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M. T. Lough



CANADA
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL & CHEMICAL BRANCH

THE LIME INDUSTRY
IN
CANADA
1935

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DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
MINING, METALLURGICAL AND CHEMICAL BRANCH
OTTAWA, CANADA

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LIME, 1935

According to finally revised statistics issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics, Ottawa, sales of lime in 1935 by Canadian producers, including both quick and hydrated, and inclusive of lime used by producers, amounted to 405,419 short tons valued at \$2,925,791 as compared with 368,113 short tons worth \$2,745,797 in 1934. The 1935 output represents an increase of 10.1 per cent in quantity and 6.5 per cent in value over that of the preceding year. Lime production in Canada has shown an upward trend in both tonnage and value since 1932 and the output in 1935 was the greatest since 1930 in which year 490,802 tons worth \$4,038,698 was recorded.

Lime was produced during 1935 in every province with the exception of Prince Edward Island and Saskatchewan; Ontario and Quebec are the two largest producers, the tonnage of their shipments being 54.3 per cent and 28.7 per cent, respectively, of the Dominion total in 1935.

Industries consuming lime as a chemical absorbed 260,885 tons valued at \$1,775,657 in 1935 while a tonnage of 144,534 worth \$1,150,134 was utilized for building and other non-chemical purposes; of the latter tonnage 80,250 tons valued at \$595,750 was recorded for agricultural purposes.

Of the total lime produced in 1935 quicklime comprised 342,047 short tons and hydrated, 63,372 short tons. A comparison of production with that of the preceding year reveals a 10.0 per cent increase in the tonnage of quicklime and a 5.6 per cent increase in that for the hydrated variety. The combined tonnage of both kinds of lime shipped for chemical purposes comprised 64.3 per cent of the total 1935 lime output; increased consumption as a chemical was particularly pronounced in the shipments to gold mines and pulp and paper plants and the increases recorded for these and various other lime consuming industries reflects the almost general improvement in industrial conditions throughout the country.

Canadian producers received an average of \$7.09 per ton for quicklime and \$7.90 for hydrated lime in 1935 as compared with \$7.26 and \$8.46, respectively, in the preceding year.

During 1935 the 49 firms comprising the Canadian lime industry provided employment for 756 persons and distributed \$556,049 in salaries and wages. The industry consumed \$810,437 in fuel, electricity and process supplies and of this total \$431,541 represented expenditures for coal; \$69,224 for coke and \$120,236 for wood.

A report recently issued by the Mines Branch, Department of Mines, Ottawa, contains the following information: "The placing of pulverized quicklime on the market by a number of Canadian lime companies is a development worthy of note. This product finds a market in the chemical and metallurgical industries and it also competes with hydrated lime for plastering purposes on account of the fact that on being slaked it yields a

highly plastic putty that does not require more ageing than does putty made from hydrated lime. Sales have increased rapidly, particularly in Western Canada where highly plastic hydrated lime is not cheaply available. Producers report that pulverized lime packed in air-tight bags will keep for 4 to 6 months without air-slaking, as against 2 to 3 weeks for lump lime; during 1935 a Canadian company began the manufacture of waterproof lime, which is a pulverized quicklime to which certain waterproofing ingredients have been added. Localities where lime may be produced in the future are numerous because of the abundance of suitable limestone in most parts of Canada."

Imports of lime into Canada during 1935 totalled 12,706 cwt. valued \$9,181 as compared with 6,543 cwt. worth \$5,118 in 1934. Exports of lime in 1935 amounted to 104,598 cwt. valued at \$50,296 as against 213,491 cwt. at \$151,983 in the preceding year.

Table 1 - Principal Statistics of the Lime Industry in Canada, 1933, 1934 and 1935.

	1933	1934	1935
Number of plants	60	58	54
Capital employed	\$ 8,920,042	8,497,895	5,707,391
Number of employees - On salary	65	62	61
On wages	631	675	695
Total	696	737	756
Salaries and wages - Salaries	\$ 85,861	82,983	84,741
Wages	\$ 394,972	452,509	471,308
Total	\$ 480,833	535,492	556,049
Cost of fuel and electricity	\$ 473,125	606,335	686,186
Process supplies used	\$ (a)	(a)	124,251
Selling value of products	\$ 2,432,306	2,745,797	2,925,791

(a) Information not available

Table 2 - Number of Wage-earners on Payroll or time record on the 15th of each Month or nearest representative date, 1933, 1934 and 1935.

Month	1933		1934		1935	
	Quarry	Kiln	Quarry	Kiln	Quarry	Kiln
January	202	274	247	337	187	351
February	185	247	259	339	186	337
March	209	265	252	332	221	363
April	218	326	259	360	240	391
May	305	367	337	442	292	447
June	337	380	337	440	284	453
July	361	408	311	425	298	476
August	350	375	279	390	303	428
September	339	366	311	399	302	455
October	323	390	330	418	323	494
November	288	350	263	396	264	476
December	273	308	233	341	224	432

Table 3 - Number of Firms, Employees, Salaries & Wages and Lime (quick & hydrated) Sold or Used by Provinces, 1934 and 1935.

Province	Number of Firms	Number of Employees	Salaries and Wages	Production	
				Tons of lime Sold or Used	Value
			\$		\$
1934					
New Brunswick /..	7	75	63,173	24,672	194,363
Quebec	17	272	175,225	108,690	631,984
Ontario	19	215	166,297	191,041	1,536,289
Manitoba	3	68	59,341	13,568	163,608
Alberta	3	20	20,065	7,455	65,697
British Columbia ..	4	87	51,391	19,687	153,856
CANADA	53	757	555,492	368,113	2,745,797
1935					
New Brunswick /..	7	98	82,575	27,603	207,473
Quebec	19	277	172,407	116,473	678,866
Ontario	14	219	181,342	220,140	1,696,867
Manitoba	3	75	57,629	18,615	185,517
Alberta	3	20	23,026	6,584	57,108
British Columbia ..	3	67	39,070	16,004	99,960
CANADA	49	756	556,049	405,419	2,925,791

/ Includes data relating to two firms in Nova Scotia.

Table 4 - Fuel and Electricity Used in the Lime Industry in Canada, 1934 and 1935

Kind	Unit of measure	1934		1935	
		Quantity	Value	Quantity	Value
			\$		\$
Bituminous coal - Canadian	short ton	29,144	173,350	30,889	182,306
Imported	short ton	40,156	194,568	48,383	248,387
Anthracite coal	short ton	65	324	103	601
Coke	short ton	10,035	66,580	9,902	69,224
Lignite	short ton	...	...	66	247
Gasoline (excluding vehicle fuel) Imp. gal.	Imp. gal.	7,738	1,492	15,235	3,328
Fuel oil and diesel oil	Imp. gal.	327,454	15,230	333,759	14,969
Wood	cord	39,467	113,220	40,784	120,236
Gas - Manufactured	M cu. ft.	...	...	...	...
Natural	M cu. ft.	1,450	840	...	...
Other fuel	xxx	...	...	...	...
Electricity purchased	K. W. H.	6,241,560	40,535	7,537,151	46,881
TOTAL	xxx	...	606,335	...	686,186

Electricity generated for own use in 1934 totalled 342,167 K.W.H. and 919,163 K.W.H. in 1935.

Table 5 - Power Equipment Installation in Canadian Lime Plants, 1935.

	Number of units	Total Horse Power
Steam engines and steam turbines	16	580
Diesel engines	10	628
Other internal combustion engines	18	397
Hydraulic water wheels	1	20
Electric motors	309	6,132
Boilers	21	1,643

Table 6 - Lime Sold or Used for Chemical and Other Purposes and Value of Contracts Awarded in Canada, 1930 - 1935.

Year	Lime Sold or Used for Chemical Purposes		Lime Sold or Used for Building or other Non-Chemical Purposes		Value of Construction Contracts Awarded in Canada (a)
	Tons	Value \$	Tons	Value \$	
1930	551,443	2,596,112	139,359	1,442,586	456,999,600
1931	251,837	1,637,319	112,948	1,127,096	315,482,000
1932	255,472	1,758,898	65,178	635,639	132,872,400
1933	235,810	1,664,946	87,730	767,360	97,289,800
1934	229,906	1,598,906	138,207	1,146,891	125,811,500
1935	260,885	1,775,657	144,534	1,150,134	160,305,000

(a) Compiled by McLean Building Reports Ltd.

Table 7 - Production of Lime in Canada, by Provinces, 1935, Showing Purposes for which Used or Sold

		Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba and Alberta	British Columbia	CANADA
QUICKLIME							
Building trades -							
Finishing lime	ton	94	...	246	1,100	...	1,444
	\$	1,011	...	2,328	9,499	...	12,838
Masons' lime	ton	650	3,463	8,760	2,091	...	14,964
	\$	6,000	32,147	53,123	23,084	...	114,354
Sand-lime brick	ton	...	162	5,214	...	...	5,376
	\$	...	847	32,641	...	...	33,488
Agriculture	ton	700	...	76,001	...	...	76,701
	\$	4,067	...	568,201	...	...	572,268
CHEMICAL -							
Smelters	ton	...	1,374	4,725	813	755	7,667
	\$	...	13,058	25,420	8,133	3,752	50,363
Iron and steel mills	ton	10,998	114	8,214	...	...	19,326
	\$	80,408	1,032	59,409	...	...	140,849
Cyanide mills	ton	...	...	24,687	4,849	621	30,157
	\$	...	...	177,187	42,871	6,454	226,512
Pulp and paper mills	ton	6,026	53,602	3,826	7,375	7,069	77,890
	\$	46,355	283,167	21,399	47,394	52,385	450,700
Glass works	ton	...	...	5,003	88	...	5,091
	\$	...	...	34,558	834	...	35,392
Sugar refineries	ton	200	90	7,072	4,175	...	11,537
	\$	1,700	900	57,441	33,400	...	93,441
Fertilizers	ton	...	...	17	...	...	17
	\$	...	...	119	...	...	119
Tanneries	ton	...	51	2,343	...	...	2,394
	\$	...	510	15,899	...	...	16,409
Insecticides	ton	...	...	583	...	...	583
	\$	...	...	4,083	...	...	4,083
Other chemical works	ton	...	26,961	47,837	129	...	74,927
	\$	...	175,239	402,348	1,063	...	578,650
Dealers - Uses Unspecified	ton	1,899	3,769	2,110	328	4,240	12,346
	\$	15,588	28,556	15,560	3,674	21,073	84,451
Other consumers	ton	...	1,500	123	...	...	1,623
	\$	...	10,500	1,005	...	...	11,505
TOTAL QUICKLIME	ton	20,567	91,086	196,761	23,948	12,685	342,047
	\$	155,129	545,956	1,470,721	169,952	83,664	2,425,463

Table 7 -
Production of Lime in Canada, by Provinces, 1935, Showing Purposes for which Used or Sold.
(concluded)

		Nova Scotia and New Brunswick	Quebec	Ontario	Mani- toba and Al- berta	British Columbia	CANADA
HYDRATED LIME							
Building trades -							
Finishing lime	ton	40	...	15,002	4,118	...	19,160
	\$	440	...	160,553	70,545	...	231,338
Masons' lime	ton	250	108	5,628	...	...	5,986
	\$	2,350	815	40,090	...	...	43,255
Sand-lime brick	ton	...	...	...	...	...	...
	\$
Agriculture	ton	650	917	475	...	1,507	3,549
	\$	6,000	5,536	4,527	...	7,399	23,462
CHEMICAL							
Smelters	ton	...	...	75	...	530	605
	\$	...	...	694	...	2,602	3,296
Iron and steel mills	ton	...	...	23	...	...	23
	\$	...	...	216	...	...	216
Cyanide mills	ton	...	2,633	3	...	15	2,651
	\$	...	15,797	28	...	74	15,899
Pulp and paper mills	ton	5,600	18,452	668	...	157	24,877
	\$	40,000	86,590	6,010	...	771	133,371
Glass works	ton	...	...	...	...	...	...
	\$
Sugar refineries	ton	10	355	...	...	...	365
	\$	90	2,255	...	...	...	2,345
Tanneries	ton	...	258	180	...	...	438
	\$	...	1,954	1,618	...	...	3,572
Fertilizers	ton	...	295	118	...	...	413
	\$	...	2,170	1,091	...	...	3,261
Insecticides	ton	283	...	173	...	...	456
	\$	1,840	...	1,600	...	...	3,440
Other chemical works	ton	...	553	774	133	...	1,460
	\$	...	4,253	7,158	2,328	...	13,739
Dealers - Uses unspecified	ton	203	1,814	141	...	1,110	3,268
	\$	1,624	13,525	1,371	...	5,450	21,970
Other consumers	ton	...	2	119	...	...	121
	\$	...	15	1,190	...	...	1,205
TOTAL HYDRATED LIME	ton	7,036	25,387	23,379	4,251	3,319	63,372
	\$	52,344	132,910	226,146	72,673	16,296	500,369
GRAND TOTAL	ton	27,603	116,473	220,140	25,199	16,004	405,419
	\$	207,473	678,866	1,696,867	242,625	99,960	2,925,791

Table 8 - Production of Lime in Canada, by Provinces, 1934, Showing Purposes for which Used or Sold.

	Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba and Alberta	British Columbia	CANADA
<u>QUICKLIME</u>						
Building trades -						
Finishing lime ...ton	...	1,518	3,384	1,613	...	6,515
\$	...	13,969	21,305	14,614	...	49,888
Masons' lime .....ton	1,210	1,929	9,690	1,394	...	14,223
\$	12,018	15,694	66,649	14,214	...	108,575
Sand-lime brick ..ton	...	1,249	2,321	...	...	3,570
\$	...	7,261	16,912	...	...	24,173
Agriculture .....ton	774	...	67,580	...	...	68,354
\$	5,757	...	505,300	...	...	511,057
<u>CHEMICAL -</u>						
Smelters ton	...	437	2,634	1,075	1,320	5,466
\$	...	4,049	14,598	10,754	9,887	39,288
Iron and steel mills ton	8,298	222	8,612	...	...	17,132
\$	63,630	1,821	60,255	...	...	125,706
Cyanide mills ton	...	...	19,479	4,126	483	24,088
\$	...	...	135,957	33,645	5,250	174,852
Pulp and paper mills ton	4,823	44,997	3,239	6,965	11,544	71,568
\$	38,306	239,665	19,784	46,894	95,120	439,769
Glass works ton	...	...	2,226	...	...	2,226
\$	...	...	16,472	...	...	16,472
Sugar refineries ... ton	185	20	3,198	4,708	...	8,111
\$	1,500	140	47,573	40,000	...	89,213
Fertilizer ton	...	...	22	...	...	22
\$	...	...	154	...	...	154
Tanneries ton	...	616	2,284	...	...	2,900
\$	...	4,080	15,859	...	...	19,939
Insecticide ton	...	...	725	...	...	725
\$	...	...	5,075	...	...	5,075
Other chemical works ton	...	29,170	40,088	113	...	69,371
\$	...	189,779	339,036	938	...	529,753
Dealers - Uses Unspeci- fied ton	1,957	4,680	3,235	163	3,374	13,409
\$	18,551	33,180	22,029	2,159	25,271	101,190
Other consumers .....ton	...	268	43	131	...	442
\$	...	976	293	1,883	...	3,152
TOTAL QUICKLIME ... ton	17,247	85,106	168,760	20,288	16,721	308,122
\$	139,762	510,614	1,287,251	165,101	135,528	2,238,256
<u>HYDRATED LI</u>						
Building trades -						
Finishing lime .. ton	...	...	14,647	3,650	...	18,297
\$	...	...	180,288	62,717	...	243,005
Masons' lime ton	73	184	4,728	...	...	4,985
\$	591	1,414	43,548	...	...	45,553
Sand-lime brick ..ton	125	...	635	...	...	760
\$	1,235	...	4,516	...	...	5,751
Agriculture ton	800	1,086	575	...	1,404	3,865
\$	7,800	6,100	5,419	...	8,676	27,995

Table 8 - Production of Lime in Canada, by Provinces, 1934, Showing Purposes for which Used or Sold (concluded)

	Nova Scotia and New Brunswick	Quebec	Ontario	Manitoba and Alberta	British Columbia	CANADA
<u>HYDRATED LIME - concluded</u>						
CHEMICAL -						
Smelters	ton	320	102	...	325	747
	\$	2,100	918	...	2,008	5,026
Iron and steel mills	ton	...	8	...	...	8
	\$	...	72	...	...	72
Cyanide mills	ton	2,052	...	...	30	2,082
	\$	12,533	...	...	185	12,718
Pulp and paper mills	ton	5,850	16,362	110	...	326
	\$	40,950	75,455	990	...	2,014
Glass works	ton	...	100	...	...	100
	\$	...	510	...	...	510
Sugar refineries	ton	8	311	...	...	319
	\$	72	1,913	...	...	1,985
Fertilizer	ton	...	...	152	...	152
	\$	...	...	1,368	...	1,368
Tanneries	ton	...	150	257	...	407
	\$	...	940	2,313	...	3,253
Insecticide	ton	569	5	245	...	819
	\$	3,953	20	2,205	...	6,178
Other chemical works	ton	...	884	46	85	1,015
	\$	...	6,262	417	1,487	8,166
Dealers - Uses unspeci- fied	ton	...	2,087	776	...	881
	\$	...	13,613	6,984	...	5,445
Other consumers	ton	...	43	...	...	43
	\$	...	510	...	...	510
TOTAL HYDRATED LIME	ton	7,425	23,584	22,281	3,735	2,966
	\$	54,601	121,370	249,038	64,204	18,328
GRAND TOTAL	ton	24,672	108,690	191,041	24,023	19,687
	\$	194,363	631,984	1,536,289	229,305	153,856

Table 9 - Imports into Canada and Exports of Lime and Various Lime Compounds, 1934 and 1935.

		1 9 3 4		1 9 3 5	
		Quantity	Value	Quantity	Value
			\$		\$
IMPORTS					
Lime	Cwt.	6,543	5,118	12,706	9,181
Calcium chloride in packages of not less than 25 pounds	lb.	6,634,500	66,957	924,700	8,163
Calcium chloride in packages of less than 25 pounds	lb.	460	107	652	175
Calcium chloride not in solution for road treating purposes	lb.	44,940,900	480,623	28,019,000	268,410
Calcium arsenate	lb.	165,077	9,123	144,023	7,786
Chloride of lime and hypochlorite of lime in packages not less than 25 pounds	lb.	4,585,300	75,500	3,413,900	61,371
Chloride of lime and hypochlorite of lime in packages of less than 25 pounds	lb.	57,293	6,048	47,229	5,781

Table 9 - Imports into Canada and Exports of Lime and Various Lime Compounds, 1934 and 1935. (concluded)

	1	9	3	4	1	9	3	5
	Quantity		Value		Quantity		Value	
			\$				\$	
<u>EXPORTS -</u>								
Lime	cwt.	213,491	151,983	104,598	50,296			
Acetate of lime	cwt.	30,754	53,245	27,433	45,570			

OPERATORS IN CANADIAN LIME INDUSTRY, 1935.

<u>Name of Operator</u>	<u>Head Office</u>	<u>Plant Location</u>
<u>NOVA SCOTIA -</u>		
Dominion Steel & Coal Corp. Ltd.	Sydney	Sydney
Eastern Lime Co. Ltd.	Windsor	Windsor
<u>NEW BRUNSWICK -</u>		
Bathurst Power and Paper Co. Ltd.	Bathurst	Bathurst
Purdy & Green, Ltd.	323 Main St., Saint John	Saint John
Randolph & Baker, Ltd.	Randolph	Randolph
Saint John Lime Co.	Brookville	Brookville
Snowflake Lime Ltd.	3 Pokiok Road, Saint John	Saint John
<u>QUEBEC -</u>		
Arnaud & Beaudry	Joliette	Joliette
Boivin, Arthur	Pont Rouge	Pont Rouge
Canada Lime Products Co.	7403 Drolet St., Montreal	St. Vincent de Paul
Canada Lime & Stone, Ltd.	St. Marc des Carrières	St. Marc des Carrières
Côté, Xavier	Métabetchouan	Métabetchouan
Desfond, Gaspard	St. Cuthbert	St. Cuthbert
Dominion Lime Co.	Lime Ridge	Lime Ridge
Drouin, Eva C.	Ste. Justine	Dorchester Co.
Filion, Narcisse	St. Joachim	St. Joachim
Gagné, Octave	St. Ulric	St. Ulric
Héon and Héon	St. Louis de France	St. Louis de Champ lain
Lalumière, Joseph	St. Dominique de Bagot	St. Dominique de Bagot
La Trappe de N. D. de Mistassine	Village des Pères	St. Jean
Limoges, Henri	552 Poupart St., Montreal	St. Michel
Mercure, C.	9 rue St. Denis, St. Hyacinthe	St. Dominique Bagot Co.
Shawinigan Chemicals Ltd.	Box 2670, Montreal	Shawinigan Falls
Standard Lime Co. Ltd.	Joliette	St. Paul de Joliette, St. Marc des Carrières
Trottier, David	St. Marc des Carrières	St. Marc des Carrières
Villeneuve, R.	St. Jerome	St. Jerome

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OPERATORS IN CANADIAN LIME INDUSTRY, 1935 - (concluded)

<u>Name of Operator</u>	<u>Head Office</u>	<u>Plant Location</u>
<u>ONTARIO -</u>		
Bell, Harry	R. R. 4, Chesley	Grey county
Brown's Lime Works	491 Ninth Ave. E., Owen Sound	Owen Sound
Brunner, Mond Canada, Limited	Canadian Bank of Commerce Bldg., Toronto	Amherstburg
Cameron, W. M.	Carleton Place	Carleton Place
Canada and Dominion Sugar Co. Ltd.	Chatham	Chatham
Canadian Gypsum Co. Ltd.	1221 Bay St., Toronto	Guelph
Dominion Rock Products Ltd.	941 Dominion Square Bldg., Montreal	Eganville
Gypsum, Lime & Alabastine Canada Ltd.	Paris	Beachville, Hespeler, Halton Co.
Innerkip Lime & Stone Co. Ltd.	Beachville	Beachville
Jamieson Lime Co.	Renfrew	Renfrew Co.
Laurentian Stone Co. Ltd.	195 Nicholas St., Ottawa	Ottawa (x)
North American Cyanamid Ltd.	1901 Royal Bank Bldg., Toronto	Niagara Falls
Rockwood Lime Co.	Box 46, Rockwood	Eramosa Tp.
Shane Lime Co.	Eganville	Grattan Tp.
(x) Stone quarried in Ontario is calcined in Hull, Quebec.		
<u>MANITOBA -</u>		
Gillis Quarries Ltd.	Richard & Spruce Sts., Winnipeg	Garson, Poplarfield
Gypsum, Lime & Alabastine Can. Ltd.	Paris	Winnipeg
Winnipeg Supply & Fuel Co. Ltd.	812 Boyd Bldg., Winnipeg	Spearhill, Stonewall
<u>ALBERTA -</u>		
Canadian Sugar Factories Ltd.	Raymond	Raymond
Loders Lime Co. Ltd.	Kananaskis	Kananaskis
Summit Lime Works	Box 273, Lethbridge	N. Lethbridge
<u>BRITISH COLUMBIA -</u>		
Lyon, F.	Hedley	Hedley
Pacific Lime Co. Ltd.	744 West Hastings St., Vancouver	Texada Island
Pacific Mills Ltd.	Raymur Ave., Vancouver	Ocean Falls

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