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Mining, Metallurgical and Chemical Branch,
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THE ACIDS, ALKALIES, SALTS AND COMPRESSED GASES INDUSTRY IN CANADA, 1925

Production in the acids, alkalies, salts and compressed gases industry in Canada in 1925 amounted in value to \$27,483,395, an increase of more than a million dollars over the corresponding figure for 1924.

(a) Acids, Alkalies and Salts - Output from the 20 plants in Canada producing acids, alkalies and salts as principal products in 1925 totalled \$25,396,782 and as raw materials cost \$12,472,687 the value added by manufacturing processes amounted to \$12,924,095. Capital employed stood at \$32,236,424 and employment was given to 2,084 persons to whom \$2,992,695 was paid in salaries and wages.

During the year a new plant commenced to produce sulphuric acid from waste smelter gases while one plant, formerly engaged in the production of sulphuric and nitric acids and general chemicals, did not operate during the year. Of the 20 plants in operation, 6 were in Quebec, 10 in Ontario, 3 in British Columbia and 1 in Nova Scotia.

Sulphuric acid was made in 8 different plants, nitric acid in 2 plants and hydrochloric acid in 3 plants. Cyanamide, bleaching powder, sodium cyanide, acetaldehyde glacial acetic acid, phosphorus, liquid chlorine were each made by only 1 firm in Canada.

(b) Compressed Gases - Production of compressed gases in 1925 totalled \$2,086,613 as compared with \$2,051,443 in the preceding year. Capital employed amounted to 3.4 million dollars, employment was given to 325 persons and expenditures in salaries and wages totalled \$481,595.

Of the 20 firms reporting in 1925, 2 were located in Nova Scotia, 4 in Quebec, 8 in Ontario, 3 in Manitoba, 1 in Alberta and 2 in British Columbia. Acetylene was made in 12 different plants, carbon dioxide in 6 plants, oxygen in 9 plants, aqua and anhydrous ammonia in 1 plant.

SUMMARY STATISTICS OF THE ACIDS, ALKALIES, SALTS AND COMPRESSED GASES INDUSTRY IN CANADA, 1921-1925.

Year	No. of Plants	Capital Employed	No. of Employees	Salaries and Wages	Cost of Materials	Selling Value of Products	Value Added by Manufacturing
<u>Acids, Alkalies and Salts</u>							
1921.....	24	29,945,120	1,496	2,496,016	5,034,729	11,867,268	6,832,539
1922.....	21	30,811,922	1,880	2,437,814	5,385,803	14,970,998	9,085,195
1923.....	24	31,963,419	2,435	3,318,679	11,147,442	21,747,547	10,600,105
1924.....	20	30,182,113	2,121	3,025,998	11,214,692	24,190,274	12,975,582
1925.....	20	32,236,424	2,084	2,992,695	12,472,687	25,396,782	12,924,095
<u>Compressed Gases</u>							
1921.....	26	4,218,484	318	508,932	301,839	2,001,893	1,700,059
1922.....	25	4,351,232	309	479,517	280,666	1,908,269	1,627,603
1923.....	23	4,472,396	300	461,764	488,879	2,165,445	1,676,566
1924.....	21	4,115,958	292	443,322	401,951	2,051,443	1,649,497
1925.....	20	3,420,104	325	481,595	370,569	2,086,613	1,716,044
<u>TOTAL</u>							
1921.....	50	34,163,604	1,814	2,004,948	5,336,568	13,869,166	8,532,598
1922.....	46	35,163,154	2,189	2,917,361	6,166,469	16,879,267	10,712,798
1923.....	47	36,436,315	2,788	3,780,443	11,636,321	23,912,992	12,276,671
1924.....	41	34,298,071	2,413	3,469,320	11,616,643	26,241,722	14,625,079
1925.....	40	35,656,528	2,409	3,474,290	12,843,256	27,483,395	14,640,139

46-505

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D. C. 20250

STATE OF CALIFORNIA

WHEREAS, certain lands owned by the State of California are situated in the County of [County Name], and the same are more particularly described in the accompanying plat of maps, and the same are to be sold to the highest bidder for cash at public auction, to-wit: [Date and Time] at [Location];

and whereas, the said lands are to be sold to the highest bidder for cash at public auction, to-wit: [Date and Time] at [Location];

and whereas, the said lands are to be sold to the highest bidder for cash at public auction, to-wit: [Date and Time] at [Location];

and whereas, the said lands are to be sold to the highest bidder for cash at public auction, to-wit: [Date and Time] at [Location];

and whereas, the said lands are to be sold to the highest bidder for cash at public auction, to-wit: [Date and Time] at [Location];

Section	Block	Tract	Acres	Approximate Value	Remarks
1	1	1	1.00	100.00	
2	2	2	2.00	200.00	
3	3	3	3.00	300.00	
4	4	4	4.00	400.00	
5	5	5	5.00	500.00	
6	6	6	6.00	600.00	
7	7	7	7.00	700.00	
8	8	8	8.00	800.00	
9	9	9	9.00	900.00	
10	10	10	10.00	1000.00	
11	11	11	11.00	1100.00	
12	12	12	12.00	1200.00	
13	13	13	13.00	1300.00	
14	14	14	14.00	1400.00	
15	15	15	15.00	1500.00	
16	16	16	16.00	1600.00	
17	17	17	17.00	1700.00	
18	18	18	18.00	1800.00	
19	19	19	19.00	1900.00	
20	20	20	20.00	2000.00	

MATERIALS USED IN THE ACIDS, ALKALIES, SALTS AND COMPRESSED GASES INDUSTRY IN CANADA, 1924 and 1925

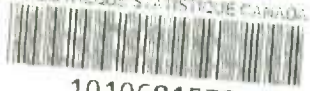
Materials Used	Unit of Measure	1924		1925	
		Quantity	Cost at Works \$	Quantity	Cost at Works \$
ACIDS, ALKALIES AND SALTS					
Purchased materials used-					
Acids-					
Hydrochloric.....	lb.	3,520	157	1,595	144
Nitric.....	lb.	20,524	1,453	48,316	3,388
Sulphuric, 66° Be.....	lb.	2,457,699	50,207	2,965,244	36,605
Other acids ¹.....	...	...	859	...	5,813
Ammonia anhydrous and ammonia liquor..	lb. NH ₃	199,764	31,183	164,658	25,510
Ammonium sulphate.....	lb.	872	52	1,218	45
Barium peroxide.....	lb.	...	1,393	11,409	1,393
Calcium carbonate (limestone).....	ton	223,107	417,151	266,660	487,722
Calcium oxide and hydroxide (quick and slaked lime) ².....	...	3,106	34,168	3,170	33,005
Calcium compounds, n.e.s. ³.....	...	...	685,195	...	616,449
Carbon electrodes.....	lb.	5,827,316	303,783	6,695,808	329,379
Coke.....	ton	73,156	624,533	84,679	724,292
Coal.....	ton	2,238	16,366	3,219	19,379
Charcoal.....	lb.	732,795	7,943	115,400	1,082
Copper Sulphate.....	lb.	48,506	2,547	47,230	2,242
Iron sulphide (pyrites).....	ton	19,706	91,202	15,114	76,487
Silica.....	ton	14,283	49,839	4,091	16,377
Sodium carbonate (soda ash).....	lb.	608,804	10,643	1,097,411	11,804
Sodium chloride, including brine.....	ton	...	111,538	105,942	128,814
Sodium hydroxide.....	ton	146	11,189	128	9,304
Sodium nitrate, (chile saltpetre).....	ton	854	62,806	938	57,919
Sodium sulphate (salt cake).....	lb.	33,559	699	15,348	238
Sodium sulphate (Glauberg ⁴ salt).....	lb.	...	...	20,814	392
Sodium compounds, n.e.s. ⁵	ton	...	6,627	...	23,342
Sulphur (brimstone).....	ton	15,880	290,276	26,202	359,519
Containers.....	...	...	561,251	...	548,586
All other materials ⁴.....	...	...	436,336	...	436,758
Total Purchased Materials Used.....		...	3,788,776	...	3,955,988
Intermediate Products Used as Materials -					
Sulphuric acid 50° Be.....	lb.	1,074,400	3,990	1,690,000	6,070
Sulphuric acid 66° Be.....	lb.	4,375,021	37,697	2,962,391	26,608
Sulphuric acid 100%.....	lb.	503,674	478	1,831,518	13,736
Total Intermediates Used.....		...	7,425,916	...	8,516,699
TOTAL ACIDS, ALKALIES AND SALTS.....		...	11,214,692	...	12,472,687
COMPRESSED GASES					
Acetylene.....	cubic ft.	9,825,956	60,514	12,084,397	72,332
Acetone.....	lb.	65,342	17,173	89,709	16,463
Calcium carbide.....	ton	1,068	85,507	1,414	110,180
Coke.....	ton	4,434	39,606	5,207	35,099
Cylinders purchased during year.....	No.	3,331	72,763	775	11,039
Other containers.....	...	...	500	...	...
All other materials ⁶.....	...	...	125,888	...	125,456
TOTAL COMPRESSED GASES.....		...	401,951	...	370,569
GRAND TOTAL.....		...	11,616,643	...	12,843,256

1. Includes oxalic, phosphoric, arsenious, boric, etc.
2. Includes calcium acetate, chloride, carbide cyanamide, fluoride and hydrochloric.
3. Includes bichromate, chlorate, cyanide, nitrite, silicate, sulphide, etc.
4. Includes iron sulphate, nickel sulphate, zinc sulphate, phosphate rock, oils, greases, acetylene, litharge, and other materials.
5. Includes nitre cake, crude phosphorus, lime, calcined salt cake, nitric acid, hydrogen sulphide, calcium carbide, calcium cyanamide, nitrogen, and electrode paste valued at \$7,383,751 in 1924 and \$8,470,285 in 1925.
6. Includes ammonia liquor, potassium carbonate, lime and other materials.

PRODUCTS OF THE ACIDS, ALKALIES, SALTS AND COMPRESSED GASES INDUSTRY IN CANADA, 1924-1925

Products	Unit of Measure	1 9 2 4		1 9 2 5	
		Quantity	Selling Value	Quantity	Selling Value
<u>ACIDS, ALKALIES AND SALTS</u>					
Products made for sale -					
Acids -					
Hydrochloric 20° Be.....	lb.	5,190,032	79,697	7,218,821	101,859
Nitric (40-42° or 1.4 sp.gr.).....	lb.	771,668	72,918	743,408	65,982
Sulphuric - 50° Be.....	ton	8,323	64,619	13,059	96,472
Sulphuric - 60° Be.....	ton	6,081	95,356	5,925	117,181
Sulphuric - 66° Be.....	ton	30,341	577,685	39,225	697,257
Sulphuric - 100%.....	ton	25,900	494,419	25,414	401,563
Sulphuric fuming ¹	ton	...	...	217	1,352
Calcium Compounds.....	...	...	5,917,146	....	5,733,279
Chloride liquid.....	lb.	9,306,000	296,012	12,454,070	388,397
Sodium sulphate (Glauber's ¹ salt).....	ton	1,458	36,602	1,442	33,559
Sodium sulphate (salt cake).....	ton	1,648	32,948	2,248	31,529
Sodium compounds, n.e.s. ².....	...	...	5,259,637	...	5,563,634
All other products ³.....	...	...	3,826,162	...	3,644,425
Total Products for sale.....	...	...	16,753,201	...	16,874,490
<u>Intermediate products made for use</u>					
Sulphuric acid 66° Be.....	ton	2,425	43,787	2,029	36,057
Sulphuric acid 100%.....	ton	252	478	916	13,736
Products, n.e.s. ⁴.....	...	...	7,392,808	...	8,472,499
Total Intermediates.....	...	...	7,437,073	...	8,522,292
TOTAL ACIDS, ALKALIES AND SALTS.....	...	...	24,190,274	...	25,396,782
<u>COMPRESSED GASES</u>					
Acetylene.....	cubic ft.	19,229,042	485,839	24,384,431	620,007
Carbon dioxide.....	lb.	23,428,953	356,679	3,650,547	372,060
Oxygen.....	cubic ft.	68,331,575	893,688	68,685,153	897,942
Other products ⁵.....	...	...	315,242	...	196,604
TOTAL COMPRESSED GASES.....	...	...	2,051,448	...	2,086,613
GRAND TOTAL.....		...	26,241,722	...	27,483,395

1. Includes bisulphite, oxide, cyanamide made by American Cyanamide Co., hypochlorite (bleach) made by the Canadian Salt Co., and carbide made by Canada Carbide Company and the Union Carbide Co. of Canada, Ltd.
2. Includes nitre cake, bisulphite, carbonate, hydroxide, and cyanamide, each of which was made by only one firm.
3. Includes acetaldehyde, aluminium sulphate, acetylene, acetic acid made by Grasselli Chemical Company, Ltd., acetic glacial made by Canadian Electro Products Co., phosphorus made by Electric Reduction Co., Ltd., hydrofluosilicic acid, sulphurous acid, copper sulphate, copper cyanide, iron phosphide, paraldehyde, hydrogen peroxide, acetylene black, filter alum, nitrated iron, ferro-silicon, lead arsenate, insecticides, and various other products.
4. Includes nitre cake, crude phosphorus, lime, calcined salt cake, nitric acid, calcium carbide, nitrogen, and crude cyanamide.
5. Includes ammonia aqua, ammonia anhydrous, nitrogen and other products.



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Year	Value	Value	Value	Value
1960	10,000	10,000	10,000	10,000
1961	10,000	10,000	10,000	10,000
1962	10,000	10,000	10,000	10,000
1963	10,000	10,000	10,000	10,000
1964	10,000	10,000	10,000	10,000
1965	10,000	10,000	10,000	10,000
1966	10,000	10,000	10,000	10,000
1967	10,000	10,000	10,000	10,000
1968	10,000	10,000	10,000	10,000
1969	10,000	10,000	10,000	10,000
1970	10,000	10,000	10,000	10,000
1971	10,000	10,000	10,000	10,000
1972	10,000	10,000	10,000	10,000
1973	10,000	10,000	10,000	10,000
1974	10,000	10,000	10,000	10,000
1975	10,000	10,000	10,000	10,000
1976	10,000	10,000	10,000	10,000
1977	10,000	10,000	10,000	10,000
1978	10,000	10,000	10,000	10,000
1979	10,000	10,000	10,000	10,000
1980	10,000	10,000	10,000	10,000
1981	10,000	10,000	10,000	10,000
1982	10,000	10,000	10,000	10,000
1983	10,000	10,000	10,000	10,000
1984	10,000	10,000	10,000	10,000
1985	10,000	10,000	10,000	10,000
1986	10,000	10,000	10,000	10,000
1987	10,000	10,000	10,000	10,000
1988	10,000	10,000	10,000	10,000
1989	10,000	10,000	10,000	10,000
1990	10,000	10,000	10,000	10,000
1991	10,000	10,000	10,000	10,000
1992	10,000	10,000	10,000	10,000
1993	10,000	10,000	10,000	10,000
1994	10,000	10,000	10,000	10,000
1995	10,000	10,000	10,000	10,000
1996	10,000	10,000	10,000	10,000
1997	10,000	10,000	10,000	10,000
1998	10,000	10,000	10,000	10,000
1999	10,000	10,000	10,000	10,000
2000	10,000	10,000	10,000	10,000
2001	10,000	10,000	10,000	10,000
2002	10,000	10,000	10,000	10,000
2003	10,000	10,000	10,000	10,000
2004	10,000	10,000	10,000	10,000
2005	10,000	10,000	10,000	10,000
2006	10,000	10,000	10,000	10,000
2007	10,000	10,000	10,000	10,000
2008	10,000	10,000	10,000	10,000
2009	10,000	10,000	10,000	10,000
2010	10,000	10,000	10,000	10,000
2011	10,000	10,000	10,000	10,000
2012	10,000	10,000	10,000	10,000
2013	10,000	10,000	10,000	10,000
2014	10,000	10,000	10,000	10,000
2015	10,000	10,000	10,000	10,000
2016	10,000	10,000	10,000	10,000
2017	10,000	10,000	10,000	10,000
2018	10,000	10,000	10,000	10,000
2019	10,000	10,000	10,000	10,000
2020	10,000	10,000	10,000	10,000

1. The first section of the report deals with the general characteristics of the population of the country. It provides a detailed description of the population in terms of its size, composition, and distribution. The data is presented in a clear and concise manner, allowing for easy comparison with previous years.

2. The second section of the report focuses on the economic activities of the population. It discusses the various sectors of the economy, including agriculture, industry, and services. The report highlights the growth of the service sector and the decline of the agricultural sector over the period covered.

3. The third section of the report examines the social and cultural aspects of the population. It discusses the levels of education, health care, and social services. The report notes the significant improvements in these areas over the past few years, reflecting the government's commitment to social development.

4. The fourth section of the report provides a summary of the findings and conclusions. It emphasizes the overall positive trends in the country's development and the challenges that remain. The report concludes with a call for continued efforts to improve the living standards of the population.