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DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

THE COKE & GAS INDUSTRY

IN

CANADA

1933

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DEPARTMENT OF TRADE AND COMMERCE
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, 1933

The value of products made in the coke and gas plants in Canada during 1933 totalled $29,936,975. This value was slightly higher than the 1932 total of $29,812,650 which in turn was 5 per cent below the output of $31,249,460 in 1931. Capital employed in the industry in 1933 was $94,225,476, the average number of workers was 3,526, payments in salaries and wages amounted to $4,606,308, and the cost of materials for use in manufacturing was $12,729,075.

Records for 1933 show that 42 coke and gas plants were operated including 8 by-product plants, 2 beehive plants, 23 retort or carburetted water gas plants, 8 plants which made pintsch gas for lighting railway cars, and 1 which produced acetylene gas for domestic lighting and heating. Of these, 21 were located in Ontario, 6 in British Columbia, 4 in Quebec, 4 in Manitoba, 2 in each of Nova Scotia, New Brunswick and Alberta, and 1 in Saskatchewan.

Output of gas-house, by-product and beehive coke in Canada during 1933 totalled 1,772,164 tons as compared with 1,637,701 tons in the next preceding year and 1,832,700 tons in 1931. By-product coke plants along with the two beehive oven plants produced 1,500,448 tons and only 271,716 tons were obtained from the city gas plants. In addition 74,725 tons of petroleum coke were recovered as a by-product in petroleum refining; this tonnage has not been included in the coke production figures given elsewhere in this bulletin.

Production of artificial gas amounted to 29,125,295 M cubic feet of which 20,054,910 M cubic feet was from by-product coke ovens and 9,070,385 M cubic feet from other plants. Sales of gas by the producers totalled 15,893,248 M cubic feet valued at $11,839,345 of which 8,275,005 M cubic feet at $3,509,705 was from by-product plants and 7,618,243 M cubic feet at $8,329,640 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, 3,505,405 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 23,138.103 M cubic feet.

Imports of gas-house and by-product coke dropped to 644,075 tons in 1933 from 651,802 tons in 1932 and exports during the same period fell off to 5,199 tons from 15,469 tons. Gas entering Canada by pipe line was also lower at 100,854 M cubic feet as against 120,840 M cubic feet in 1932.

The number of customers served by the producers of illuminating and fuel gas in 1933 was 513,033; the number of active meters was 495,855 and the length of distributing mains was 3,880 miles (6,296 miles in terms of 3 inch pipe). The calorific value of the gas ranged from 450 - 550 B.T.U. per cubic foot.

Table 1 - DISTRIBUTION OF COKE AND GAS PLANTS BY PROVINCES, 1933.

Provinces	COKE PLANTS		GAS PLANTS			TOTAL
	By-product coke ovens	Bee-hive ovens	Retort coal gas and water gas	Acetylene gas for town lighting	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	1	4
Saskatchewan ...	...	...	...	...	1	1
Alberta	...	1	...	...	1	2
British Columbia	2	1	2	...	1	6
CANADA	8	2	23	1	8	42

Table 2 - SIZE OF ESTABLISHMENTS ACCORDING TO QUANTITY OF GAS PRODUCED, 1933.

M cu.ft.	Number of plants(z)	Total Production M cu.ft.
Under 10,000	4	25,501
10,000 - 50,000	7	208,167
50,000 - 100,000	3	193,247
100,000 - 175,000	5	699,391
175,000 - 300,000	...	...
300,000 - 610,000	5	2,115,523
610,000 -1,000,000	...	...
1,000,000 - 4,000,000	4	9,942,151
Over 4,000,000	3	15,890,202
TOTAL	31	29,080,182

(z) Excluding beehive ovens, pintsch gas and acetylene gas plants.

Table 3 - PRINCIPAL STATISTICS OF THE COKE AND GAS INDUSTRY, 1929 - 1933.

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
		$		$	$	$	$
COKE -							
1929	8	47,640,170	1,186	2,149,826	14,662,616	25,909,638	11,247,022
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	17,987,418	8,406,388
GAS -							
1929	35	47,108,892	2,716	3,788,988	3,854,598	14,000,805	10,146,207
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

Table 3 - PRINCIPAL STATISTICS OF THE COKE AND GAS INDUSTRY, 1929 - 1933 (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 -							
1929	43	94,749,062	3,902	5,938,814	18,517,214	39,910,443	21,393,229
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 -							
Nova Scotia and New Brunswick	4	9,014,046	241	256,104	988,702	1,879,160	890,458
Quebec	4	13,116,207	355	505,386	2,299,856	4,079,405	1,779,549
Ontario	21	51,474,083	2,343	3,128,426	8,173,829	20,314,537	12,140,708
Manitoba, Saskatchewan and Alberta	7	6,192,029	186	252,104	652,917	1,391,761	738,844
British Columbia	6	14,423,111	401	464,288	613,771	2,272,112	1,658,341
TOTAL	42	94,225,476	3,526	4,606,308	12,729,075	29,936,975	17,207,900

Table 4 - SIZE OF ESTABLISHMENTS, ACCORDING TO PRODUCTION, EMPLOYEES AND CAPITAL EMPLOYED, 1933.

	No. of plants	Capital Employed	Average number of employees	Selling value of products at works
		$	No.	$
(a) PRODUCTION				
Under $10,000	4	54,680	10	26,161
10,000 - 25,000	6	254,856	30	107,132
25,001 - 50,000	5	1,236,764	66	223,019
50,001 - 100,000.....	5	1,603,202	80	387,987
100,001 - 250,000	8	4,503,061	284	1,192,593
250,001 - 1,000,000	7	18,090,691	612	3,549,248
Over 1,000,000	7	68,482,222	2,444	24,450,835
TOTAL	42	94,225,476	3,526	29,936,975
(b) EMPLOYEES (Number)				
1 - 10	12	794,583	55	268,154
11 - 20	9	4,247,206	128	865,740
21 - 50	7	3,744,291	197	975,263
51 - 100	4	6,017,186	268	1,164,780
Over 100	10	79,422,210	2,878	26,663,538
TOTAL	42	94,225,476	3,526	29,936,975
(c) CAPITAL EMPLOYED				
Under $100,000	12	424,936	60	333,411
100,000 - 500,000	10	2,744,875	175	697,329
500,001 - 1,000,000.....	6	3,793,014	182	956,118
1,000,001 - 2,000,000	3	4,861,151	278	1,114,657
2,000,001 - 5,000,000	4	12,565,821	399	6,111,193
Over $5,000,000	7	69,835,679	2,432	20 724,267
TOTAL	42	94,225,476	3,526	29,936,975

Table 5 - CAPITAL EMPLOYED, BY CLASSES AND BY PROVINCES, 1932 and 1933.

Provinces	Present value of land, buildings, fixtures and machinery	Inventory value of materials on hand and stocks in process	Inventory value of finished products on hand	Operating capital (cash, bills and accounts receivable, prepaid expenses, etc.	TOTAL
	$	$	$	$	$
1932					
Nova Scotia and New Brunswick ...	6,469,291	1,189,749	225,000	1,202,972	9,087,012
Quebec	10,631,577	1,310,026	990,360	661,169	13,593,132
Ontario	42,782,565	2,513,552	391,801	5,961,077	51,648,995
Manitoba, Saskatchewan and Alberta	5,454,410	25,337	30,385	110,816	5,620,948
British Columbia .	12,949,086	400,769	17,830	216,723	13,584,408
CANADA	78,286,929	5,439,433	1,655,376	8,152,757	93,534,495
1933					
Nova Scotia and New Brunswick ...	6,493,574	1,281,563	214,000	1,024,909	9,014,046
Quebec	10,665,893	1,304,085	435,000	711,229	13,116,207
Ontario	42,126,181	2,650,410	374,089	6,323,403	51,474,083
Manitoba, Saskatchewan 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

Table 6 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1932 and 1933.

Provinces	Number of Employees					Salaries	Wages	TOTAL SALARIES AND WAGES
	On salaries		On wages		TOTAL			
	Male	Female	Male	Female				
						$	$	$
1932								
Nova Scotia and New Brunswick ...	40	7	164	...	211	68,042	171,454	239,496
Quebec	92	11	280	...	383	195,669	357,898	553,567
Ontario	448	183	1,826	6	2,463	986,098	2,477,007	3,463,105
Manitoba, Saskatchewan and Alberta	35	25	150	...	210	79,308	147,470	226,778
British Columbia .	77	12	283	...	372	151,635	263,165	414,800
CANADA	692	238	2,703	6	3,639	1,480,752	3,416,994	4,897,746
1933								
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, Saskatchewan 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

Table 7 - WAGE-EARNERS, BY MONTHS, 1932 and 1933. (On 15th of each month or nearest representative date)

Months	1932 Male	1932 Female	1932 TOTAL	1933 Male	1933 Female	1933 TOTAL
January	2,739	5	2,744	2,539	3	2,542
February	2,711	5	2,716	2,506	3	2,509
March	2,742	5	2,747	2,507	3	2,510
April	2,734	5	2,739	2,541	3	2,544
May	2,745	5	2,750	2,600	3	2,603
June	2,723	5	2,728	2,563	3	2,566
July	2,670	5	2,675	2,611	4	2,615
August	2,652	5	2,657	2,713	3	2,716
September	2,709	5	2,714	2,680	3	2,683
October	2,700	6	2,706	2,687	3	2,690
November	2,687	7	2,694	2,732	3	2,735
December	2,658	7	2,665	2,725	3	2,728
AVERAGE	2,703	6	2,709	2,616	4	2,620

Table 8 - FUEL AND ELECTRICITY USED, 1932 and 1933.
Note:- Includes fuel for boilers, benches, retorts, etc., but does not include coal, coke, etc., charged to ovens or retorts.

Kinds	Unit of measure	1932 Quantity	1932 Cost at works	1933 Quantity	1933 Cost at works
			$		$
Coal, bituminous - Canadian	short ton	10,228	33,711	6,930	29,076
Coal, bituminous - Imported	short ton	17,868	103,165	18,709	101,156
Coal, anthracite	short ton	919	5,085	1,514	5,096
Coal, lignite - Canadian	short ton	174	499	804	2,239
Coke (all made in users' works)	short ton	103,376	495,384	108,881	535,112
Fuel oil	Imp. gal.	159,900	11,321	5,164	534
Gas (all made in users' works)	M cu.ft.	6,516,515	1,405,476	7,175,766	1,672,985
Gasoline	Imp. gal.	4,570	810	6,217	988
Other fuel	xxx	...	21,866	...	18,400
Electricity purchased	K.W.H.	19,531,928	146,097	23,046,000	241,004
TOTAL	xxx	...	2,223,414	...	2,606,590

Table 9 - POWER EQUIPMENT, 1932 and 1933.

	1932 Number of units	1932 Total rated horse power	1933 Number of units	1933 Total rated horse power
Steam engines and turbines	221	7,264	210	7,061
Diesel engines			1	7
Gasoline, gas and oil engines	3	83	3	79
Hydraulic turbines or water wheels	1	3	...	...
Total Primary	225	7,350	214	7,147
Electric motors run by purchased power	777	19,293	847	21,144
TOTAL	1,002	26,643	1,061	28,291
Electric motors run by primary units shown above	270	6,858	109	2,172
Total Electric Motors	1,047	26,151	956	23,316
Boilers	232	22,870	239	23,415

Table 10 - MATERIALS USED IN COKE AND GAS PLANTS, 1932 and 1933.

Materials	Unit of measure	1932 Quantity	1932 Cost at works $	1933 Quantity	1933 Cost at works $
Bituminous coal:-					
(a) Canadian	short ton	449,264	2,175,573	604,017	2,491,991
(b) Foreign	short ton	1,767,748	8,134,302	1,861,944	8,405,030
Coke for gas-making:-					
(a) Purchased	short ton	4,507	42,225	4,614	43,343
(b) Companies' own make	short ton	118,338	854,525	108,654	732,662
Oil used for enriching water gas	Imp. gal.	9,849,710	580,816	9,558,945	610,147
Oil used for making oil gas	Imp. gal.	1,796,878	109,522	756,410	56,546
Absorbing and wash oil	Imp. gal.	135,816	14,294	261,583	33,796
Calcium carbide	lb.	40,000	1,691	28,000	1,236
Caustic soda	lb.	201,981	6,499	384,452	12,643
Lime	tons	691	5,728	1,374	8,784
Water	xx	...	16,197	...	15,672
Oxide or purifying materials	tons	3,736	35,284	2,734	29,076
Sulphuric acid, 66° Bé.	lb.	19,062,397	124,787	28,905,528	187,420
All other materials ...	xx	...	140,255	...	100,729
TOTAL COST	xx	...	12,241,698	...	12,729,075

Table 11 - MATERIALS USED IN COKE AND GAS PLANTS, BY AREAS, 1933.

Materials	Unit of measure	EASTERN PROVINCES Quantity	EASTERN PROVINCES Cost at works $	ONTARIO Quantity	ONTARIO Cost at works $	WESTERN PROVINCES Quantity	WESTERN PROVINCES Cost at works $
Bituminous coal:-							
(a) Canadian ..	short ton	384,175	1,433,593	5,700	34,400	214,142	1,023,998
(b) Foreign ..	short ton	256,086	1,190,757	1,584,052	7,054,858	21,806	159,415
Coke for gas making:-							
(a) Purchased .	short ton	1,097	11,038	3,517	32,305	...	...
(b) Companies' own make .	short ton	57,272	390,107	45,631	293,776	5,751	48,779
Oil used for enriching water gas	Imp. gal.	1,653,221	82,017	7,667,426	516,319	238,298	11,811
Oil used for making oil gas	Imp. gal.	313,030	19,265	250,806	18,611	192,574	18,670
Absorbing and wash oil	Imp. gal.	103,500	11,393	158,083	22,403	...	...
Calcium carbide.	lb.	...	...	...	...	28,000	1,236
Caustic soda ...	lb.	...	...	384,452	12,643	...	...
Lime	ton	756	3,163	615	5,565	3	56
Water	xx	...	9,815	...	5,117	...	740
Oxide or purifying materials	ton	324	4,718	2,321	22,375	93	1,983
Sulphuric acid, 66° Bé	lb.	6,587,576	39,806	22,317,952	147,614	...	...
All other materials	xx	...	92,886	...	7,843	...	...
TOTAL	xx	...	3,288,558	...	8,173,829	...	1,266,688

Table 12 - PRODUCTS MADE IN COKE AND GAS PLANTS, 1932 and 1933.

Products	Unit of measure	1932 Quantity	1932 Selling value at works $	1933 Quantity	1933 Selling value at works $
GAS -					
Retort coal gas	M cu.ft.	6,159,569	...	5,152,081	...
Coke oven gas	M cu.ft.	16,871,341	...	20,054,910	...
Straight water gas	M cu.ft.	125,508	...	35,931	...
Carburetted water gas	M cu.ft.	3,987,610	...	3,763,814	...
Mixed coal and water gas	M cu.ft.	72,419	...	73,446	...
Oil gas	M cu.ft.	47,975	...	44,136	...
Acetylene gas	M cu.ft.	165	...	977	...
Total Gas Made	M cu.ft.	27,264,587	...	29,125,295	...
Gas sold	M cu.ft.	17,083,631	12,895,039	15,893,248	11,839,345
Gas used in own plants	M cu.ft.	6,274,218	1,392,273	7,166,473	1,668,524
Gas used in associated metallurgical works	M cu.ft.	4,300,510	686,498	6,314,165	908,697
Gas otherwise accounted for, but not sold	M cu.ft.	160,947	58,258	133,329	46,619
Gas not accounted for	M cu.ft.	781,796	816,696	844,069	881,654
COKE -					
Coke from by-product or bee-hive ovens	short ton	1,184,875	8,740,263	1,403,749	9,572,108
Coke from gas retorts	short ton	276,616	2,878,890	243,904	2,474,958
Coke breeze from by-product ovens	short ton	146,295	345,453	96,699	275,492
Coke breeze from gas retorts	short ton	29,915	129,899	27,812	143,637
Total Coke	short ton	1,637,701	12,094,505	1,772,164	12,466,195
OTHER PRODUCTS -					
Tar	Imp. gal.	20,176,843	1,158,506	21,292,622	1,172,797
Ammonia liquor	Lb.N.H.3	1,700,152	20,352	1,607,326	18,729
Ammonia sulphate	lb.	22,099,250	212,182	33,446,959	318,973
Benzol	Imp. gal.	2,331,171	475,300	2,645,649	552,595
Light oils	Imp. gal.	918	184	57,925	61,250
All other products	xx	...	2,857	...	1,597
GRAND TOTAL	xx	...	29,812,650	...	29,936,975

Table 13 - PRODUCTS MADE IN COKE AND GAS PLANTS, BY AREAS, 1933.

Products	Unit of measure	EASTERN PROVINCES Quantity	EASTERN PROVINCES Selling value of products at works	ONTARIO Quantity	ONTARIO Selling value of products at works	WESTERN PROVINCES Quantity	WESTERN PROVINCES Selling value of products at works
			$		$		$
GAS -							
Retort coal gas	M cu.ft.	499,883	...	4,521,943	...	294,798	...
Coke oven gas	M cu.ft.	6,622,491	...	11,282,999	...	1,984,877	...
Straight water gas	M cu.ft.	35,931	...	...	...	...	...
Carburetted water gas	M cu.ft.	753,376	...	2,918,643	...	91,795	...
Mixed coal and water gas	M cu.ft.	...	...	73,446	...	...	...
Oil gas	M cu.ft.	17,382	...	11,080	...	15,674	...
Acetylene gas	M cu.ft.	...	...	859	...	118	...
Total Gas Made	M cu.ft.	7,929,063	...	18,808,970	...	2,387,262	...
Gas sold	M cu.ft.	5,879,891	2,301,267	8,401,715	7,496,604	1,611,642	2,041,474
Gas used in own plants	M cu.ft.	1,352,955	109,234	5,442,466	1,495,658	371,052	63,632
Gas used in associated metallurgical works	M cu.ft.	1,773,937	141,949	4,383,436	749,501	156,792	17,247
Gas otherwise accounted for, but not sold	M cu.ft.	426	361	131,311	44,640	1,592	1,618
Gas not accounted for	M cu.ft.	67,767	86,398	530,133	527,797	246,169	267,459
COKE -							
Coke from by-product or bee-hive ovens	short ton	381,817	2,598,678	863,525	5,860,042	158,407	1,113,388
Coke from gas retorts	short ton	17,117	125,234	216,175	2,278,121	10,612	71,603
Coke breeze from by-product ovens	short ton	42,940	105,062	50,284	160,005	3,475	10,425
Coke breeze from gas retorts	short ton	3,881	11,459	23,525	131,492	406	686
Total Coke	short ton	445,755	2,840,433	1,153,509	8,429,660	172,900	1,196,102
OTHER PRODUCTS -							
Tar	Imp. gal.	5,995,699	334,219	14,075,641	766,621	1,221,282	71,957
Ammonia liquor	Lb. N.H.3	...	...	1,518,805	15,188	88,521	3,541
Other products	xx	...	144,704	...	788,868	...	843
GRAND TOTAL	xx	...	5,958,565	...	20,314,537	...	3,663,873

Table 14 - PRODUCTION OF BEE HIVE, BY-PRODUCT AND GAS RETORT COKE IN CANADA, 1928-1933.

Years	Metallurgical coke		Gas house coke		TOTAL	
	Quantity	Selling value at plants	Quantity	Selling value at plants	Quantity	Selling value at plants
	short tons	$	short tons	$	short tons	$
1928	1,980,591	12,353,588	333,536	2,182,123	2,314,127	14,535,711
1929	2,372,229	15,938,466	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

Table 15 - PRODUCTION OF BEEHIVE, BY-PRODUCT AND GAS-RETORT COKE, BY PROVINCES, 1928-1933.

Years	Nova Scotia, New Brunswick and Quebec		Ontario		Manitoba, Alberta and British Columbia		CANADA	
	Quantity	Selling value at works	Quantity	Selling value at works	Quantity	Selling value at works	Quantity	Selling value at works
	short tons	$	short tons	$	short tons	$	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 ..	403,330	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

Table 16 - COKE(x) SOLD AND USED BY PRODUCERS DURING 1932 and 1933 AND STOCKS ON HAND AT END OF YEAR (Short tons)

	Coke	Breeze	TOTAL
1932			
Coke actually used by reporting companies -			
In coke or gas plant	274,350	23,307	297,657
In associated metallurgical works	149,382	82,209	231,591
Coke sold -			
For domestic use	876,490	44,299	920,789
For other uses	64,253	17,774	82,027
Total	1,364,475	167,589	1,532,064
Stocks on hand at end of year	309,852	59,421	369,273
1933			
Coke actually used by reporting companies -			
In coke or gas plant	282,628	21,363	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
Stocks on hand at end of year	191,302	51,519	242,821

(x) Exclusive of petroleum coke.

Table 17 - PRODUCTION, IMPORTS, EXPORTS AND APPARENT CONSUMPTION OF COKE(x), BY PROVINCES, 1932 and 1933.

		Nova Scotia, New Brunswick and Quebec	Ontario	Manitoba, Saskatchewan, Alberta and British Columbia	CANADA
		short tons	short tons	short tons	short tons
Production	1932 ...	403,330	1,087,122	147,249	1,637,701
	1933 ...	445,755	1,153,509	172,900	1,772,164
Imports	1932 ...	38,682	605,307	7,813	651,802
	1933 ...	19,286	615,818	8,971	644,075
Exports	1932 ...	664	...	14,805	15,469
	1933 ...	383	...	4,816	5,199
Apparent Consumption .	1932 ...	441,348	1,692,429	140,257	2,274,034
	1933 ...	464,658	1,769,327	177,055	2,411,040

(x) Exclusive of petroleum coke.

Table 18 - COKE DISTRIBUTED(x) FOR DOMESTIC HEATING PURPOSES IN QUEBEC, ONTARIO AND MANITOBA, 1928 - 1932.
(Figures compiled by the Mines Branch, Department of Mines, Ottawa)

	1928	1929	1930	1931	1932
			(short tons)		
(a) QUEBEC					
By-product coke -					
La Salle coke	70,780	118,475	160,128	175,551	144,502
Dosco coke (Sydney)	7,259	1,758	130	210	279
Hamilton By-Product coke	45	Nil	393	Nil	28
Petroleum coke	312	351	359	182	424
United States coke	11,579	13,409	5,077	3,573	635
British coke	Nil	Nil	Nil	Nil	27,561
Total By-Product	89,975	133,993	166,087	179,516	173,429
Gas coke -					
Canadian (made in Quebec) ...	71,309	174	3,750	7,344	8,490
Imported	953	1,324	564	Nil	Nil
Total Gas	72,262	1,498	4,314	7,344	8,490
TOTAL COKE	162,237	135,491	170,401	186,860	181,919
(b) ONTARIO					
By-product coke -					
Algoma coke	28,782	33,019	28,681	76,330	58,706
Hamilton By-Product coke	150,048	173,079	211,594	220,450	293,210
La Salle coke	11,720	25,455	28,750	31,373	34,790
Stelco coke (Hamilton)	150,325	107,375	156,000	174,667	233,670
Petroleum coke	13,866	34,041	29,814	21,619	48,739
United States coke	497,703	614,305	521,400	444,955	461,911
Total By-Product	852,444	987,274	976,239	969,394	1,131,026
Gas coke -					
Canadian (Made in Ontario) ..	72,656	85,221	94,287	90,996	92,117
TOTAL COKE	925,100	1,072,495	1,070,526	1,060,390	1,223,143

Table 18 - COKE DISTRIBUTED(x) FOR DOMESTIC HEATING PURPOSES IN QUEBEC, ONTARIO AND MANITOBA, 1928-1932. (concluded)
(Figures compiled by the Mines Branch, Department of Mines, Ottawa)

	1928	1929	1930	1931	1932
			(short tons)		
(c) MANITOBA					
By-product coke -					
Algoma coke	1,097	746	26	1,397	10,585
Petroleum and pitch cokes	1,562	1,288	1,712	1,193	953
Winnipeg 'Koppers' coke	22,549	27,060	20,614	20,224	29,814
United States coke	70,325	88,586	82,207	74,173	49,857
Total By-product	95,533	117,680	104,559	96,987	91,209
Gas coke -					
Canadian (Made in Manitoba)	685	693	700	451	568
TOTAL COKE	96,218	118,373	105,259	97,438	91,777

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

Table 19 - CONSUMPTION OF COKE AS INDUSTRIAL FUEL IN THE MANUFACTURING AND MINING INDUSTRIES, 1930 - 1932.

	1930	1931	1932
	(short tons)		
Maritimes	27,906	21,328	28,897
Quebec	61,879	45,645	37,679
Ontario	217,472	204,663	228,757
Western provinces	40,848	34,423	32,195
CANADA	348,105	306,059	327,528

NOTE:- 1933 figures not yet available.

Table 20 - COKE CHARGED TO BLAST FURNACES, FOUNDRY CUPOLAS, ETC., IN CANADA, 1930-1932.

	1930	1931	1932
	(short tons)		
Maritime provinces	258,235	120,155	39,558
Quebec	30,437	23,779	14,301
Ontario	929,885	486,187	182,255
Western provinces	83,777	80,185	69,926
CANADA	1,302,334	710,306	306,040

NOTE:- 1933 figures not yet available.

Table 21 - COKE USED AS A MATERIAL(x) IN MANUFACTURING IN CANADA, 1930 - 1932.

	1930	1931	1932
	(short tons)		
Maritime provinces	346	258	252
Quebec	133,358	116,195	94,979
Ontario	172,708	83,564	102,914
Western provinces	8,003	6,659	6,760
CANADA	314,415	206,676	204,905

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

NOTE:- 1933 figures not yet available.

Table 22 - PRODUCTION OF COKE, BY MONTHS, 1928 - 1933.
(In 1000's of short tons)

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

Table 23 - BITUMINOUS COAL CHARGED TO COKE OVENS AND GAS RETORTS, 1928 - 1933.

Years	Beehive 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

Table 24 - BITUMINOUS COAL CHARGED TO COKE OVENS AND GAS RETORTS, BY PROVINCES, 1928 - 1933.

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	734,221	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	...	1,516,819	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	1,584,052	214,142	21,806	2,465,961

Table 25 - PRODUCTION OF PETROLEUM COKE IN CANADA, 1928-1933.

Years	Made for own use		Made for sale		T O T A L	
	Tons	Selling value at works	Tons	Selling value at works	Tons	Selling value 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

NOTE - Petroleum coke is not included in other coke production figures given in this bulletin.

Table 26 - DELIVERIES OF PETROLEUM COKE FOR CONSUMPTION IN CANADA, 1932.
(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	428	Nil	428	
Quebec	568	9,445	10,013	
Ontario	48,739	18,667	67,406	
Western provinces	7,899	8,077	15,976	
CANADIAN	48,072	22,913	70,985	38,071
IMPORTED	9,562	13,276	22,838	16,145
TOTAL FOR 1932	57,634	36,189	93,823	54,216
TOTAL FOR 1931	32,439	47,757	80,196	53,160

(1) As reported by coal dealers, distributors and importers.
(2) Consisting mostly of amounts used by refiners as fuel.

Table 27 - CONSUMPTION OF COKE IN IRON BLAST FURNACES IN CANADA, 1928-1933.

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	30,488	448,845
1932	37,984	117,948	...	155,932
1933	135,323	80,500	32,151	247,974

Table 28 - PRODUCTION AND SALES BY THE PRODUCERS OF ARTIFICIAL GAS IN CANADA, 1928-1933

Years	From by-product and gas plants			Production of still gas from petroleum refineries
		S A L E S		
	Production	Quantity	Income from sales	
	M cu.ft.	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	13,316,684	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

Table 29 - PRODUCTION OF NATURAL GAS IN CANADA, BY PROVINCES, 1932 and 1933.

Provinces	1932 M cu.ft.	1932 Value $	1933 M cu.ft.	1933 Value $
New Brunswick	662,452	326,191	618,033	302,706
Ontario	7,386,154	4,719,297	7,166,659	4,523,085
Manitoba	600	180	600	180
Alberta	15,370,968	3,853,794	15,352,811	3,886,263
TOTAL	23,420,174	8,899,462	23,138,103	8,712,234

In Table 30 - see errata slip attached

Table 30 - SALES OF MANUFACTURED GAS, NUMBER OF CUSTOMERS AND MILEAGE OF PIPE LINES, BY PROVINCES, 1933.

Provinces	No. of customers	No. of active meters	GAS SALES M cu.ft.	GAS SALES $	Mileage of pipe lines Actual mains	Mileage of pipe lines In terms of 3 inch
Nova Scotia, New Brunswick and Quebec	61,051	67,089	1,109,318	1,933,706	878.7	989.5
Ontario	239,171	229,401	7,959,725	7,645,319	967.6	3,299.5
Alberta	...	...	...	...	...	...
Manitoba and British Columbia	212,811	199,365	5,584,273	6,291,978	2,033.3	2,007.5
CANADA	513,033	495,855	14,653,316	15,871,003	3,879.6	6,296.5

Table 31 - PRODUCTION OF CRUDE COAL TAR IN CANADA, BY PROVINCES, 1929 - 1933.

Provinces	1929	1930	1931	1932	1933
	Imp. gals.	Imp.gals.	Imp.gals.	Imp.gals.	Imp.gals.
Nova Scotia and New Brunswick	7,049,335	4,792,108	3,201,210	1,513,135	2,857,191
Quebec	3,204,004	3,572,374	3,139,901	3,226,665	3,138,508
Ontario	18,212,216	17,529,702	14,437,586	13,850,265	14,075,641
Manitoba	665,074	542,499	478,886	454,882	335,473
British Columbia	988,847	941,717	1,014,297	1,131,896	885,809
CANADA	30,119,476	27,378,400	22,271,880	20,176,843	21,292,622

Table 32 - PRODUCTION, IMPORTS AND EXPORTS OF AMMONIUM SULPHATE, 1928 - 1933.

Years	PRODUCTION Short tons	PRODUCTION $	IMPORTS Short tons	IMPORTS $	EXPORTS Short tons	EXPORTS $
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	25,893	936,417	3,425	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

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C O R R E C T I O N

BULLETIN 32-17-10-34 - THE COKE AND GAS INDUSTRY IN CANADA, 1933.

For Table 30, page 14, please substitute the following:-

Table 30 - SALES OF MANUFACTURED GAS, NUMBER OF CUSTOMERS AND MILEAGE OF PIPE LINES, BY PROVINCES, 1933.

Provinces	No.of tomers	No.of active meters	GAS SALES		Mileage of pipe lines	
			M cu.ft.	$	Actual	In terms of 3 inch mains
Nova Scotia, New Brunswick and Quebec	212,811	199,365	5,584,273	6,291,978	967.6	2,007.5
Ontario	239,171	229,401	7,959,725	7,645,319	2,033.3	3,299.5
Manitoba and British Columbia	61,051	67,089	1,709,318	1,933,706	878.7	989.5
TOTAL	513,033	495,855	15,253,316	15,871,003	3,879.6	6,296.5

Table 33 - RATES FOR MANUFACTURED GAS IN CANADIAN TOWNS AND CITIES, 1933.

Towns or Cities	APPROXIMATE GENERAL RATE		
	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	$1.50 per month
Barrie, Ont.	2.00	20 per cent	75 cents per month
Belleville, Ont.	1.60 - 1.00	-	-
Brockville, Ont.	1.50	10 per cent	-
Guelph, Ont.	0.75 - 0.60	-	-
Kingston, Ont.	1.38 - 1.00	10 per cent	17 cents per month meter rent.
London, Ont.	1.05 - 0.50	-	-
St. Thomas, Ont.	1.10 - 0.80	10 cents	50 cents per month
Toronto, Ont.	1.00 - 0.90	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	-	-
Whitby, Ont.	1.50 - 1.05	-	-
Bowmanville, Ont.	1.50 - 1.05	-	-
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.	1.33 - 1.11	10 per cent	25 cents per month meter rent
Hamilton, Ont.	0.80 - 0.40	-	-
Sault Ste. Marie, Ont.	1.70 - 0.50	-	-
Brandon, Man.	2.10	-	-
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 meter rent.

Table 34 - SUMMARY OF COKE AND GAS MAKING EQUIPMENT, 1933.

Type of ovens, retorts or producers	Number	Estimated daily capacity	
		Gas	Coke
		M cu.ft.	Tons
By-product ovens:			
Horizontal Koppers	366	78,490	4,579
Semet Solvay	25	3,500	257
Wilputte	165	28,500	2,957
American By-Product	10	1,400	100
Chamber ovens	36	4,500	140
Vertical ovens (special type)	12	1,000	85
Total by-product	614	117,390	8,118
Beehive ovens	1,035	...	845
Gas retorts:			
Glover West verticals	222	12,810	499
Horizontal	132	2,005	98
Drakes Ltd. horizontal	220	5,000	330
Woodall-Duckham verticals	12	1,000	51
Russell horizontal	24	200	10
Parker Russell Mfg. Co.	12	40	3
Kerr Murray	12	40	3
Total retorts	634	21,095	994
Producers	33	76,690	...
TOTAL, ALL TYPES	2,316	215,175	9,957

DIRECTORY OF FIRMS IN THE COKE AND GAS INDUSTRY, 1933

Names	Location of plants	Number and type of ovens or retorts
1. COKE PLANTS		
(a) By-product		
Dominion Steel and Coal Corporation Limited	Sydney, N.S.	180 Koppers horizontal ovens.
Montreal Coke & Manufacturing Company	Montreal, P.Q.	59 Koppers Becker type horixontal ovens; 4 Koppers Kerpely Ring type producers; 5 Western Gas Construction Co. Water Gas sets.
Algoma Steel Corporation Ltd.	Sault Ste.Marie,Ont.	110 Koppers ovens and 50 Wilputte ovens.
Hamilton By-Product Coke Ovens 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 Chamber ovens; 64 Glover-West Vertical retorts; 2 Humphrey Glasgow self clinkering type water gas producers

DIRECTORY OF FIRMS IN THE COKE AND GAS INDUSTRY, 1933. (continued)

Names	Location of Plants	Number and type of ovens or retorts
1. COKE PLANTS (concluded)		
(b) Beehive		
International Coal & Coke Co.Ltd.	Coleman, Alberta	95 beehive ovens.
Crows Nest Pass Coal Co. Ltd.	Fernie and 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.
Brockville Public Utilities Commission (2)	Brockville, Ont.	2 water gas producers.
City Gas Company of London (1) (2)	London, Ont.	66 horixontal 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 (4)	St. Thomas, Ont.	4 benches of horizontal retorts.
Hydro Electric Power Commission of Ontario (1)	Cobourg, Ont.	9 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)	Ottawa, Ont.	16 Glover-West vertical retorts; 12 vertical coke ovens.
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. retorts; 12 Kerr-Murray retorts.

DIRECTORY OF FIRMS IN THE COKE AND GAS INDUSTRY, 1933. (concluded)

Names	Location of plants	Number and type of ovens or retorts
2. ILLUMINATING AND FUEL GAS PLANTS - concluded		
(a)-Retort coal gas (1); carburetted water gas (2); straight water gas (3); mixed coal and water gas (4).		
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, Alberta Vancouver, B.C.	
(c) Acetylene Gas		
Shawinigan Chemicals Ltd.	Morris, Man.	

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