL FOK 2946 | 266,624 | 116,526 |

[^0]Table 26 - PRODOCTION AND SALPS OF MANUFACTURKD GAS BY THE COKX AND GAS INDUSTRY, 1936-1946

| Year |  | From By-product and Gas Plants |  |  | Production of still <br> gas irom petrolum refineries |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Production <br> (直) | Seles |  |  |
|  |  |  | Quantity | Income from salog |  |
|  |  | N cu.it. | M cu.ft. | \% | Meu.ft. |
| 1936 | -"•••••••** | 44,345,358 | 15,321,832 | $15,163,664$ | 6,083,549 |
| 1937 | ............... | 46,009,633 | 15,289,839 | 14,732,531 | 6,199,110 |
| 1938 | -............. | 42,932,721 | 15,198,068 | 15,001,142 | 6,486,618 |
| 1939 | ............... | 41,632,773 | 14,936,902 | 14,562,246 | 7,802,666 |
| 1940 | . ............. | 55,112,521 | 15,392,723 | 14,803,049 | 8,706,834 |
| 1941 | - | $57,728,803$ | 16,931,434 | $15,888,723$ | 9,971,268 |
| 1942 | ................ | 68,839,292 | 18,913,230 | 17,316,135 | $7,643,715$ |
| 1943 | - . . • | 74,731,346 | 20,403,544 | 18,609,364 | 10,086,340 |
| 1944 |  | 82,357,655 | 21,101,351 | 19,392,362 | 10,601,455 |
| 1945 | . . .............. | 70,021,849 | 21,551,189 | 19,916,643 | 10,614,582 |
| 1946 |  | 60,773,036 | 22,503,92? | 20,916,981 | 11,511,941 |

(t) Does not include blast furnace gas and producer gas which are recovered and used by the producers but for which no recorde are avallable.

Table 27 - SALES OF MANUFACIURED AND NATURAL GAS IN CANADA, 1945 and 1946 (As reported by Distributors)

|  | 1945 |  |  | 1946 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of customer: | $\begin{gathered} \text { Quentity } \\ \text { sold } \end{gathered}$ | Revenue from sales | Number of customers | Quantity | $\begin{gathered} \text { Revenue from } \\ \text { gales } \\ \hline \end{gathered}$ |
|  |  | M cu.ft. | \$ |  | M cu.ft. | $\dagger$ |
| Nanufactured Gae - |  |  |  |  |  |  |
| Domest1c ........ | 493,307 | 12,720,922 | 13,928,374 | 507,717 | 12,365,931 | 13,997,670 |
| House heating .. | 6.217 | 1,679,796 | 914,981 | 6,404 | 1,746,316 | 958,361 |
| Industrial..... | 3,356 | 5,109,828 | 2,996,984 | 3,619 | 4,622,445 | 2,582,478 |
| Commercial | 29,619 | 3,893, 648 | 3,429,237 | 30,160 | 3,741,153 | 3,362,839 |
| Macellaneous | 114 | 48, 423 | 49,040 | 133 | 16,319 | 88,224 |
| TOTAL | 532,613 | $23,452,817$ | 21,318,616 | 548,033 | $22,492,164$ | 20,989,572 |



NOTE: The sales figures for manufactured gas as recorded in this table differ slightly from those given in Table 26 because they represent sales by distributing companies to consumers. Some petroleum refinery gas was treated and distributed by the natural gas companies.

Table 28 - PRODUCTION OF CRUDE COAL TAR, BY FROVINCES, 1944-1946
Province 119444945
(Imperial gallons)

| Nove Scotia and New Brunswick | 7,977,607 | 7,892,890 | 6,437,817 |
| :---: | :---: | :---: | :---: |
| Quebec | 3,648,345 | 3,498,476 | $3,467,615$ |
| Ontario | 24,760,068 | 24,530,863 | 20,957,181 |
| Manitoba | 497,186 | 479,013 | 473,564 |
| British Columbia | 1,024,729 | 1,593,884 | 1,707,667 |
| CANADA .... | 37,907,935 | 37,995,126 | $33,043,844$ |

Tabla 29 - PRODJCTION, IMPORTS AND EXPORTS OF ANOONIUM SUPPHATE, 1936-1946

| Year | Production (t) |  | Imports |  | Exports |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tons | \$ | Tons | \% | Tons | 1 |
| 1936 | 98,483 | 1,883,088 | 5,729 | 148,956 | 83,835 | 1,802,818 |
| 1937 | 87,621 | 1,782,364 | 3,230 | 82,440 | 56,485 | 1,212,258 |
| 1938 | 119,520 | 2,590,994 | 5,911 | 156,540 | 77,191 | 1,697,204 |
| 1939 | 129,865 | 3,107,97? | 3,217 | 94,854 | 109,260 | 2,508,364 |
| 1940 | 115,679 | 3,217,268 | 355 | 13,506 | 72,485 | 2,172,049 |
| 1941 | 98,662 | 3,156,880 | 57 | 4,951 | 59,480 | 2,147,613 |
| 1942 | 116,796 | 3,776,372 | 5,044 | 185,608 | 79,236 | 2,908,266 |
| 1943 | 196,404 | 6,176,623 | 39 | 2,653 | 141,080 | 4,794,695 |
| 1944 | 209,578 | 6,387,397 | 105 | 13,117 | 167,497 | 5,505,115 |
| 1945 | 221,499 | 7,255,308 | 104 | 12,576 | 181,189 | 6,179,877 |
| 1946 | 197,823 | 5,856,906 | 64 | 6,016 | 155,447 | 5,218,549 |

(重) Includes output of syntbetic amonium sulphate in the Fertilizer Industry.

## DIRECTORY OF FIRMS IN THE COKE AND GAS INDUSTRY, 1946

Names of Firms and Location of Plants
Coke and gas making equipment, including reserve equipment (Rated annual capacity in tons of coal carbonized or in cubic feet of gas produced given in brackets)

## 1. COKE PLANTS

By-product Ovens
Dominion Steel and Coal Corp. Ltd., Sydney, N.S. In Use - 180 Koppera horizontal ovens ( 813,000 tons)

Montreal Coke \& Manfacturing CO. . (Quebec Hydro-Electric Commission) (b) 435 St. Patrick St., Ville La Solle, Quebec

Algom Steel Corporation Ltd. (Great Northern Gas Co. Ltd.) (b) Sault Ste. Marie, Ontario Hamilton By-product Coke ovens, Ltd. (United Gas \& Fuel Co. Lte.f(b) Hanilton, Ontario

Ontario Coke Orens Division, Hemilton By-Product Coke Orens, Ltd., Hamilton, Ontario

In Use - 59 Koppars Becker type horizontal ovens (560,275 tons); 4 Koppers Kerpely Ring type producers ( $12,702,000 \mathrm{M}$ cu.ft.)
In Reserve or Idle - 5 Water Gas sets ( $8,000,000 \mathrm{M}$ cu.ft.)
In Use - 103 Wilputte ovens ( 660,000 tons) and 141 Koppers ovens (1,121,500 tons)
In Use - 25 Semet-Solvay ovens (175,000 tons), and 35
Wilputte ovens (240,000 tons); 1 Carbureted Water Gas Set ( $1,095,000$ u cu.ft.) ; 2 Propane Vaporizera ( $600,000 \mathrm{Mcu} \mathrm{cft}$ )
In Uso - 54 Curran-Knowles Sole Flue Type (328,500 tons)
In Reserve or Idle - 4 Calusha Cleveland Ohio Producers ( 6,307 w cu.ft.)
In Use $=3$ Curran-Knowles ovens (12,775 tons)
In Use -80 Wilputte ovens ( 641,232 tons)
In Use - 17 Koppers Becker type horizontal ovens $(84,500$ tons)
In Reserve or Idle - 1 western Cas mater gas set (1,460,000 M cu.ft.)
In Use - 45 intermittent Chamer ovens (131,604 tons);
3 internal end 3 external mechanical producers for chamber oven plants; 40 continuous vertical retorts (766,500 $\mathbf{4}$ cu.ft.) ; 2 weter gas generators ( $1,095,000$ w cu.ft.) $1 \mathrm{C} . \mathrm{W}$. Gas generator (365,000 w cu.ft.)

NOTE: Names of gas distributing canpanios in brackets.
(a) Indicates carbureted water ens was distributod.
(b) Indicates coke oven gas was distributed for domestic and commercial use.

## 1. COKE PLANTS (Concluded)

## Beahive ovens

International Coal \& Coke Co. Ltd., Coleman, Alta.

Crow's Nest Pass Coal Co. Ltd., Mchel, B.C.

In Use -77 beohive ovens ( 81,070 tons) In Reserve or Idie - 2 ? beohlve ovens ( 28,430 toms)

In Use - 230 beehive ovens (128,000 tons); 20 byproduct ovens ( 80,000 tons)
In Reserve or Idie - 608 beehive ovens (340,000 tons)

## 2. ILLUMINATING AND GUSL GAS PLANTS

## Retort Coal Ges and Cerbureted Water Gas

Nova Scotia Light \& Power Compeny Limited (b) Halifex, N.S.

New Brunswick Power Compeny (b)
Saint John, N.B.

Shawinigan Chemicala Ltd., Shawinigan Falls, quobec

City of Sherbrooke Gas and Electricity Dept. (a) Sherbrooke, Quebec

Quebec Power Company (Gas Division) (b) Quebec, Quebec

Board of Light \& Heat Comission (b) Guelph, Ontario

Brockville Public Utilities Commssion (a) Brockville, Ontario

Consumere Gas Company of Toronto (a)(b) 19 Toronto St., Toronto, Onterio

Belleville Public Utilities Commission (b) Belleville, Ont.

Ontario Shore Gas Co. Ltd. (a), Oshawa, Ontario

Peterborough Utilities Cormission (a) Peterborough, Ontario

In Use - 16 Glover-ifest continuous vertical retorts (18,000 tons)

In Use - 12 Russell horizontal retorts (3,786 toms) In Reserve or Idle $=6$ Russell horizontal retorts (1.550 tons)

11 chemical type coking stokers of own design(330,000 tons)

In Use - I Westarin Gas water gas set (146,000 M cu.ft.)

In Use - 12 Woodall-Duckham vertical continuous retorts (25,300 tons); 1 U.Y.I. (1,000 M cu.ft.)
In Reserve or Ide - 1 Western Gas water eas set (1,250 M cu.It.);1 U.Y.I. water gas sot (1,000 M cu.It.)

In Use - 8 Glover-West vertical continuous retorts (12,000 tons); 1 Shell Lowe carbureted water ges get (350 M cu.ft.)
In Reserve or Idle - 2 Glover-West vertical ovens ( 3,000 tons); 1 Shell Lowe carbureted water ges set.

In Use -2 Water Gas sats ( $500,000 \mathrm{M} \mathrm{cu.ft)}$.

In Use -104 Glover-West vertical retorts (190,000 tons)
220 Drakes Ltd. horizontal retorts (112,420 tons:; B
Lowe Principel water gas sets.
In Use - 4 Glover-Hest continuous vertical retorts (5,475 tons)

In Use - 1 water gas set
In Reserve or Idio - 1 water gas set.
In Use - 1 Merrifield Pearson water gas set $190,000 \mathrm{M}$ cu.ef.)
$\frac{\text { In Reserve or Idle }}{(70,000 \mathrm{Mcu.It.})}-1$ Merrifield Pearson water gas set

Directory of Pims in the Coke and Gas Industry, 1946 (Concluded)

Coke and ges making equipment, including reserve equipment (Rated annual capacity in tons of coal carbonized or in cubic feet of ges produced given in brackets)

## 2. ILLUNINATING AND FUEL GAS PLANTS (Concluded)

Retort Coal Gas and Carburoted Water Ges (Concluded)

Public Utilities Comission (a), Kingston, Ontario

Public Utilities Commission (a)(b)
Kitchaner, Ontario

Ottawa Light, Heat \& Power Co. Ltd. (a)
56 Sparks St., Ottawa, Ontario

Public Utility Comission (b), Stretford, Ontario

Victoria Gas Company, Ltd. (a) (b), Victoria, B.C.

Corporation City of Nelson (b), Nelson, B.C.

```
In Use - 1 Merrifield-Westcott water gas set(300,000 M
cu.rt.)
In Reserve or Idle - 1 Merrifield-Westcott water gas
get (150,000 M cu.rt.)
In Use - 3 horizontal retorts (3,900 tons); 1 water
gas sot (219,000 M cu.ft.)
In Reserve or Idle - 2 horlzontal retorts (2,600 tons);
l water gas set (219,000 M cu.ft.)
In Use - 1 carbureted blue gas set (547,500 M cu.ft.);
In Reserve or Idle - 1 carbureted blue gas set (547,000
Mcu.ft.)
In Use - 12 horizontal retorts (5,000 tons)
In Reserve or Idle - 6 horizontal retorts (2,500 tons)
In Use - 16 Qlover-West vertisal retorts (16,352 tons);
I llumphrey & Glasgow water set (500 M cu.ft.);
1 water eas set (500 M cu.ft.)
In Use - 8 horizontal retorts (1,500 tons)
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## Propane Gas

```
City Gas and Electric Corporetion, Ltd., Three Rivers, Quebec
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(a) Indicates thet carbureted water gas wes distributed.
(b) Indicates that retort coal gas was distributed to customers.


[^0]:    (a) As reported by coal dealers, distributors and importers.
    (b) Consisting mostly of amounts used as fuel by refineries.

