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DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS

THE COKE & GAS INDUSTRY
IN
CANADA
1934



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DOMINION BUREAU OF STATISTICS
MINING, METALLURGICAL AND CHEMICAL BRANCH
OTTAWA - CANADA

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MANUFACTURES OF THE NON-METALLIC MINERALS

THE COKE AND GAS INDUSTRY IN CANADA, 1934

The value of products made in coke and gas plants in Canada during 1934 totalled \$38,272,020. This value was 28 per cent higher than the 1933 total of \$29,936,975 which in turn was slightly higher than the output of \$29,812,650 in 1932. Capital employed in the industry in 1934 was \$99,297,395, the average number of workers was 4,278, payments in salaries and wages amounted to \$5,648,969 and the cost of materials for use in manufacturing was \$15,237,031.

Records for 1934 show that 41 coke and gas plants were operated including 8 by-product plants, 2 bee-hive plants, 23 retort or carburetted water gas plants and 8 plants for making pintsch oil gas for lighting railway cars. Twenty-one of these works were located in Ontario, 6 in British Columbia, 4 in Quebec, 3 in Manitoba, 2 in each of Nova Scotia, New Brunswick and Alberta, and 1 in Saskatchewan. In addition to these manufacturers three gas distributing companies have been included in this industry; 1 of these concerns operated in Quebec and 2 in Ontario. These companies purchase coke-oven gas from the manufacturers and distribute it for domestic and commercial use and data covering their operations have been included in order to round out the figures for the industry. In all other cases the manufacturers distribute the gas which they produce.

Output of gas-house, by-product and beehive coke in Canada during 1934 totalled 2,243,420 tons as compared with 1,772,164 tons in the next preceding year and 1,637,701 tons in 1932. By-product coke plants along with the two beehive oven plants produced 1,948,294 tons and only 295,126 tons were obtained from the city gas plants. In addition 61,760 tons of petroleum coke were recovered as a by-product in petroleum refining; this production has not been included in the coke figures given for the coke and gas industry.

Production of artificial gas amounted to 40,125,201 M cubic feet of which 31,755,936 M cubic feet was from by-product coke ovens and 8,369,265 M cubic feet from other plants. Sales of gas by the producers totalled 15,409,927 M cubic feet valued at \$15,766,750 of which 7,890,488 M cubic feet valued at \$7,622,449 was from by-product plants and 7,519,439 M cubic feet at \$8,144,301 from gas works. Most of the remaining gas was used as a fuel in the producing plants or their associated metallurgical works. In addition to the above, 3,768,886 M cubic feet of still gas was produced as a by-product from petroleum refineries, practically all of which was used for fuel purposes in the refineries. The total output of natural gas was reported at 21,948,855 M cubic feet.

Imports of gas-house and by-product coke rose to 930,221 tons in 1934 from 644,075 tons in 1933 while exports during the same period fell off to 1,137 tons from 5,199 tons. Gas entering Canada by pipe line advanced to 107,171 M cubic feet as against 100,854 M cubic feet in the previous year.

The number of customers served by the producers of illuminating and fuel gas in 1934 was 514,907, the number of active meters was 511,360 and the length of distributing mains was 3,821 lineal miles or 6,296 miles in terms of 3 inch mains. The calorific value of the gas sold ranged from 450 to 550 B.T.U. per cubic foot.

Table 1 - DISTRIBUTION OF COKE AND GAS PLANTS BY PROVINCES, 1934.

Provinces	COKE PLANTS		G A S P L A N T S		TOTAL
	By-product coke ovens	Bee-hive ovens	Retort coal		
			gas and water gas	Pintsch oil gas	
Nova Scotia	1	...	1	...	2
New Brunswick ....	...	...	1	1	2
Quebec	1	...	2	1	4
Ontario	3	...	16	2	21
Manitoba	1	...	1	1	3
Saskatchewan .....	...	...	...	1	1
Alberta .....	...	1	...	1	2
British Columbia .	2	1	2	1	6
CANADA	8	2	23	8	41

Table 2 - SIZE OF ESTABLISHMENTS ACCORDING TO QUANTITY OF GAS PRODUCED, 1934.

M cu.ft.	Number of plants (x)	Total Production M cu.ft.
Under 10,000	4	25,448
10,000 - 50,000	7	225,344
50,000 - 100,000	3	189,122
100,000 - 175,000	5	713,342
175,000 - 300,000	1	295,582
300,000 - 610,000	3	1,181,745
610,000 - 1,000,000	1	646,269
1,000,000 - 4,000,000	1	1,170,552
Over 4,000,000	6	35,629,054
TOTAL	31	40,076,458

(x) Excluding beehive ovens and pintsch gas plants.

Table 3 - PRINCIPAL STATISTICS OF THE COKE AND GAS INDUSTRY, 1930 - 1934.

Years	No. of plants employed	Capital	Average number of em- ployees	Salaries and wages	Cost of materials at works	Selling value of products at works	Value added by manu- facturing
		\$		\$	\$	\$	\$
COKE -							
1930	8	42,243,472	1,238	2,085,420	13,263,874	22,205,806	8,941,932
1931	8	44,637,462	1,218	1,841,453	10,159,741	17,057,595	6,897,854
1932	9	41,702,610	1,032	1,472,950	8,626,737	15,287,576	6,660,839
1933	10	51,562,853	1,316	1,738,250	9,581,030	17,937,418	8,406,388
1934	13	56,282,977	2,083	2,772,265	13,094,258	26,547,174	13,453,116
GAS -							
1930	33	47,743,763	2,732	3,779,382	3,818,490	14,387,053	10,568,563
1931	33	51,235,396	2,788	3,775,310	3,734,320	14,191,865	10,457,545
1932	33	51,831,885	2,607	3,424,796	3,614,961	14,525,074	10,910,113
1933	32	42,662,623	2,210	2,868,058	3,148,045	11,949,557	8,801,512
1934	31	43,014,418	2,195	2,876,704	3,337,779	11,724,846	8,387,067

Table 3 - PRINCIPAL STATISTICS OF THE COKE AND GAS INDUSTRY, 1930 - 1934 (concluded)

Years	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$
TOTAL COKE AND GAS -							
1930	41	89,987,235	3,970	5,864,802	17,082,364	36,592,859	19,510,495
1931	41	95,872,858	4,006	5,616,763	13,894,061	31,249,460	17,355,399
1932	42	93,534,495	3,639	4,897,746	12,241,698	29,812,650	17,570,952
1933	42	94,225,476	3,526	4,606,308	12,729,075	29,936,975	17,207,900
1934 -							
Nova Scotia and							
New Brunswick	4	9,294,237	300	318,555	1,286,132	2,388,440	1,102,308
Quebec	5	13,142,716	847	1,265,168	3,057,490	9,733,107	6,675,617
Ontario	23	55,882,364	2,604	3,435,062	9,484,340	22,422,751	12,938,411
Manitoba, Saskat- chewan and							
Alberta	6	6,184,908	196	247,548	749,570	1,499,336	749,766
British Colum- bia							
	6	14,793,170	331	582,636	656,499	2,228,386	1,568,867
TOTAL	44	99,297,395	4,278	5,648,969	15,237,031	38,272,020	23,034,989

Table 4 - SIZE OF ESTABLISHMENTS, ACCORDING TO PRODUCTION, EMPLOYEES AND CAPITAL EMPLOYED, 1934.

	No. of plants	Capital Employed	Average number of employees	Selling value of products at works
		\$	No.	\$
(a) PRODUCTION				
Under \$10,000	3	54,172	12	21,029
10,000 - 25,000	6	246,417	29	105,927
25,001 - 100,000	10	2,889,859	162	661,611
100,001 - 250,000	10	9,824,099	444	2,006,393
250,001 - 1,000,000	7	18,155,202	624	3,589,949
Over 1,000,000	8	68,127,646	3,007	31,885,616
TOTAL	44	99,297,395	4,278	38,272,020
(b) EMPLOYEES (Number)				
1 - 10	10	360,589	49	226,842
11 - 20	10	4,701,039	147	940,683
21 - 50	8	3,998,912	243	1,144,856
51 - 100	4	6,364,670	257	1,212,611
Over 100	12	83,872,185	3,582	34,747,028
TOTAL	44	99,297,395	4,278	38,272,020
(c) CAPITAL EMPLOYED				
Under \$100,000	12	499,650	73	385,530
100,000 - 500,000	9	2,588,335	186	784,010
500,001 - 1,000,000	7	4,438,771	215	1,067,089
1,000,001 - 2,000,000	3	4,896,113	276	1,136,523
2,000,001 - 5,000,000	6	21,930,524	773	10,581,817
Over \$5,000,000	7	64,944,002	2,755	24,317,051
TOTAL	44	99,297,395	4,278	38,272,020

Table 5 - CAPITAL EMPLOYED, BY CLASSES AND BY PROVINCES, 1933 and 1934.

Provinces	Present value	Inventory	Inventory	Operating	TOTAL
	of land, build- ings, fixtures and machinery	value of materials on hand and stocks in process	value of finished products on hand	capital (cash, bills and accounts re- ceivable, pre- paid expenses, etc.	
	\$	\$	\$	\$	\$
<u>1933</u>					
Nova Scotia and New Brunswick ...	6,493,574	1,281,563	214,000	1,024,909	9,014,046
Quebec	10,665,833	1,504,085	435,000	711,229	13,116,207
Ontario	42,126,181	2,650,410	374,089	6,323,403	51,474,083
Manitoba, Saskat- chewan and Alberta	5,973,385	23,821	30,187	164,636	6,182,029
British Columbia ..	13,799,533	392,705	7,429	229,444	14,429,111
CANADA	79,058,566	5,652,584	1,060,705	8,453,621	94,225,476
<u>1934</u>					
Nova Scotia and New Brunswick ...	6,571,051	1,257,640	230,000	1,235,546	9,294,237
Quebec	10,15,941	1,475,062	715,713	800,000	13,14,716
Ontario	45,874,212	3,167,336	697,466	6,143,350	55,882,364
Manitoba, Saskat- chewan and Alberta	5,983,854	19,358	19,469	162,227	6,184,908
British Columbia ..	14,536,745	9,588	246,837	...	14,793,170
CANADA	83,117,803	5,928,984	1,909,485	8,341,123	99,297,395

Table 6 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1933 and 1934.

Provinces	Number of Employees				TOTAL	Salaries	Wages	TOTAL SALARIES AND WAGES
	On salaries		On wages					
	Male	Female	Male	Female				
					\$	\$	\$	
<u>1933</u>								
Nova Scotia and New Brunswick ...	39	10	192	...	241	60,468	195,636	256,104
Quebec	84	10	261	...	355	186,634	318,752	505,386
Ontario	440	180	1,719	4	2,343	984,102	2,144,324	3,128,426
Manitoba, Saskat- chewan and Alberta	36	24	126	...	186	76,890	175,214	252,104
British Columbia ..	71	12	318	...	401	129,829	334,459	464,288
CANADA	670	236	2,616	4	3,526	1,437,923	3,168,385	4,606,308
<u>1934</u>								
Nova Scotia and New Brunswick	40	11	249	...	300	63,976	254,579	318,555
Quebec	301	84	462	...	847	701,643	563,525	1,265,168
Ontario	491	213	1,898	2	2,604	1,104,062	2,331,000	3,435,062
Manitoba, Saskat- chewan and Alberta	38	24	134	...	196	79,800	167,748	247,548
British Columbia ..	62	6	263	...	331	107,255	275,381	382,636
CANADA	932	338	3,006	2	4,278	2,056,756	3,592,233	5,648,969

Table 7 - WAGE-EARNERS, BY MONTHS, 1933 and 1934. (On 15th of each month or nearest representative date)

Months	1933			1934		
	Male	Female	TOTAL	Male	Female	TOTAL
January	2,539	3	2,542	2,964	2	2,966
February	2,506	3	2,509	2,971	2	2,973
March	2,507	3	2,510	3,014	2	3,016
April	2,541	3	2,544	2,944	2	2,946
May	2,600	3	2,603	3,029	2	3,031
June	2,563	3	2,566	3,093	2	3,095
July	2,611	4	2,615	3,044	2	3,046
August	2,713	3	2,716	3,069	2	3,071
September	2,680	3	2,683	3,028	2	3,030
October	2,687	3	2,690	3,030	2	3,032
November	2,732	3	2,735	2,989	2	2,991
December	2,725	3	2,728	2,910	1	2,911
AVERAGE	2,616	4	2,620	3,006	2	3,008

Table 8 - FUEL AND ELECTRICITY USED, 1933 and 1934.

Note:- Includes fuel for boilers, benches, retorts, etc., but does not include coal, coke, etc., charged to ovens or retorts.

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Coal, bituminous - Canadian ...	short ton	6,930	29,076	10,675	36,719
Coal, bituminous - Imported ..	short ton	18,709	101,156	23,990	134,639
Coal, anthracite	short ton	1,514	5,096	1,371	6,850
Coal, lignite - Canadian	short ton	804	2,239	544	1,578
Coke (all made in users' works)	short ton	108,881	535,112	96,375	483,588
Fuel oil	Imp. gal.	5,164	534	13,417	1,103
Gas (all made in users' works)	M cu.ft.	7,175,766	1,672,985	14,178,985	1,837,259
Gasoline	Imp. gal.	6,217	988	10,061	1,653
Other fuel	xxx	...	18,400	...	20,997
Electricity purchased	K.W.H.	23,046,000	241,004	38,540,307	358,663
TOTAL	xxx	...	2,606,590	...	2,783,049

Table 9 - POWER EQUIPMENT, 1933 and 1934.

	1933		1934	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and turbines	210	7,061	244	7,039
Diesel engines	1	7	...	...
Gasoline, gas and oil engines	3	79	5	194
Hydraulic turbines or water wheels ...	...	...	1	3
Total Primary	214	7,147	250	7,236
Electric motors run by purchased power	847	21,144	1,074	24,709
TOTAL	1,061	28,291	1,324	31,945
Electric motors run by primary units shown above	109	2,172	109	2,182
Total Electric Motors	956	23,316	1,183	26,891
Boilers	239	23,415	127	26,600

Table 10 - MATERIALS USED IN COKE AND GAS PLANTS, 1933 and 1934.

Materials	Unit of measure	1933		1934	
		Quantity	Cost at works \$	Quantity	Cost at works \$
Bituminous coal:-					
(a) Canadian	short ton	604,017	2,491,991	844,303	3,459,633
(b) Foreign	short ton	1,861,944	8,405,030	2,271,801	10,270,998
Coke for gas-making:-					
(a) Purchased	short ton	4,614	43,343	4,457	42,596
(b) Companies' own make	short ton	108,654	732,662	77,255	530,351
Oil used for enriching					
water gas	Imp. gal.	9,558,945	610,147	6,140,084	355,953
Oil used for making					
oil gas	Imp. gal.	756,410	56,546	866,905	68,424
Absorbing and wash oil	Imp. gal.	261,583	33,796	182,417	25,080
Calcium carbide	lb.	28,000	1,236	...	...
Caustic soda	lb.	384,452	12,643	678,006	19,515
Lime	tons	1,374	8,784	1,911	11,686
Water	xx	...	15,672	...	33,484
Oxide or purifying					
materials	tons	2,734	29,076	3,757	47,010
Sulphuric acid, 66° Be.	lb.	28,905,528	187,420	33,907,546	238,148
All other materials ...	xx	...	100,729	...	134,153
TOTAL COST		xxx	12,729,075	...	15,237,031

Table 11 - MATERIALS USED IN COKE AND GAS PLANTS, BY AREAS, 1934.

Materials	Unit of measure	EASTERN PROVINCES		ONTARIO		WESTERN PROVINCES	
		Quantity	Cost at works \$	Quantity	Cost at works \$	Quantity	Cost at works \$
Bituminous coal:-							
(a) Canadian ..	short ton	556,628	2,130,710	700	4,700	286,975	1,324,223
(b) Foreign ...	short ton	359,210	1,709,075	1,911,920	8,554,810	671	7,113
Coke for gas making:-							
(a) Purchased .	short ton	684	7,182	3,773	35,414	...	...
(b) Companies' own make .	short ton	37,158	251,348	36,712	245,212	3,385	33,791
Oil used for enriching							
water gas	Imp. gal.	201,151	17,130	5,927,568	338,083	11,365	740
Oil used for making							
oil gas	Imp. gal.	264,480	19,548	263,372	22,305	339,053	26,571
Absorbing and							
wash oil	Imp. gal.	45,404	5,091	137,013	19,989	...	...
Caustic soda	lb.	166,921	2,889	511,085	16,626	...	...
Lime	ton	1,175	5,002	706	6,402	30	282
Water	xxx	...	25,066	...	3,590	...	4,828
Oxide or purifying							
materials	ton	309	6,511	3,357	38,067	91	2,432
Sulphuric acid,							
66° Be	lb.	8,726,586	51,407	25,180,960	186,741	...	...
All other materials							
ials	xxx	...	112,663	...	12,401	...	9,089
TOTAL		xxx	4,343,622	...	9,484,340	...	1,409,069

Table 12 - PRODUCTS MADE IN COKE AND GAS PLANTS, 1933 and 1934.

Products	Unit of measure	1933		1934	
		Quantity	Selling value at works \$	Quantity	Selling value at works \$
GAS -					
Retort coal gas	M cu.ft.	5,152,081	...	5,907,842	...
Coke oven gas	M cu.ft.	20,054,910	...	26,974,981	...
Straight water gas	M cu.ft.	35,931	...	3	...
Carburetted water gas	M cu.ft.	3,763,814	...	2,415,277	...
Mixed coal and water gas .	M cu.ft.	73,446	...	...	...
Water gas for heating and dilution only	M cu.ft.	not reported	...	4,778,355	...
Pintsch oil gas	M cu.ft.	44,136	...	48,743	...
Acetylene gas	M cu.ft.	977	...	...	...
Total Gas Made	M cu.ft.	29,125,295	...	40,125,201	...
Gas sold.....	M cu.ft.	15,893,248	11,839,345	15,409,927	15,766,750
Gas used in own plants ...	M cu.ft.	7,166,473	1,668,524	13,636,957	1,753,926
Gas used in associated metallurgical works	M cu.ft.	6,314,165	908,697	8,542,290	1,163,000
Gas otherwise accounted for, but not sold	M cu.ft.	133,329	46,619	836,962	294,718
Gas not accounted for ...	M cu.ft.	844,069	881,654	970,684	876,824
COKE -					
Coke from by-product or bee-hive ovens	short ton	1,403,749	9,572,108	1,828,403	13,131,153
Coke from gas retorts	short ton	243,904	2,474,958	274,253	2,304,093
Coke breeze from by-product ovens	short ton	95,699	275,492	119,891	350,777
Coke breeze from gas retorts	short ton	27,812	143,637	20,873	75,734
Total Coke	short ton	1,772,164	12,466,195	2,243,420	15,861,757
OTHER PRODUCTS -					
Tar	Imp. gal.	21,292,622	1,172,797	25,840,781	1,397,413
Ammonia liquor	Lb.N.H. ₃	1,607,326	18,729	1,981,728	23,371
Ammonia sulphate	Lb.	33,446,959	313,973	41,024,184	413,729
Benzol	Imp. gal.	2,645,649	552,595	3,412,864	621,799
Light oils.....	Imp. gal.	57,925	61,250	473,412	51,347
All other products	xxx	...	1,597	...	47,386
GRAND TOTAL	xxx	...	29,936,975	...	38,272,020

Table 13 - PRODUCTS MADE IN COKE AND GAS PLANTS, BY AREAS, 1934.

Products	Unit of measure	EASTERN PROVINCES		ONTARIO		WESTERN PROVINCES	
		Selling value of products		Selling value of products		Selling value of products	
		Quantity	at works	Quantity	at works	Quantity	at works
		\$	\$	\$	\$	\$	\$
GAS -							
Retort coal gas	M cu.ft.	483,593	...	5,267,740	...	156,509	...
Coke oven gas	M cu.ft.	9,764,629	...	15,051,798	...	2,158,554	...
Straight water gas	M cu.ft.	...	...	3	...	...	...
Carburetted water gas	M cu.ft.	96,134	...	2,313,889	...	5,254	...
Mixed coal and water gas	M cu.ft.	...	...	...	...	...	...
Water gas for heating and dilution only	M cu.ft.	4,778,355	...	...	...	...	...
Pintsch oil gas	M cu.ft.	19,570	...	12,378	...	16,795	...
Total Gas Made	M cu.ft.	15,142,281	...	22,645,808	...	2,337,112	...
Gas sold	M cu.ft.	5,362,424	6,150,909	8,473,473	7,612,871	1,574,030	2,002,970
Gas used in own plants	M cu.ft.	6,809,732	664,296	6,425,562	1,015,095	401,663	74,535
Gas used in associated metallurgical works	M cu.ft.	2,247,814	204,551	6,170,354	943,186	124,122	15,263
Gas other wise accounted for, but not sold	M cu.ft.	403	316	680,887	138,354	155,672	156,048
Gas not accounted for	M cu.ft.	75,954	83,801	807,762	682,333	86,968	110,690
COKE -							
Coke from by-product or bee-hive ovens	short ton	582,530	4,103,427	1,061,997	7,821,586	183,876	1,206,140
Coke from gas retorts	short ton	17,568	133,849	249,993	2,116,090	6,692	54,154
Coke breeze from by-product ovens	short ton	50,980	122,512	59,664	196,946	9,247	31,319
Coke breeze from gas retorts	short ton	3,227	9,362	17,055	65,741	591	631
Total Coke	short ton	654,305	4,369,150	1,388,709	10,200,363	200,406	1,292,244
OTHER PRODUCTS -							
Tar	Imp.gal.	7,663,887	389,582	17,020,066	937,842	1,156,828	69,989
Other products	xxx	...	258,942	...	892,707	...	5,993
GRAND TOTAL	xxx	...	12,121,547	...	22,422,751	...	3,727,722

Table 14 - PRODUCTION OF BEE-HIVE, BY-PRODUCT AND GAS RETORT COKE IN CANADA, 1928 - 1934

Years	By-Product and bee-hive coke		Gas retort coke		TOTAL	
	Selling value		Selling value		Selling value	
	Quantity short tons	at plants \$	Quantity short tons	at plants \$	Quantity short tons	at plants \$
1928	1,980,591	12,353,588	333,536	2,182,123	2,314,127	14,535,711
1929	2,372,219	15,928,466	305,352	2,009,192	2,677,581	17,947,658
1930	2,062,764	13,592,418	323,230	2,259,829	2,385,994	15,852,247
1931	1,512,381	10,157,011	320,319	2,262,730	1,832,700	12,419,741
1932	1,331,170	9,085,716	306,531	3,008,789	1,637,701	12,094,505
1933	1,500,448	9,847,600	271,716	2,618,595	1,772,164	12,466,195
1934	1,948,294	13,481,930	295,126	2,379,827	2,243,420	15,861,757

Table 15 - PRODUCTION OF BEE-HIVE, BY-PRODUCT AND GAS RETORT COKE, BY PROVINCES, 1928-1934

Years	Nova Scotia, New Brunswick and Quebec		Ontario		Manitoba, Alberta and British Columbia		C A N A D A	
	Selling value at works		Selling value at works		Selling value at works		Selling value at works	
	Quantity short tons	\$	Quantity short tons	\$	Quantity short tons	\$	Quantity short tons	\$
1928	703,297	3,926,491	1,443,512	9,332,926	167,318	1,276,294	2,314,127	14,535,711
1929	850,452	5,259,446	1,624,884	11,112,809	202,245	1,575,403	2,677,581	17,947,658
1930	680,911	4,361,204	1,516,080	10,021,292	189,003	1,469,751	2,385,994	15,852,247
1931	538,126	3,887,746	1,113,509	7,163,526	181,065	1,368,469	1,832,700	12,419,741
1932	407,330	3,115,737	1,087,122	7,876,941	147,249	1,101,827	1,637,701	12,094,505
1933	445,755	2,840,433	1,153,509	8,429,660	172,900	1,196,102	1,772,164	12,466,195
1934	654,305	4,369,150	1,383,709	10,200,363	200,406	1,292,244	2,243,420	15,861,757

Table 16 - COKE(x) SOLD AND USED BY PRODUCERS DURING 1933 and 1934 AND STOCKS ON HAND AT END OF YEAR (Short tons)

	Coke	Breeze	TOTAL
<u>1933</u>			
Coke actually used by reporting companies -			
In coke or gas plant	282,628	21,368	303,991
In associated metallurgical works	173,684	48,632	222,316
Coke sold -			
For domestic use	1,098,704	58,672	1,157,376
For other uses	181,107	17,579	198,686
Total	1,736,123	146,246	1,882,369
<u>1934</u>			
Coke actually used by reporting companies -			
In coke or gas plant	193,832	33,014	226,896
In associated metallurgical works	421,105	57,335	478,440
Coke sold -			
For domestic use	1,087,730	56,763	1,144,493
For other uses	288,426	41,997	330,423
Total	1,991,143	189,109	2,180,252
Stocks on hand at end of year	320,173	29,069	349,242

(x) Exclusive of petroleum coke.

Table 17 - PRODUCTION OF BEE-HIVE AND BY-PRODUCT COKE, BY MONTHS, 1928 - 1934.
(In 1000's of short tons)

Months	1928	1929	1930	1931	1932	1933	1934
January	182	221	225	171	151	150	195
February	169	202	204	165	144	128	169
March	182	228	224	179	156	139	192
April	174	220	213	169	143	122	185
May	193	231	210	169	129	134	185
June	195	221	193	155	119	136	179
July	200	225	182	139	127	145	183
August	191	227	182	132	121	150	189
September	194	220	170	126	127	156	188
October	210	233	185	140	131	173	204
November	205	224	185	144	143	174	199
December	219	226	213	144	147	166	175
TOTAL	2,314	2,678	2,386	1,833	1,638	1,772	2,243
Monthly Average	193	223	199	153	137	148	187

Table 18 - BITUMINOUS COAL CHARGED TO COKE OVENS AND GAS RETORTS, 1928 - 1934.

Years	Bee-hive and by-product ovens		Gas retorts		TOTAL
	Canadian	Imported	Canadian	Imported	
	(short tons)				
1928	829,157	1,876,502	80,382	413,118	3,199,159
1929	872,884	2,378,507	88,507	372,387	3,712,285
1930	640,167	2,097,921	96,299	356,656	3,191,043
1931	468,838	1,576,881	96,044	390,773	2,532,536
1932	351,960	1,413,328	97,304	354,420	2,217,012
1933	557,249	1,488,492	46,768	373,452	2,465,961
1934	803,321	1,836,668	40,982	435,133	3,116,104

Table 19 - BITUMINOUS COAL CHARGED TO COKE OVENS AND GAS RETORTS, BY PROVINCES, 1928 - 1934.

Years	Nova Scotia, New Brunswick and Quebec		Ontario		Manitoba, Alberta and British Columbia		TOTAL
	Canadian	Imported	Canadian	Imported	Canadian	Imported	
	(short tons)						
1928	696,605	340,896	9,424	1,800,181	203,510	58,543	3,199,159
1929	734,211	466,433	...	2,206,338	227,170	78,123	3,712,285
1930	515,793	433,414	...	1,963,195	220,673	57,968	3,191,043
1931	338,072	414,179	...	1,513,819	226,810	36,656	2,532,536
1932	271,496	295,114	105	1,435,964	177,663	36,670	2,217,012
1933	384,175	256,086	5,700	1,534,052	214,142	21,806	2,465,961
1934	556,628	359,210	700	1,911,920	286,975	671	3,116,104

Table 20 - PRODUCTION OF PETROLEUM COKE IN CANADA, 1928 - 1934.

Years	Made for own use		Made for sale		T O T A L	
	Selling value		Selling value		Selling value	
	Tons	at works \$	Tons	at works \$	Tons	at works \$
1928	15,547	93,882	80,361	467,548	95,908	561,430
1929	25,408	140,230	84,108	465,753	109,516	605,983
1930	23,538	124,363	68,549	392,945	92,087	517,308
1931	20,029	96,676	52,310	280,660	72,339	377,336
1932	19,278	104,181	53,787	293,755	73,065	397,936
1933	20,079	115,400	54,646	322,379	74,725	437,779
1934	9,293	57,961	52,467	200,512	61,760	258,473

NOTE - Petroleum coke is not included in coke production figures given for the coke and gas industry.

Table 21 - TOTAL PRODUCTION OF COKE IN CANADA, 1932 - 1934.

		P.E.I., N.S. and N.B.	Quebec	Ontario	Manitoba, Sask., Alberta and B.C.	CANADA
(short tons)						
<u>1932</u>						
Coke and Gas Industry ...	Tons	101,375	301,955	1,087,122	147,249	1,637,701
	\$	739,278	2,376,459	7,876,941	1,101,827	12,094,505
Petroleum Refining Industry	Tons	270	824	62,836	9,135	73,065
	\$	1,116	4,778	328,067	63,975	397,936
TOTAL	Tons	101,645	302,779	1,149,958	156,384	1,710,766
	\$	740,394	2,381,237	8,205,008	1,165,802	12,492,441
<u>1933</u>						
Coke and Gas Industry ...	Tons	194,634	251,121	1,153,509	172,900	1,772,164
	\$	1,055,023	1,785,410	8,429,660	1,196,102	12,466,195
Petroleum Refining Industry	Tons	358	1,810	62,601	9,956	74,725
	\$	1,519	10,972	344,686	80,602	437,779
TOTAL	Tons	194,992	252,931	1,216,110	182,856	1,846,889
	\$	1,056,542	1,796,382	8,774,346	1,276,704	12,903,974
<u>1934</u>						
Coke and Gas Industry ...	Tons	249,826	404,479	1,388,709	200,406	2,243,420
	\$	1,400,865	2,968,285	10,200,363	1,292,244	15,861,757
Petroleum Refining Industry	Tons	316	2,337	49,011	10,096	61,760
	\$	1,404	19,865	174,222	62,982	258,473
TOTAL	Tons	250,142	406,816	1,437,720	210,502	2,305,180
	\$	1,402,269	2,988,150	10,374,585	1,355,226	16,120,230

Table 22 - APPARENT CONSUMPTION OF COKE IN CANADA, BY PROVINCES, 1932 - 1934.

	P.E.I., N.S. and N.B.	Quebec	Ontario	Manitoba, Sask., Alberta and B.C.	CANADA
	(short tons)				
<u>1932</u>					
Production	101,645	302,779	1,149,958	156,384	1,710,766
Add declines in producers' stocks ...	...	13,797	...	...	13,797
	101,645	316,576	1,149,958	156,384	1,724,563
Deduct increases in producers' stocks	996	...	47,683	6,379	55,058
	100,649	316,576	1,102,275	150,005	1,669,505
Add imports (entered for consumption)	8,425	49,998	581,699	7,957	648,079
	109,074	366,574	1,683,974	157,962	2,317,584
Deduct exports	328	401	10,453	14,805	25,987
Apparent Consumption	108,746	366,173	1,673,521	143,157	2,291,597
<u>1933</u>					
Production	194,992	252,931	1,216,110	182,856	1,846,889
Add declines in producers' stocks ...	27,673	82,085	31,171	4,035	144,964
	222,665	335,016	1,247,281	186,891	1,991,853
Deduct increases in producers' stocks	...	...	...	...	...
	222,665	335,016	1,247,281	186,891	1,991,853
Add imports (entered for consumption)	6,972	28,666	582,806	9,165	627,609
	229,637	363,682	1,830,087	196,056	2,619,462
Deduct exports	80	346	16,332	4,816	21,574
Apparent Consumption	229,557	363,336	1,813,755	191,240	2,597,888
<u>1934</u>					
Production	250,142	406,816	1,437,720	210,502	2,305,180
Add declines in producers' stocks ...	...	...	...	...	...
	250,142	406,816	1,437,720	210,502	2,305,180
Deduct increases in producers' stocks	5,453	27,509	58,483	1,977	93,422
	244,689	379,307	1,379,237	208,525	2,211,758
Add imports (entered for consumption)	8,825	47,680	819,576	13,390	884,471
	253,514	421,987	2,198,813	221,915	3,096,229
Deduct exports	457	338	27,582	6,547	34,924
Apparent Consumption	253,057	421,649	2,171,231	215,368	3,061,305

Table 23 - ANALYSIS OF COKE CONSUMPTION IN CANADA BY PRINCIPAL USES, 1932 and 1933.

	P. E. I., N. S. and N. B.	Quebec	Ontario	Manitoba, Sask., Alberta and B. C.	CANADA
	(short tons)				
<u>1932</u>					
Furnace charges	39,558	14,301	182,255	69,926	306,040
Manufacturing material	252	94,979	102,914	6,760	204,905
Industrial fuel	28,897	37,679	228,717	32,195	327,488
Available for domestic use (by difference)	40,039	219,214	1,159,635	34,276	1,453,164
Apparent Consumption	108,746	366,173	1,673,521	143,157	2,291,597
<u>1933</u>					
Furnace charges	137,485	10,838	261,074	29,704	439,101
Manufacturing material	158	102,656	85,460	6,109	194,383
Industrial fuel	33,588	38,688	180,377	43,294	295,947
Available for domestic use (by difference)	58,326	211,154	1,286,844	112,133	1,668,457
Apparent Consumption	229,557	363,336	1,813,755	191,240	2,597,888

NOTES:-

1. Figures showing the tonnage of coke available for domestic use are obtained by difference and include the coke used for purposes other than specified in these tables.
2. No allowance has been made for changes during the year in stocks of coke held by dealers or users.
3. No allowance has been made for interprovincial shipments of coke. A special survey made by the Mines Branch, Department of Mines, Ottawa, shows that in 1932 about 34,790 tons of Quebec coke were used in Ontario for domestic purposes and about 10,585 tons of Ontario coke were used in Manitoba. In addition, about 40,000 tons of the imported coke used in Manitoba were brought in at Ontario ports of entry and, of course, is credited to Ontario in the above calculation.
4. Consumption figures for 1934 are not yet available.

Table 24 - CONSUMPTION OF COKE AS INDUSTRIAL FUEL IN THE MANUFACTURING AND MINING INDUSTRIES, 1932 and 1933.

	1932	1933
	(short tons)	
Maritimes	28,897	33,588
Quebec	37,679	38,688
Ontario	228,717	180,377
Western provinces	32,195	43,294
CANADA	327,488	295,947

Table 25 - COKE CHARGED TO BLAST FURNACES, FOUNDRY CUPOLAS, ETC., IN CANADA, 1932 and 1933.

	1932	1933
	(short tons)	
Maritime provinces	39,558	137,485
Quebec	14,301	10,838
Ontario	182,255	261,074
Western provinces	69,926	29,704
CANADA	306,040	439,101

Table 26 - COKE USED AS A MATERIAL(x) IN MANUFACTURING IN CANADA, 1932 and 1933.

	1932	1933
	(short tons)	
Maritime provinces	252	158
Quebec	94,979	102,656
Ontario	102,914	85,460
Western provinces	6,760	6,109
CANADA	204,905	194,383

(x) In making carbon electrodes, water gas, artificial abrasives, etc.

Table 27 - DELIVERIES OF PETROLEUM COKE FOR CONSUMPTION IN CANADA, 1933.
(From "Petroleum Fuels in Canada" issued by the Mines Branch, Ottawa).

Areas	Fuel for domestic heating(1)	Fuel for industrial heating(2)	TOTAL	Inventory on
				December 31, including stocks at refineries
	(short tons)			
Maritimes	383	...	383	...
Quebec	759	1,456	2,215	9,456
Ontario	48,286	13,170	61,456	5,871
Western provinces	5,402	12,945	18,149	10,658
CANADIAN	44,798	27,571	72,369	16,137
IMPORTED	9,834	...	9,834	9,848
TOTAL FOR 1933	54,632	27,571	82,203	25,985
TOTAL FOR 1932	57,634	36,189	93,823	42,023(3)

(1) As reported by coal dealers, distributors and importers.

(2) Consisting mostly of amounts used by refiners as fuel.

(3) Revised.

Table 28 - CONSUMPTION OF COKE IN IRON BLAST FURNACES IN CANADA, 1928-1934.

Years	Made in Canada from Canadian coal	Made in Canada from imported coal	Imported coke	TOTAL
		(short tons)		
1928	384,830	665,675	71,359	1,121,864
1929	406,290	680,140	84,741	1,171,171
1930	253,735	468,469	73,836	796,040
1931	116,880	301,477	30,438	448,845
1932	37,984	117,943	...	155,932
1933	135,323	80,500	32,151	247,974
1934	155,085	215,462	44,915	415,462

Table 29 - PRODUCTION AND SALES BY THE PRODUCERS OF ARTIFICIAL GAS IN CANADA, 1928-1934.

Years	From by-product and gas plants					Production of still gas from petroleum refineries
			Income from sales		M cu.ft.	
	Production	Quantity				
	M cu.ft.	M cu.ft.	\$			
1928	35,058,920	15,606,609	13,933,537		2,489,346	
1929	38,925,086	17,649,371	13,316,634		3,140,187	
1930	35,927,532	17,713,477	13,471,629		3,529,319	
1931	30,542,961	17,111,432	13,010,733		5,161,905	
1932	27,264,587	17,083,631	12,895,039		3,836,413	
1933	29,125,295	15,893,248	11,839,345		3,505,405	
1934	40,125,201	15,409,927	15,766,750		3,768,886	

Table 30 - PRODUCTION OF NATURAL GAS IN CANADA, BY PROVINCES, 1933 and 1934.

Provinces	1933		1934	
	M cu.ft.	Value \$	M cu.ft.	Value \$
New Brunswick	618,033	302,706	607,000	297,000
Ontario	7,166,659	4,523,085	7,327,474	4,396,484
Manitoba	600	180	600	180
Saskatchewan .....	...	...	13,781	4,823
Alberta	15,352,811	3,886,263	14,000,000	3,720,586
TOTAL	23,138,103	8,712,234	21,948,856	8,419,073

(x) Preliminary; subject to revision.

Table 31 - SALES OF MANUFACTURED GAS, NUMBER OF CUSTOMERS AND MILEAGE OF PIPE LINES, 1934.

	No. of customers	No. of active meters	Gas Sales(x)		Mileage of pipe lines		Approximate population served by
			M cu.ft.	\$	In terms of 3 inch mains	Actual of 3 inch mains	
Eastern provinces ..	217,864	217,277	5,346,979	6,005,868	970	2,031	1,495,000
Ontario	235,802	228,896	8,462,721	7,502,799	2,056	3,345	1,298,000
Western provinces ..	61,241	65,187	1,559,521	1,865,789	795	920	474,000
TOTAL	514,907	511,360	15,369,221	15,374,456	3,821	6,296	3,267,000

(x) Excluding Pintsch oil gas.

Table 32 - PRODUCTION OF CRUDE COAL TAR IN CANADA, BY PROVINCES, 1930 - 1934.

Provinces	1930	1931	1932	1933	1934
	Imp.gals.	Imp.gals.	Imp.gals.	Imp.gals.	Imp.gals.
Nova Scotia and New Brunswick	4,792,108	3,201,210	1,513,135	2,857,191	3,627,952
Quebec	3,572,374	3,139,901	3,226,665	3,138,508	4,035,935
Ontario	17,529,702	14,437,586	13,850,265	14,075,641	17,020,066
Manitoba	542,499	478,886	454,282	335,473	334,840
British Columbia	941,717	1,014,297	1,131,896	885,809	121,988
CANADA	27,378,400	22,271,880	20,176,843	21,292,622	25,840,781

Table 33 - PRODUCTION, IMPORTS AND EXPORTS OF AMMONIUM SULPHATE, 1928 - 1934.

Years	PRODUCTION(x)		IMPORTS		EXPORTS	
	Short tons	\$	Short tons	\$	Short tons	\$
1928	28,090	1,108,744	3,510	174,899	13,632	561,696
1929	34,141	1,293,953	1,723	80,019	24,489	909,510
1930	23,893	936,417	3,423	137,607	12,010	386,710
1931	28,354	706,197	12,830	369,254	5,627	167,477
1932	57,770	983,077	13,811	280,026	38,741	701,707
1933	82,534	1,437,749	4,156	100,415	62,383	1,081,392
1934	76,292	1,398,251	11,046	245,372	57,704	1,144,164

(x) Includes output of synthetic ammonium sulphate in the Fertilizers Industry.

Table 34 - GENERAL RATES FOR MANUFACTURED GAS IN CANADIAN TOWNS AND CITIES, 1934.

Towns or Cities	APPROXIMATE		GENERAL	RATE
	Per M cu.ft.	Gross	Discount	Service charge
Halifax, N.S.	2.00 - 1.10		10 cents	-
Saint John, N.B.	1.85 - 1.45		10 cents	60 cents per month
Quebec, P.Q.	1.66 - 0.90		10 per cent	-
Sherbrooke, P.Q.	1.35		10-20 per cent	-
Montreal, P.Q.	1.20 - 0.50		15 cents	50 cents per month
Barrie, Ont.	2.00		20 per cent	75 cents per month
Belleville, Ont.	1.60 - 1.00		10 cents penalty	50 cents per month
Brockville, Ont.	1.50		10 per cent	-
Guelph, Ont.	0.65 - 0.50		10 per cent penalty	-
Kingston, Ont.	1.38 - 1.00		10 per cent	33 cents per month meter rent.
London, Ont.	1.05 - 0.50		-	-
St. Thomas, Ont.	1.25 - 0.80		10 cents	50 cents per month
Toronto, Ont.	1.00 - 0.80		20 cents	50 cents per month
Cobourg, Ont.	2.20 - 1.65		10 per cent	55 cents per month
Oshawa, Ont.	1.45 - 1.00		10 cents	-
Whitby, Ont.	1.50 - 1.05		10 cents	-
Bowmanville, Ont.	1.50 - 1.05		10 cents	-
Peterborough, Ont.	1.45 - 1.00		10 per cent	45 cents per month
Kitchener, Ont.	1.00 (net)		-	-
Waterloo, Ont.	1.20 (net)		-	-
Ottawa, Ont.	1.36 - 1.00		10 cents	50 cents per month
Port Hope, Ont.	2.50		-	\$1.20 per year meter rent
Owen Sound, Ont.	1.25 - 1.10		10 per cent	19 cents per month meter rent
Stratford, Ont.	1.83 - 1.11		10 per cent	25 cents per month
Hamilton, Ont.	0.80 - 0.40		-	-
Sault Ste. Marie, Ont.	1.70 - 0.50		-	-
Brandon, Man.	2.10 - 1.26		10 per cent penalty	-
Winnipeg, Man.	1.47 (net)		-	-
Nelson, B.C.	2.25 - 1.25		25 cents	-
Vancouver, B.C.	1.25 - 1.15 (net)		-	-
New Westminster, B.C.) Burnaby, B.C.)	15 cents above Vancouver			
Victoria, B.C.	1.00 - 1.75		-	25 cents per month

DIRECTORY OF FIRMS IN THE COKE AND GAS INDUSTRY, 1934.

<u>Names</u>	<u>Location of plants</u>	<u>Number and type of ovens or retorts</u>
1. COKE PLANTS		
(a) <u>By-product</u>		
Dominion Steel and Coal Corporation Limited	Sydney, N. S.	180 Koppers Horizontal ovens.
Montreal Coke & Manufacturing Company (Montreal Light, Heat & Power Consolidated)	Montreal, P. Q.	59 Koppers Vecker type horizontal ovens; 4 Koppers Kerpely Ring type producers; 5 Western Gas Construction Co. Water Gas sets.
Algoma Steel Corporation Ltd., (Great Northern Gas Co. Ltd.)	Sault Ste Marie, Ont.	10 Koppers ovens and 50 Wilputte ovens.
Hamilton By-Product Coke Ovens Ltd. (United Gas & Fuel Co. Ltd.)	Hamilton, Ont.	25 Semet-Solvay ovens and 35 Wilputte ovens.
Steel Company of Canada, Limited	Hamilton, Ont.	80 Wilputte ovens
Winnipeg Electric Company	Winnipeg, Man.	17 Koppers Becker type horizontal ovens
Granby Consolidated Mining, Smelting and Power Co. Ltd.	Anyox, B. C.	10 American by-product ovens
B.C. Electric Power & Gas Co. Ltd.	Vancouver, B. C.	36 vertical Chamber ovens; 64 Glover-west continuous vertical retorts, 3 external mechanical producers for chamber oven plants, 8 internal step grate producers for continuous vertical plant; 2 water gas generators.

NOTE - Names of distributing companies in brackets.

(b) Beehive

International Coal & Coke Co. Ltd.	Coleman, Alberta	104 beehive ovens.
Crows Nest Pass Coal Co. Ltd.	Michel, B. C.	940 beehive ovens.

2. ILLUMINATING AND FUEL GAS PLANTS

(a) Retort coal gas (1); carburetted water gas (2); straight water gas (3); mixed coal and water gas (4)

Nova Scotia Light & Power Co. Ltd. (1)	Halifax, N. S.	12 Glover-West continuous vertical retorts.
New Brunswick Power Company (1)	Saint John, N. B.	24 Russell horizontal retorts.
City of Sherbrooke Gas and Electricity Department (2)	Sherbrooke, P. Q.	2 sets Western Gas water gas producers.
Quebec Power Company (Gas Division) (1) (2)	Quebec, P. Q.	12 Woodall-Duckham vertical continuous retorts.
Barrie Water, Light & Gas Commission (2)	Barrie, Ont.	2 vertical producers.
Board of Light & Heat Commissioners (1) (2)	Guelph, Ont.	6 Glover-West vertical continuous retorts and 1 water gas producer.

DIRECTORY OF FIRMS IN THE COKE AND GAS INDUSTRY, 1934 (concluded)

Names

Location of plants

Number and type of
ovens or retorts

2. ILLUMINATING AND FUEL GAS PLANTS (concluded)

Brockville Public Utilities Commission (2)	Brockville, Ont.	2 water gas producers.
City Gas Company of London (1) (2)	London, Ont.	66 horizontal recuperative retorts and 3 water gas producers.
Consumers Gas Company of Toronto (1) (2)	Toronto, Ont.	104 Glover-West vertical retorts; 220 Drakes Ltd. horizontal retorts; 8 sets water gas producers.
Gas Commission of St. Thomas (1)	St. Thomas, Ont.	4 benches of horizontal retorts.
Hydro Electric Power Commission of Ontario (1)	Cobourg, Ont.	10 horizontal retorts.
Ontario Shore Gas Company Ltd. (1)	Belleville, Ont.	4 Glover-West continuous vertical retorts.
Ontario Shore Gas Company Ltd. (2)	Oshawa, Ont.	2 water gas producers.
Ottawa Gas Company (1) (2)	Ottawa, Ont.	6 settings of 3 ovens each of the vertical intermittent type and 1 producer for each setting.
Peterborough Utilities Commission (2)	Peterborough, Ont.	2 water gas producers.
Port Hope Gas Company Ltd. (1)	Port Hope, Ont.	10 horizontal gas retorts
Public Utilities Commission (2)	Kingston, Ont.	2 sets water gas producers
Public Utilities Commission (1) (2)	Kitchener, Ont.	5 horizontal retorts.
Public Utilities Commission (1)	Owen Sound, Ont.	18 horizontal retorts.
Public Utility Commission (1)	Stratford, Ont.	12 horizontal retorts.
Manitoba Power Commission (1)	Brandon, Man.	12 Russell Mfg. Co. retort 12 Kerr-Murray retorts.
B.C. Electric Railway Co. (Victoria Gas Co.) (1) (2)	Victoria, B.C.	16 Glover-West vertical retorts.
Corporation City of Nelson (1)	Nelson, B. C.	8 horizontal retorts.

(b) Oil Gas

Pintsch Compressing Co.	McAdam, N. B.
	Montreal, P. Q.
	North Bay, Ont.
	Toronto, Ont.
	Winnipeg, Man.
	Moose Jaw, Sask.
	Edmonton, Alta.
	Vancouver, B. C.

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